Outcome Measure	**The Florida Affect Battery**
Sensitivity to Change	Not known
Population	Adult
Domain	Social Cognition
Type of Measure	Objective test
How to obtain	Manual available from: https://neurology.ufl.edu/files/2011/12/Florida-Affect-Battery-Manual.pdf Stimuli: Contact the author: dawnbowers@phhp.ufl.edu
Time to administer	No information
Description	The Florida Affect Battery (Dawn. Bowers, Blonder, & Heilman, 1991) uses black and white photographs of (four) female actors expressing happy, sad, angry, fear or neutral expressions and audiotaped voices. It contains 10 modality specific subtests: (1) Facial Identity Discrimination: Decide whether pairs of faces are same/different (2) Facial Affect Discrimination: Decide whether two faces have same/different emotional expressions (20 trials) (3) Facial Affect Naming: Verbally label expression of facial image (4) Facial Affect Selection: Choose one face among five that matches the expression named by the examiner; (5) Facial Affect Matching: Select from five expressions which one matches a target face. (6) Non-emotional Prosody Discrimination: Decide whether two spoken sentences are same or different in terms of prosody (question vs statement) (16 trials) (7) Emotional Prosody Discrimination: Decide whether two spoken sentences have the same/different emotional prosody (20 trials) (8) Name the Emotional Prosody/Conflicting Emotional Prosody (verbally label the emotion (angry, sad, happy, fearful, neutral) of neutral sentences (A) and sentences that are semantically congruent/incongruent (B) (20 trials for each). (9) Match Emotional Prosody to an Emotional Face. Decide which of three expressions (same actor) matches emotional tone of voice (10) Match Emotional Face to the Emotional Prosody. Decide which of three sentences matches a single facial image.
Properties	The FAB is essentially designed as a criterion referenced test, i.e. normal adults are expected to be able to perform at a very high level. Thus, the FAB has ceiling effects which limit psychometric studies of the instrument in healthy adults. Internal consistency: For the combined face scales this is estimated as alpha = .82, for the combined prosody scales, alpha = .76 and for all subtests combined, alpha = .85 (Shaw et al., 1999) Test-retest reliability: Despite this, test-retest reliability in both a group of students and middle-aged adults tested over two weeks ranged from .89 to .97 (Bowers et al., 1991). Construct validity: Factor analytic studies (cited in manual but no detail) on 125 normal adults suggest two factors, one corresponding to visual/facial factors and one to a general prosody factor. Independent information about the convergent validity of the FAB is scarce. The facial emotion subtests are reportedly significantly inter-correlated (r= 0.61 to .66) (Rosen et al., 2006) and also correlated with the face identity subtest (Berneiser et al., 2014). The FAB vocal subtest is reportedly associated with an

	independent measure of visual emotion perception using static photographs (FEEST: r = .57) and also the audio-visual test TASIT (r = .64) (Cooper et al., 2014). Concurrent validity: In terms of concurrent validity, the auditory and visual subtests of FAB correlate with the cognitive empathy questions of the Multifaceted Empathy Test (Dziobek et al., 2008; Supady, Voelkel, Witzel, Gubka, & Northoff, 2011) and also predict marital satisfaction post stroke (Lee X. Blonder, Pettigrew, & Kryscio, 2012). Discriminative validity: The FAB was designed to assess disorders of emotion perception in neurological patients and has been proven to be sensitive in this regard (L.X Blonder, Bowers, & Heilman, 1991; Lee X. Blonder et al., 2012; D. Bowers, Coslett, Bauer, Speedie, & Heilman, 1987; Cooper et al., 2014). It also discriminates between healthy adults and those with frontotemporal dementia (Rosen et al., 2006) and people with MS (Berneiser et al., 2014). In the latter case, Poor FAB scores were strongly associated with depression and fatigue. Normative data: The FAB manual presents normative data for 164 adults in age groups 18-30 (N=53), 31-60 (N =42), 61-70 (N =49) and 71-84 (N =20). A few research reports also provide normative data e.g. (Berneiser et al., 2014) N =53, (Martins, Faisca, Vieira, & Goncalves, 2019), N=15
Advantages	One of the few batteries that assesses visual and vocal emotion systematically, separately and together
Disadvantages	May be difficult to access

References

Berneiser, J., Wendt, J., Grothe, M., Kessler, C., Hamm, A. O., & Dressel, A. (2014). Impaired recognition of emotional facial expressions in patients with multiple sclerosis. *Multiple Sclerosis and Related Disorders, 3*(4), 482-488. doi:10.1016/j.msard.2014.02.001

Blonder, L. X., Bowers, D., & Heilman, K. M. (1991). The role of the right hemisphere in emotional communication. *Brain, 114*, 1115-1127.

Blonder, L. X., Pettigrew, L., & Kryscio, R. J. (2012). Emotion recognition and marital satisfaction in stroke. *Journal of Clinical and Experimental Neuropsychology, 34*(6), 634-642.

Bowers, D., Blonder, L. X., & Heilman, K. M. (1991). *Florida Affect Battery*. Gainsville, FL.: Centre for Neuropsychological Studies, University of Florida.

Bowers, D., Coslett, H. B., Bauer, R. M., Speedie, L. J., & Heilman, K. M. (1987). Comprehension of emotional prosody following unilateral hemispheric lesions: Processing defect versus distraction defect. *Neuropsychologia, 25*(2), 317-328.

Cooper, C. L., Phillips, L. H., Johnston, M., Radlak, B., Hamilton, S., & McLeod, M. J. (2014). Links between emotion perception and social participation restriction following stroke. *Brain Injury, 28*(1), 122-126.

Dziobek, I., Rogers, K., Fleck, S., Bahnemann, M., Heekeren, H. R., Wolf, O. T., & Convit, A. (2008). Dissociation of cognitive and emotional empathy in adults with Asperger syndrome using the Multifaceted Empathy Test (MET). *Journal of Autism & Developmental Disorders, 38*(3), 464-473. doi:10.1007/s10803-007-0486-x

Martins, A. T., Faisca, L., Vieira, H., & Goncalves, G. (2019). Emotional Recognition and Empathy both in Deaf and Blind Adults. *J Deaf Stud Deaf Educ, 24*(2), 119-127. doi:10.1093/deafed/eny046

Rosen, H. J., Wilson, M. R., Schauer, G. F., Allison, S., Gorno-Tempini, M.-L., Pace-Savitsky, C., . . . Miller, B. L. (2006). Neuroanatomical correlates of impaired recognition of emotion in dementia. *Neuropsychologia, 44*(3), 365-373.

Shaw, R. J., Dong, M., Lim, K. O., Faustman, W. O., Pouget, E. R., & Alpert, M. (1999). The relationship between affect expression and affect recognition in schizophrenia. *Schizophr Res, 37*(3), 245-250. doi:10.1016/s0920-9964(98)00172-8

Supady, A., Voelkel, A., Witzel, J., Gubka, U., & Northoff, G. (2011). How is informed consent related to emotions and empathy? An exploratory neuroethical investigation. *J Med Ethics, 37*(5), 311-317. doi:10.1136/jme.2010.037937