Table 1 *Chronological summary of research investigating behavioral effects of body odors influence on invariant face properties*

Study	N[1]-Sex[2]	Face property	Olfactory stimuli	Experimental task and visual stimuli	Behavioral effects of odorants
Thorne et al. (2002)	32 F[2]	Attractiveness	M axillary odor vs. no odor	Attractiveness ratings of pictures of M faces	↗ attractiveness ratings
Platek et al. (2004)	7 F, 4 M[2]	Identity	axillary odors (self, M or F familiar and unfamiliar odors), androstenone, phenylethanol, or no odor	Face recognition of self, familiar, and unfamiliar faces	Facilitation of self-face recognition by self-odor; No effect of familiar odors
Mutic et al. (2016)	16 F, 15 M	Gender	M and F axillary odors, neutral odor (unused pad)	Gender ratings of composite faces varying in F/M characteristic ratio	Sharpening the perception of sex-ambiguous faces
Oren and Shamay-Tsoory (2017)	42 M	Attractiveness	F axillary odors (in ovulation vs. in luteal phase)	Attractiveness ratings of pictures of F faces	↘ attractiveness ratings for pair-bonded compared to single men.
van Nieuwenburg et al. (2019) Exp 2	32 F	Trusworthiness	Hexanal, hexanal masked by eugenol, eugenol	Trustworthiness ratings of computer-generated M faces varying in trustworthiness	↗ trustworthiness ratings
Habel et al. (2021)	18 M	Attractiveness	F axillary odors (ovulating or pregnant women), and neutral odor (unused pad)	Attractiveness ratings of pictures of F faces	No effect

[1] Outliers removed; [2]M/F, male/female; ↗, increase; ↘, decrease.

Table 2 *Chronological summary of research investigating behavioral effects of influence of androstenes on invariant face properties*

Study (androstene)	N[1]-Sex[2]	Face property	Olfactory stimuli	Experimental task and visual stimuli	Behavioral effects of odorants
Kirk-Smith et al. (1978)	11 F[2], 11 M[2]	Attractiveness	Androstenol	Attractiveness ratings of pictures of F and M faces	↗ attractiveness ratings of F faces by M and F participants
Black and Biron (1982)	35 F, 36 M	Attractiveness	Androstenol, no odor	Attractiveness ratings of real M and F faces	No effect
Filsinger et al. (1985)	132 F, 122 M	Attractiveness	Androstenol, androstenone, no odor	Attractiveness ratings of pictures of F and M faces	Androstenol: ↗ attractiveness ratings of M faces by M participants; Androstenone: ↘ attractiveness ratings of M and F faces by F participants
Kirk-Smith and Booth (1990)	8 F, 8 M	Attractiveness	Androstenone	Attractiveness ratings of pictures of F and M faces	↘ attractiveness ratings
Kovács et al. (2004)	62 M	Gender	Androstadienone, estratetraenol, and neutral odor (water)	Gender categorization of computer-generated faces with varying F/M ratio	Androstadienone : facilitated masculinity perception ; Estratetraenol: no effect
Lundström and Olsson (2005)	37 F	Attractiveness	Androstadienone, clove oil	Attractiveness ratings of pictures of M faces	No effect
Saxton et al. (2008)	54 F	Attractiveness	Androstadienone, clove oil	Attractiveness ratings of real M (speed-dating)	↗ attractiveness ratings of M faces by F participants
Hummer and McClintock (2009) Exp 3	30 F, 20 M	Social cognition	Androstadienone, clove oil	2-back task (recall pictures of M and F faces presented 2 trial ago)	No effect
Frey et al. (2012) Rating task	29 F, 31 M	Attractiveness	Androstadienone, eugenol	Attractiveness ratings of cartoon faces with happy or angry facial expressions	No effect
Frey et al. (2012) Joystick task	29 F, 31 M	Emotion	Androstadienone, eugenol	Approach–avoidance task with cartoon faces with happy or angry facial expressions	Fastens reaction speed for angry faces compared to happy faces

[1] Outliers removed; [2]M/F, male/female; ↗, increase; ↘, decrease.

Table 2 (continued)

Study (androstene)	N[1]-Sex[2]	Face property	Olfactory stimuli	Experimental task and visual stimuli	Behavioral effects of odorants
Parma et al. (2012) Exp 2	103 F[2]	Attractiveness	Androstadienone, clove oil	Attractiveness ratings of pictures of F faces	↘ attractiveness ratings in F faces by F in luteal phase
Ferdenzi et al. (2016)	39 F, 40 M[2]	Gender	Androstadienone, clove oil	Gender ratings of pictures of F and M faces	No effect
Ferdenzi et al. (2016)	39 F, 40 M	Attractiveness	Androstadienone, clove oil	Attractiveness ratings of pictures of F and M faces	↗ attractiveness ratings of M faces by F participants
Hare et al. (2017) Exp 1	46 (M & F)	Gender	Androstadienone, estratetraenol, clove oil	gender categorization of computer-generated androgynous faces	No effect
Hare et al. (2017) Exp 2	51 F, 43 M	Attractiveness	Androstadienone, estratetraenol, clove oil	Attractiveness ratings of pictures of F and M faces	No effect
Hornung et al. (2017)	29 F, 27 M	Social cognition	Androstadienone, musk oil	Emotional Stroop task (M and F faces with happy, angry or fearful expressions)	↗ error rates for angry faces in M participants; no effect on reaction times
Hornung Kogler et al. (2018)	49 F, 27 M	Social cognition	Androstadienone, musk oil	Emotional Stroop task (M and F faces with happy, angry or fearful expressions)	No effect
Hornung Noack et al. (2018)	46 F, 27 M	Social cognition	Androstadienone, or musk oil	Emotional Stroop task (M and F faces with happy, angry or fearful expressions)	↘ of error rates; no effect on reaction times
Banner and Shamay-tsoory (2018)	64 M	Dominance	Androstadienone, or eugenol	Dominance ratings of M faces	↗ dominance ratings in M with high social anxiety
Banner et al. (2019)	52 M	Dominance	Androstadienone, eugenol	Free viewing of pictures of M faces varying in dominance	↗ gaze avoidance for dominance faces in M with high social anxiety

[1] Outliers removed; [2]M/F, male/female; ↗, increase; ↘, decrease.

