The essentialist and constructivist views of emotions: Implications for parents

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As parents, we want to raise our children to become creative, happy, and productive individuals in the future. I am currently raising two small children. More than anything, I find parents' job is to explore with and educate your children on the landscape of different emotions and how to deal with emotional situations appropriately. However, it is important to acknowledge that even as an adult, I cannot say I have full emotional control and a full scientific understanding of emotions. This essay will explore some aspects of the current scientific theories of emotions and their implications for parenting.

A parenting conundrum

We are now facing a new social-emotional reality shaped by our technological inventions. The high speed and hyperconnectivity of information sharing in social media constantly introduce a sense of fear, uncertainty, and ambiguity in our lives. Modernity has upset all traditional social roles in most societies: young people move out very early, most households are double-income, older generations have immense gaps in understanding what is going on, etc. Internet and easy traveling are bringing us new cultural values and generating new sub-cultures with totally novel values. In many countries, workplaces, and schools, facial recognition, artificial intelligence, biometrics, and emotion-tracking technologies are put into practice and putting pressure on how we

ought to feel, express, and act (Williamson, 2017; Aho and Duffield, 2020; Ivanhoe, 2020; McStay, 2018).

We each have different emotional reactions towards each of these changes, and they change with time. Perhaps more than we might want, our emotions greatly influence our actions and conscious experiences in the world. It is clear that forming a correct understanding of emotion and having the right emotional response to events worldwide is the most important asset parents, teachers, schools, and universities can equip for our children.

However, it is a conundrum that we are carrying out that enormous task of making our children grittier (Duckworth, 2016), more antifragile (Taleb, 2012), more creative (Vuong & Napier, 2014), and ultimately, happier, yet, the scientific communities are still debating what is the best way of understanding and interpreting emotions.

The essentialist view of emotions

The classical views of emotion, at their core, contain the view of *essentialism*. Theories such as the basic emotion theories, causal appraisal theories, black-box functionalism-based emotions theories view fixed categories of emotions, which have definite, distinct underlying causal mechanisms (for further details, see Barrett (2017a)). Barrett (2017b) argues in her book, *How emotions are made: The secret lives of the brain*, the *essentialist view of emotions* is the results of thousands of years of Western thoughts from Plato and Aristotle to modern-day scientists such as Steven Pinker or Paul Ekman.

Barret points out that the tech-communities have largely held this view of emotion and developed algorithms and technologies accordingly. For example, underlying many of facial recognition, sentiment analysis, and emotions-tracking algorithms, there is an assumption of the *cross-cultural universality* of the eight basic emotions (anger, fear, anticipation, trust, surprise, sadness, joy, and disgust) proposed by Paul Ekman (1999) (McStay, 2018; Mohammad & Turney, 2013). There are many problems in terms of bias and accuracy with this trend, as a recent review in *Nature* has explained (Heaven, 2020).

The Bayesian brain and allostasis

In recent decades, the advancements in neuroscientific techniques have generated a paradigm shift in understanding emotions. This new understanding is centered around the concepts of the *predictive brain* (the *Bayesian brain*) (Friston, 2012; Otten, Seth, & Pinto, 2017) and *allostasis* (Sterling, 2012). The allostatic viewpoint states that brains evolved to move the body, which means it has to efficiently allocate resources for the internal organs within an animal body to maximize the chance of survival, growth, and reproduction. Allostasis implies the brain must constantly assess the body's needs to regulate the body according to *metabolic cost and benefits analysis* (Sterling, 2012). The predictive brain viewpoint holds that brains are stored in a dark cage, working with only the body's electrical signals fo produce the best-guesses about the external environment. These best-guesses form an internal model of the world for all the animals. The internal model of the world is Bayesian in nature; it is predictive rather than reactive (Barrett, 2017a). Being Bayesian means the brain uses past experiences to form the world's internal model, and it constantly updates the internal model when new information and data come in.

The constructivist view of emotions

Taking these views together, scientists have proposed several new theories of emotions. All take on a *constructivist* approach (Gendron, Crivelli, & Barrett, 2018). Emotions are now theorized as being constructed in the brain, similar to how all other perceptions are constructed (Barrett, 2017a). The constructed emotion theory states that: "The brain starts with current conditions and creates an ad hoc, embodied concept, reinstating prior experiences that are similar to the present. In this way, a brain is continuously assembling prediction signals that prepare the body for situation-specific action, creating perceptions and experiences." Rational constructivism states that human infants start their emotional development with a set of "proto-conceptual primitives" and end this process with developing a set of "domain-specific intuitive theories." In this process of forming emotional concepts and categories, the brain involves (a) language and symbol learning, (b) Bayesian inductive learning, (b) constructive thinking

mechanisms such as analogy, mental imagery, and thought experiment (Hoemann, Xu, & Barrett, 2019).

The constructivist view of emotion suggests that emotions are abstract conceptual categories shaped by the brains' process, trying to make best-guess predictions about the external world to effectively and efficiently allocate metabolic resources for survival and fitness. This view suggests that the way we infer emotions in *ourselves* and others is heavily contextually and culturally dependent, rather than universal underlying causes-and-effects mechanisms to infer emotions.

Implications for parents

The new theories of emotions are very technical and counter-intuitive, but, in many ways, they capture very intuitive truths about our minds and behaviors if we spend any time at all meditating and reflecting on our emotional lives.

Be cautions in labeling emotions

Understanding that emotions are the results of our internal mental model of the world that helps guide our movements, socially and physically, parents should be more cautious when labeling their children's emotions. The rational constructivist view of emotion suggests when we label for children how they ought to feel, we are handing to them a set of internal models of the world. The key is to understand these internal models of the world might not be correct. For example, when my three-year-old daughter trembles on top of a high slide, it could either be excitement or fear, or both. I think it will be good to convey that she can choose the emotional labels of her experiences.

Cultivating disciplined curiosity

Inspired by Vuong and Napier's (2014) *3D method of creativity*, which includes in-discipline expertise, out-of-discipline insights, and a disciplined process to create innovation, I think cultivating *a disciplined curiosity* about their emotional lives in both the parents and the children will be beneficial for emotional development.

Emotional responses often feel very innate to ourselves: The way we feel about and react to certain events, and people can feel like they are an intrinsic, inherent, immutable parts of ourselves. Yet, in the constructivist view of emotions, they represent our internal models of the world. The brain can either go with the world's existing internal models or be open to new information and values to reshape it. In truth, it is possible to unlearn the conditionings handed to us by our past experiences and ex. We all know people who learn a new emotional response by immersing in a new culture or expose himself or herself to new values and patterns of thinking, i.e., the *acculturation* and *cultural additivity process* (Vuong, 2016; Vuong & Napier, 2015; Vuong et al., 2018; Vuong et al., 2020).

Teaching children the respect of potential dangers in the world very early on

One thing father often does with their kids is rough-and-tumble play. This kind of play allows children to learn tacitly what hurts, what doesn't. Similarly, allowing children to play and explore safely with potentially dangerous things: fire, high places, water, etc. mean a lot for their emotional development. A lot of this tacit knowledge (Polanyi, 2009) cannot be learned effectively by verbal and linguistic means. It directly follows the constructivist view of emotions that as our emotions are constructed to help us navigate the social and physical world, emotional learning can be impaired without the experiential input about the physical and social world's dangers.

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