

<b>Outcome Measure</b>	<b>Balanced Emotional Empathy Scale (BEES)</b>
<b>Sensitivity to Change</b>	No
<b>How to obtain</b>	Available from the author
<b>Population</b>	Adult
<b>Domain</b>	Social Cognition
<b>Type of Measure</b>	Self-report
<b>Time to administer</b>	<b>3-5 minutes</b>
<b>Description</b>	<p>The Balanced Emotional Empathy Scale (BEES; Mehrabian, 1996, 1997), is a unidimensional measure of affective or emotional empathy. It is a self-report measure of one's ability to vicariously experience another individual's emotions or to feel what someone else feels. The BEES consists of 30 items. Fifteen of these items are positively worded whereas 15 are negatively worded.</p> <p>The following are example items from the BEES:</p> <ol style="list-style-type: none"> <li>1. Unhappy movie endings haunt me for hours afterward.</li> <li>2. I cannot feel much sorrow for those who are responsible for their own misery.</li> </ol> <p>Participants respond to all items on a scale ranging from -4 (very strong disagreement) to +4 (very strong agreement). Higher scores represent higher levels of emotional empathy</p>
<b>Properties</b>	<p><u>Internal consistency</u>: Alpha internal consistency of the BEES was .87 (Mehrabian, 1997).</p> <p><u>Test-retest reliability</u>: over a 6 week period, <math>r = .77</math> (Mehrabian, 1997).</p> <p><u>Construct validity</u>: BEES has exhibited a very high positive correlation of .77 with the 1972 Emotional Empathic Tendency Scale (EETS) (Mehrabian, 1997) and an Emotional Contagion scale (de Sousa, McDonald, &amp; Rushby, 2012). It also correlates with the Empathic Experience scales subscales: Vicarious experience (<math>r = .64</math>) and Intuitive understanding (.31) (Innamorati, Ebisch, Gallese, &amp; Saggino, 2019), as well as the Jefferson Scale of Physician Empathy (Dehning et al., 2014) and an in vivo experimental measure of empathic accuracy (Ripoll et al., 2013). The BEES also correlates with the emotional empathy subscales of two common measures, i.e. EQ: Emotional reactivity (.8) and the IRI-EC (.74), but less with the cognitive empathy subscales of these two measures (i.e. EQ-CE: .43; IRI-PT: .35) in healthy controls. Very similar correlations were seen in people with TBI (de Sousa et al., 2010).</p> <p><u>Predictive validity</u>: The BEES relates negatively (<math>r = -.50</math>) to interpersonal violence and, thus, may be useful (as an indirect and subtle measure) for identifying persons who may have a potential to behave in highly aggressive or violent ways (Mehrabian, 1997). The Abbreviated BEES (7 items) is positively correlate of emotional success (i.e., general emotional well-being), relationship success (i.e., healthy and happy inter-personal relationships), career and financial success, and overall life success (Mehrabian, 2000). The BEES also predicts performance on the proxy rated DEX in people with stroke (Nijse, Spikman, Visser-Meily, de Kort, &amp; van Heugten, 2019), and correlates positively with forgiveness (Toussaint &amp; Webb, 2005) but negatively with alexithymia, i.e. poor self-awareness of emotions and feelings (Williams &amp; Wood, 2010)</p> <p><u>Discriminant validity</u>: The BEES discriminates between people with traumatic brain injury and healthy controls (Williams &amp; Wood, 2010), (de Sousa et al., 2012), (de Sousa et al., 2010); (de Sousa et al., 2011). It also differentiates people with schizoaffective personality disorder (Ripoll et al., 2013).</p> <p><u>Normative data</u>: The BEES Manual provides information regarding norms, specifically the overall mean in adults is cited as 45 (24), which breaks down for females as 60 (21) and for males 29 (28). The abbreviated 7 item scale has a mean of 10.24 (8.7) or for females 14.2 (7.5) and males 6.2 (8.0). Some research studies have provided additional normative</p>

