

n cluster	mental states	intra-confusion rate	inter-confusion rate	t-value	p (non-param)	p (Bonferroni)	functional profile
1	uncertainty, caution, skepticism	0.26 ± 0.15	0.13 ± 0.13	2.50	0.1725	2.3629	Negative valence, low arousal, avoidance; ambiguity monitoring
2	confusion, contempt, egotism, embarrassment, envy, respect, astonishment, humiliation	0.21 ± 0.16	0.13 ± 0.12	3.64	0.0392	0.4783	Mixed valence/arousal; social comparison & self-conscious monitoring (Tracy & Robins, 2004; Feinberg et al., 2012; Fischer & Giner-Sorolla, 2016; Smith & Kim, 2007)
3	agony, anxiety, jealousy, panic, fear, concern, stress	0.29 ± 0.15	0.15 ± 0.13	6.85	0.0002	0.0026*	Negative valence, high arousal, avoidance; threat detection (Öhman & Mineka, 2001; Mobbs et al., 2009; Lang et al, 2000; Blanchard & Blanchard, 2008; LeDoux, 2012)
4	lust, cruelty	0.21 ± 0.17	0.14 ± 0.12	0.76	0.2673	3.7991	Ambivalent valence, high arousal, mixed motives; dominance or impulsivity
5	indifference, carelessness	0.47 ± 0.26	0.09 ± 0.13	2.92	0.1797	2.2447	Neutral/negative valence, low arousal; disengagement
6	relaxation, relief, sleepiness, tiredness	0.45 ± 0.21	0.10 ± 0.12	6.76	0.0002	0.0078*	Mixed valence, low arousal, passive; recovery and energy conservation (Benson & Klipper, 2000)
7	ecstasy, sexual pleasure, pleasure	0.48 ± 0.29	0.09 ± 0.09	4.17	0.0192	0.1794	Positive valence, high arousal, approach; reward processing (Kringelbach, 2005 & 2010)
8	sadness	—	0.15 ± 0.11	—	—	11.712	Negative valence, low arousal, withdrawal; social signaling of loss (Coke et al., 1978; Bonanno et al., 2008)
9	disappointment, disgust, despair, dissatisfaction, nostalgia, horror, guilt, shame	0.18 ± 0.16	0.14 ± 0.12	2.03	0.6577	8.6615	Negative valence, mixed arousal; social and moral evaluation (Rozin et al., 2009; Tangney et al. 2007; Haidt, 2003; Gruenewald et al., 2004; Lewis & Sullivan, 2005)
10	affection, love, courage, amusement, happiness, joy, gratitude, pride, satisfaction, terror	0.23 ± 0.14	0.15 ± 0.13	5.04	0.0030	0.0312*	Positive valence, mixed arousal, approach; social bonding & achievement (Fredrickson, 2004; Gordon et al. 2012; Tracy & Robins, 2007; Dunbar, 2022; Krumhuber et al., 2007)
11	chastity	—	0.11 ± 0.16	—	—	5.4979	Ambivalent valence; potentially moral or identity-related
12	breathlessness, being touched, compassion, trust, generosity, surprise, hope, humbleness	0.23 ± 0.14	0.13 ± 0.12	5.14	0.0012	0.0182*	Positive valence, low-moderate arousal, prosocial approach; affiliation & care (Goetz et al., 2010; Stellar et al., 2017)
13	aggressiveness, agitation, elation, fury, impatience, nervousness, hate, anger	0.31 ± 0.17	0.12 ± 0.12	8.80	0.0002	0.0026*	Mixed valence, high arousal, approach/attack; resources mobilization & action readiness (Carver & Harmon-Jones, 2009; Roseman, 2018; Levenson et al., 1990)

Note. Bonferroni-corrected p-values were computed as $p(\text{non param}) \times k$, where k denotes the number of clusters. Asterisks indicate statistically significant results after correction: $p(\text{Bonferroni}) < .05$.

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