Austin Journal of Surgery

Open Access

Austin Publishing Group

Special Article – Short Communication

Empathy

Michael Besser*
Consultant Neurosurgeon Clinical Proffesor Dispine of Surgery and Lecturer in Surgical Anatomy University of Sydney Australia

***Corresponding author:** Michael Besser, Consultant Neurosurgeon, Clinical Professor Dispine of Surgery and Lecturer in Surgical Anatomy, University of Sydney, Australia

Received: March 06, 2020; **Accepted:** March 14, 2020; **Published:** March 21, 2020

Short Communication

What is Empathy?

The Oxford Dictionary defines empathy as "the power of mentally identifying oneself with, and so fully comprehending, a person of contemplation".

There are several definitions in the literature. Nancy Eisenberg feels it is "An effective response that stems from the apprehension or comprehension of another's emotional state or condition, and that is similar to what the other person is feeling, or would be expected to feel" [1]. I prefer Simon Baron-Cohen: "Empathy is about spontaneously and naturally tuning into the other person's thoughts and feelings, whatever these may be. There are two major elements to empathy. The first is the cognitive component: understanding the other's feelings and the ability to take their perspective and the second element to empathy is the affective component. This is an observer's appropriate emotional response to another person's emotional state" [2].

The word "empathy" is of Greek origin but entered the English language in the early 20th.century when E.B. Titchener attempted to translate the German word "Einfuhlung" from the writings of Theodor Lipps in 1909 [3] it literally means "feeling one's way into another person".

Empathy differs from sympathy. The former can be simply stated as "I feel what you feel" i.e. feel your pain whereas the latter is "I feel supportive of your feelings" i.e. I feel pity for your pain [3]. Empathy is a moral emotion of empathetic concern [4].

Pity is feeling sorry FOR someone but empathy is feeling sorry WITH someone. Empathy is a vicarious, spontaneous sharing of affect. However pity may engender empathy enabling the visualisation of another person's perspective and their vulnerability [3].

Personal distress is an aversion emotional response characterised by apprehension of another's emotion [3]. It is self-orientated and leads to avoidance rather than sympathy, the latter being an altruistic action [5].

Emotional contagion involves automatic mimicry via facial expressions, postures and vocalisations [6]. These automatically shared feelings are understood by one's personal histories and cultural contexts [7].

Empathy involves both feeling and thinking: it needs memory, experience and the capacity to take another person's perspective [3]. Humans, like primates in general, tend to experience empathy most readily with those that seem like us [8]. The human ability to recognize the bodily feelings of another is related to one's imitative capacities. This ability seems to be grounded in the innate capacity to associate the bodily movements and facial expressions one sees in another, with the feelings of producing those corresponding movements or expressions in oneself. Humans seem to make the same immediate connection between the tone of voice, together with other vocal expressions, and inner feeling [9].

Baron-Cohen proposes a bell curve representing an empathy spectrum in which individuals can be lined up along the curve based on how much empathy they display. He also suggests that there is an "empathy circuit" in the brain determining how much empathy each person has. This empathising mechanism works on six levels indicating broad definitions of empathy from individuals capable of murder and torture to those with high levels of emotional altruism. Transient fluctuations in empathy may occur but each band is broadly fixed [2].

Since empathy involves understanding the emotional states of other people, the way it is characterised is derived from the way emotions themselves are characterised: for example if emotions are more centrally characterised by certain beliefs, then grasping those beliefs will be more conducive to empathy. Empathy increases with similarities in culture and living conditions and is more likely to occur between individuals whose interactions are more frequent [10]. The ability to imagine oneself as another person is a sophisticated imaginative process. However, the basic capacity to recognise emotions is probably innate, partly genetically based and occurs without conscious effort [2].

Empathy can be studied in a number of ways. Physiologic responses, such as heart rate, skin conductance and facial reactions via EMG (electromyography) studies can be measured [5]. Researchers then draw inferences about that person's empathic reactions from the electronic readings produced [11]. Self-reporting questionnaires and surveys can give some objective insight into empathy. The recently developed Empathy Quotient (or EQ) by Baron-Cohen and Wheelwright comprises a self-report questionnaire consisting of some 60 items: it has both adult and child versions [12]. In the field of medicine, there is a measurement tool for carers: "The Jefferson Scale of Physician Empathy" [13]. At least one study using this tool with health sciences' students has found that levels of empathy are greater amongst females than males, and older students compared to younger students [1]. Another contribution to the understanding of empathy is evaluation of patients who show behavioural changes as a result of brain lesions, particularly localised injuries and specific neuroanatomical surgical sites [14].