	data including (Toussaint & Webb, 2005) N = 127, ages 25-45 years (Nijse et al., 2019), N = 50; (Ripoll et al., 2013), N = 19; (Williams & Wood, 2010), N = 64; (Dehning et al., 2013); N = 126.
<b>Advantages</b>	<ul style="list-style-type: none"> <li>• Has reasonable psychometric properties with additional information on construct validity in more recent studies.</li> <li>• Manual widely available</li> </ul>
<b>Disadvantages</b>	<ul style="list-style-type: none"> <li>• Only measures 1 aspect of empathy (emotional)</li> <li>• Is longer than the IRI</li> </ul>
<b>Additional Information</b>	<ul style="list-style-type: none"> <li>• Norms vary significantly with gender.</li> </ul>

#### References

- de Sousa, A., McDonald, S., & Rushby, J. (2012). Changes in emotional empathy, affective responsivity and behaviour following severe traumatic brain injury *Journal of Clinical and Experimental Neuropsychology*, 34(6), 606-623. doi:org/10.1080/13803395.2012.66706
- de Sousa, A., McDonald, S., Rushby, J., Li, S., Dimoska, A., & James, C. (2010). Why don't you feel how I feel? Insight into the absence of empathy after severe Traumatic Brain Injury. *Neuropsychologia*, 48, 3585-3595.
- de Sousa, A., McDonald, S., Rushby, J., Li, S., Dimoska, A., & James, C. (2011). Understanding deficits in empathy after traumatic brain injury: The role of affective responsivity. *Cortex*, 47(5), 526-535. doi:10.1016/j.cortex.2010.02.004
- Dehning, S., Gasperi, S., Krause, D., Meyer, S., Rei, #xdf, . . . Siebeck, M. (2013). Emotional and Cognitive Empathy in First-Year Medical Students. *ISRN Psychiatry*, 2013, 6. doi:10.1155/2013/801530
- Dehning, S., Reis, E., Krause, D., Gasperi, S., Meyer, S., Dargel, S., . . . Siebeck, M. (2014). Empathy in high-tech and high-touch medicine. *Patient Education and Counseling*, 95(2), 259-264.
- Innamorati, M., Ebisch, S. J., Gallese, V., & Saggino, A. (2019). A bidimensional measure of empathy: Empathic Experience Scale. *PLoS ONE Vol 14(4)*, 2019, ArtID e0216164, 14(4).
- Mehrabian, A. (1996). Manual for the balanced emotional empathy scale (BEES). Available from Albert Mehrabian, 1130.
- Mehrabian, A. (1997). Relations among personality scales of aggression, violence, and empathy: Validation evidence bearing on the risk of eruptive violence scale. *Aggressive Behavior*, 23(6), 433-445.
- Mehrabian, A. (2000). Beyond IQ: Broad-based measurement of individual success potential or "emotional intelligence". *Genetic, Social, and General Psychology Monographs*.
- Nijse, B., Spikman, J. M., Visser-Meily, J. M., de Kort, P. L., & van Heugten, C. M. (2019). Social cognition impairments are associated with behavioural changes in the long term after stroke. *PLoS ONE Vol 14(3)*, 2019, ArtID e0213725, 14(3).
- Ripoll, L. H., Zaki, J., Perez-Rodriguez, M. M., Snyder, R., Strike, K. S., Boussi, A., . . . New, A. S. (2013). Empathic accuracy and cognition in schizotypal personality disorder. *Psychiatry Research*, 210(1), 232-241. doi:https://doi.org/10.1016/j.psychres.2013.05.025
- Toussaint, L., & Webb, J. R. (2005). Gender differences in the relationship between empathy and forgiveness. *The Journal of social psychology*, 145(6), 673-685. doi:10.3200/SOCP.145.6.673-686
- Williams, C., & Wood, R. L. (2010). Alexithymia and emotional empathy following traumatic brain injury. *Journal of Clinical and Experimental Neuropsychology*, 32(3), 259-267. doi:10.1080/13803390902976940