Table 3 *Chronological summary of research investigating behavioral effects of emotional body odors influence on face perception*

Study	N[1]-Sex[2]	Emotion induction	Olfactory stimuli	Experimental task and visual stimuli	Behavioral effects of odorants
Pause et al. (2004)	8 F[2], 8 M[2]	Academic examination	M axillary anxiety or exercise odors	Emotional priming of neutral faces with neutral happy, fear, sad faces	Anxiety odor ↘ the pleasantness of neutral faces primed by happy faces in F
Mujica-Parodi et al. (2009)	5 F, 9 M	First-time skydiving	M axillary anxiety or exercise odors	2-AFC task with Neutral-to-angry morphed faces	Anxiety odor ↗ accuracy in the assessment of angry and neutral faces
Zhou and Chen (2009)	48 F	Watching clips	M axillary fear, happy, or neutral odor (unused pad)	2-AFC task with fear-to-happy morphed faces	Fear odor: ambiguous fear/happy morphed faces found more fearful; happy odor: no effect
Gelstein et al. (2011)	24 M	Watching clips	F tears, saline or irritant solutions	Sexual attractiveness rating of pictures of F faces	F faces found less sexually attractive
Zernecke et al. (2011)	15 M	High rope course	M axillary anxiety or exercise odors	Emotional rating of neutral-to-happy morphed faces	Anxiety odor ↘ happiness rating of neutral/happy morphed faces
de Groot, Smeets, and Semin (2015)	31 F	Trier Social Stress Task	M axillary fear, or neutral odors	Emotion categorization of M and F faces depicting fear, disgust, happy, and neutral expressions	Fear odor quicken categorization of all facial expressions
Wudarczyk et al. (2016)	10 F, 14 M	Academic examination	M axillary anxiety or exercise odors	Emotional rating of neutral-to-fearful morphed faces	Anxiety odor ↗ fearful rating of neutral/fearful morphed faces
Kamiloğlu et al. (2018)	24 F	Watching clips	M axillary fear, or neutral odors	Emotion categorization of M and F faces depicting fear, disgust, anger, and neutral expressions	Fear odor quicken categorization of fear faces only
Gračanin et al. (2017)	75 M	Watching clips	F tears or saline solution	Sexual attractiveness rating of pictures of F faces	No effect

[1] Outliers removed; [2]M/F, male/female; neutral odor, sweat collected while watching non-emotional clips; ↗, increase; ↘, decrease.

Table 3 (continued)

Study	N[1]-Sex[2]	Emotion induction	Olfactory stimuli	Experimental task and visual stimuli	Behavioral effects of odorants
Rocha et al. (2018)	46 F[2]	Academic examination	M[2] axillary fear, or neutral odors	Emotion categorization of videos of neutral-to-happy or neutral-to-angry M and F faces	Anxiety odor ↗ categorization accuracy of angry and happy faces
de Groot et al. (2018)	96 F	watching clips	M axillary fear, happy, or neutral odors	Breaking Continuous Flash Suppression using M and F faces depicting fear, happy, and neutral facial expressions	Fear odor ↗ the readiness to detect both happy and fear faces
Silvia et al. (2020)	29 F	Watching clips	M axillary fear, disgust, or neutral odors	Breaking Continuous Flash Suppression using M and F faces depicting fear, disgust and neutral emotional expressions	Fear odor sped-up access to awareness to fear faces only; Disgust body odor had no effect
de Groot et al. (2021)	31 F	Watching clips	M axillary fear or neutral odors	2-AFC task with fear-to-disgust morphed faces	Ambiguous fear/disgust morphed faces found more fearful

[1] Outliers removed; [2]M/F, male/female; neutral odor, sweat collected while watching non-emotional clips; ↗, increase; ↘, decrease

Table 4 *Chronological summary of research investigating effects of body odor influence on face perception in infancy*

Study	Age	N[1]-Sex[2]	Method of measure	Olfactory stimuli	Experimental task and visual stimuli	Effects of odorants
Durand et al. (2013)	4-month-olds	26 F[2], 22 M[2]	Eye-tracking	Maternal body odor	Free viewing of F faces and cars shown side-by-side	↗ of looking time toward faces, especially the eyes area
Durand et al. (2020)	4-month-olds	23F, 25M	Eye-tracking	Own- and other-mother body odor	Free viewing of pictures of own- and other-mother shown side-by-side	Both odors: ↘ looking time toward the face of other mother
Leleu et al. (2020)	4-month-olds	6 F, 12 M	FPVS-EEG	Maternal body odor	Free viewing of stream of objects and M and F faces	↗ visual categorization of faces
Jessen (2020)	7-month-olds	38 F, 38 M	EEG	Own- and other-mother body odor	Free viewing of pictures of fear and happy F faces	Maternal odor: ↘ the neural response for fear faces; Other-mother odor: no effect
Rekow et al. (2021)	4-month-olds	9 F, 11 M	FPVS-EEG	Maternal body odor	Free viewing of stream of objects and face-like objects	↗ visual categorization of face-like object as faces

[1] Outliers removed; [2]M/F, male/female; FPVS-EEG, Fast Periodic Visual Stimulation coupled with Electroencephalography; ↗, increase; ↘, decrease.