Citation: Besser M. Empathy. Austin J Surg. 2020; 7(2): 1244.

Recently the neurological basis for emotion and empathy has been investigated using functional MRI to determine specific brain regions and pathways involved [3]. The functional anatomy of empathy has been elucidated by studies, which have shown that observing another person's emotional state activates parts of the neuronal network involved in processing that same state in oneself [15]. Singer showed that subjects did not need to observe pain in others to elicit an empathetic response. An "arbitrary clue" signalling the feeling state of another was sufficient to elicit empathy [16]. Witnessing or even imagining another in an emotional state seems to activate an automatic response with representation of that same state in the onlooker, including responses in the nervous system and the body [17].

There is strong evidence that empathy has deep evolutionary, genetic, biochemical, and neurological underpinnings. A number of genes have been identified as playing a significant role in emotion and empathy [2]. However, even the most advanced forms of empathy in humans, are built on more basic core mechanisms such as affective communication, social attachment, and parental care [18]. Core neural circuits that are involved in empathy include the amygdala, hypothalamus, insula and orbitofrontal cortex [2]. In biological terms, empathy is an emotional system which has emerged out of the recent evolutionary expansion of the forebrain. This system mixes lower reflexive affects and higher cognitive processes: it has a neurochemical basis acting via neurophysiologic pathways and can be studied at the cellular level [19].

Rita Charon in "The Parallel Chart" has encouraged empathy for patients by asking medical students to write a personal narrative on each person in their care. The students then read that narrative to their peers in a group setting with a preceptor [20]. Charon feels this benefits the emotional development of the student as well as providing a better milieu for the patient's emotional well being. She suggests that endearing empathy generates a mood of reverence and admiration towards patients, allowing for the better development of therapeutic alliances.

In my view empathy helps elaborate a pathway of treating a patient with dignity. Recent studies have shown that treating patients with respect and dignity can lead to better outcomes independent of other factors [21]. Dignity affords spiritual comfort and recognition of their courage and need for autonomy [22]. However the "art" of medicine is a balance between empathy, sympathy and objectivity to allow proper decision making, so some degree of detachment is required. My position is that "empathetic compassion" is the more appropriate emotion to be encouraged in the medical attendant.

Empathetic emotion may motivate altruistic action on behalf of needy individual's [23] and this "empathy/altruism hypothesis" can apply to narrative empathy [24]. Literary narratives can induce empathy by manipulation of reader's feelings. This calls upon an individual's inbuilt capacity to feel with others and occurs in our reaction to any narrative, such as story-telling, with recognition of culturally valued emotional states [3]. Bourg feels that empathisers are inherently better readers because their role taking abilities allow them to more readily comprehend causal relations in stories [25]. A reader's empathy may be enhanced by chance relevant to particular historical or social circumstances [3].

Certain narrative techniques are better at inducing empathy. First person fiction more readily evokes responsiveness to emotions compared to third person narrative [26].Narrated monologue also has a strong effect on a reader's responses to characters [27]. Indeed Adamson argues that narrated monologue is empathetic narrative [28]. However the most important feature of a narrative associated with a high empathetic response is character identification. Readers who linked themselves to story characters through personal experiences were more likely to report changes in self perception and empathy [29]. Other significant features associated with empathy are genre [30], narrative situation [27], and length of narrative (Keen, 2006, p216). Dixon also emphasises aesthetic qualities of narration that open the way to personal involvement [31].

In conclusion contemporary neuroscience has gone a long way to explain a system for representation of other's feelings that enables us to understand their motives and thoughts. Theoretical speculation on the physiological substrate underlying empathy supports evolutionary psychology that emphasises the adaptive nature of our social relations [32]. Empathy appears to be a key element in our responsiveness to other human beings [3] and can be induced by appropriate literary narratives. Narrative medicine, which enhances empathetic compassion, has the potential to be a powerful therapeutic tool in the doctor-patient relationship.

References

1. Eisenberg N, Fabes RA. Empathy: conceptualisation, measurement, and relation to prosocial behaviour. Motivation and Emotion. 1990; 14: 131-149.
2. Baron-Cohen S. Zero Degrees of Empathy. London. Allen Lane: Penguin Books. 2011.
3. Keen S. Atheory of narrative empathy. Narrative. 2006; 14: 207-236.
4. Nussbaum MC. Upheavals of Thought: The Intelligence of Emotions. Cambridge & NY: Cambridge Univ Press. 2001.
5. Eisenberg N. Physiological Indices of Empathy. In Empathy and its Development. Eisenberg N. Strayer J. (editors) Cambridge & NY: Cambridge Univ Press. 1987.
6. Hatfield E, Cacioppo JT, Rapson RL. Emotional Contagion. Studies in Emotion and Social Interaction. Cambridge & NY: Cambridge Univ Press. 1994.
7. Zahn-Wexler C. Empathy and Prosocial Patterns in Young MZ and DZ Twins: Development, Genetic and Environmental Influences. In Infancy to Early Childhood: Genetic and Environmental Influences on Developmental Change. Emde RM. Hewitt JK. (editors.) New York: Oxford Univ Press. 2001.
8. Kruger DJ. Evolution and altruism: combining psychological mediators with naturally selected tendencies. Evolution & Human Behaviour. 2003; 24: 118-125.
9. Meltzoff AN, Decety J. What imitation tells us about social cognition: a rapprochement between developmental psychology and cognitive neuroscience. The Philosophical Transactions of the Royal Society, London. 2003; 358: 491-500.
10. Hoffman M. Empathy and Moral Development: Implications for Caring and Justice. Cambridge & NY: Cambridge Univ Press. 2000.
11. Levenson RW, Ruef AM. Empathy: a physiological substrate. J Personality & Social Psychology. 1992; 63: 234-246.
12. Baron-Cohen S, Wheelwright S. The empathy quotient: an investigation of adults with Asperger Syndrome or high functioning autism, and normal sex differences. J Autism & Dev Disorders. 2004; 34: 163-175.
13. Chen D, Lew R, Hershman W. A cross-sectional measurement of medical student empathy. J Gen Intern Med. 2007; 22: 1434-1438.

14. Gratton LM, Elsinger PJ. High cognition and social behaviour: changes in cognitive flexibility and empathy after cerebral lesions. Neuropsychology. 1989; 3: 175-185.

15. Jackson PL, Meltzoff AN, Decety J. How do we perceive the pain of others: a window into the neural processes involved in empathy. Neuroimage. 2005; 24: 771-779

16. Singer T, Seymour B, O'Doherty J, Kaube H, Dolan RJ, Frith CD. Empathy for pain involves the affective but not sensory components of pain. Science. 2004; 303: 1157-1162.

17. Preston SD, de Waal FBM. Empathy: its ultimate and proximate bases. Behavioural & Brain Sciences. 2002; 25: 1-20.

18. Decety J. The neuroevolution of empathy. Ann NY Academy Sciences. 2011; 1231: 35-45.

19. Panksepp J. Emotions as Natural Kinds in the Brain. In Handbook of Emotions, 2nd ed. Lewis M. & Haviland-Jones JM. (editors.) New York: Guilford Press. 2000.

20. Charon R. Narrative medicine: a model for empathy, reflection, profession, and trust. JAMA. 2006; 286: 1897-1902.

21. Beach MC, Sugarman J, Johnson RL Arbelaez JJ, Duggan PS, Cooper LA. Do patients treated with dignity report higher satisfaction, adherence, and receipt of preventative care? Ann Family Med. 2005; 3: 331-338.

22. Chochinov HM, Hack T, McClement S. Dignity in the terminally ill: a developing empirical model. Social Science & Medicine. 2002; 54: 433-443.

23. Batson CD. The Altruism Question: Toward a Social-Psychological Answer. Hillsdale, NJ: Erlbaum. 1991.

24. Slote M. Morals from Motives. New York: Oxford Univ Press. 2001.

25. Bourg T. The Role of Emotion, Empathy, and Text Structure in Children's and Adult's Narrative Text Comprehension. In Empirical Approaches to Literature and Aesthetics. Kreuz RJ, MacNealy MS. (editors). 1996.

26. Schneider R. Toward a cognitive theory of literary character: the dynamics of mental-model construction. Style. 2001; 35: 607-642.

27. Palmer A. Fictional Minds. Lincoln, NE: Univ of Nebraska Press. 2004.

28. Adamson S. The Rise and Fall of Empathetic Narrative: A Historical Perspective on Perspective. In New Perspectives on Narrative Perspective. Van Peer W, and Chatman S (editors.). Albany, NY: SUNY Press. 2001; 83-99.

29. Louwerse M. Kuiken D. The effects of personal involvement in narrative discourse. Discourse Processes. 2004; 38: 169-172.

30. Bortolussi M, Dixon P. Psychonarratology: Foundations for the empirical study of Literary Response. Cambridge and NY: Cambridge Univ. Press. 2003.

31. Dixon P. Literary processing and interpretation: towards Empirical foundations. Poetics. 1993; 22: 5-33.

32. Brothers L. A biological perspective on empathy. Am J Psychiatry. 1989; 146: 10-19.