



On What Can We Agree?: Principles Endorsed by Facial Affect Researchers across Theoretical Perspectives and Subdisciplines of Psychology and Neuroscience

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Abstract

Research linking facial muscle movement to emotion and other affective experience has been central to affective science throughout the field's history. Though the study of facial affect has often been contentious, it is possible that researchers currently working in this field agree on more than is commonly recognized. In the present study, 55 actively publishing facial affect researchers indicated their agreement, agreement with reservations, or disagreement with 23 statements regarding the nature of and best practices for research on facial affect, generated through a process akin to the Delphi method for developing consensus statements. Agreement (with or without reservations) exceeded 95% of participants for 11 statements, and 90% for four more. Participants also provided thoughtful, nuanced, mechanism-oriented comments on the statements, indicating strikingly high agreement on many fundamental theoretical and methodological issues. Implications for future research are discussed.

Keywords Facial expression · Nonverbal behavior · Emotion · Affect · Research methods · Delphi method

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The study of facial expression has been a pillar of affective science from the field's inception to today. Darwin's (1872/1998) early comparisons of human and non-human animals' displays in "emotional" situations; mid-20th century anthropologists' documentation of emotional behaviors that appeared unique to specific cultural contexts (e.g., Klineberg, 1938; LaBarre, 1947); and Ekman's (1972) and Izard's (1977) early cross-cultural studies of how people interpret Western prototype expressions of a handful of emotions, all provided theoretical and methodological foundations for future work. In the 21st century this has flowered into research encompassing a wider range of affective/emotional states and investigating mechanisms producing and shaping facial expressions in emotional contexts (e.g., Adolphs, 2002; Aviezer et al., 2012; Campos et al., 2013; Cordaro et al., 2018; Elfenbein et al., 2007; Gross & Levenson, 1993; Jack et al., 2014; Mortillaro et al., 2011; Noohi et al., 2024; Scherer & Ellgring, 2007; Tracy & Matsumoto, 2008; Wood et al., 2016). For more than 50 years, *facial affect science* – defined here as the empirical study of facial muscle movements or "expressions" in relation to other indicators of emotional/affective experience – has been central to the development and testing of theories about emotion and affect more generally.

The study of facial affect has also been contentious – sometimes fiercely so. Each major theory of emotion posits different suites of mechanisms supporting facial affect production and interpretation (e.g., Barrett, 2017; Ekman, 1992; Scherer, 1992). These differences have led to intense debates over the appropriate methods for studying facial affect, as well as how to interpret the data we already have (e.g., Barrett et al., 2019; Ekman, 1994; Elfenbein & Ambady, 2002; Russell, 1994; Shiota, 2024). A reader of the extant facial affect literature might reasonably infer that researchers in this field agree on very little – not only in terms of theoretical assumptions and conclusions, but even in terms of what good, rigorous research looks like.

As scientists studying facial affect from a variety of perspectives, however, we thought it possible that researchers in this field *do* actually agree about many things. The idea for this study emerged during a working group discussion at the final meeting of the Facial Affect Conferences (FACes) in March 2024. During the meeting this group began drafting statements with which we anticipated most or all active researchers in the field would agree. After a refining process drawing loosely upon the Delphi method for identifying consensus positions among experts in a given field (Barrett & Heale, 2020; for detail see Methods, below), we invited researchers who have published articles on facial expressions three or more times in the past decade to indicate the extent of their agreement with each statement, and to

comment upon the statements themselves. We are pleased to share the results of the study here.

Methods

Participants

Active or emeritus faculty (tenure-line and research, including positions equivalent to the latter) and postdoctoral researchers were recruited to participate if they had three or more publications with the keyword "facial expression" across the following journals, selected to cover the subdisciplines in which facial affect research is commonly conducted: *Emotion*; *Emotion Review*; *Affective Science*; *Cognition & Emotion*; *Motivation & Emotion*; *Journal of Experimental Psychology: General*; *Psychological Science*; *Proceedings of the National Academy of Sciences*; *Psychological Review*; *Psychological Bulletin*; *Nature*; *Nature Reviews*; *Science*; *Journal of Personality and Social Psychology*; *Personality and Social Psychology Bulletin*; *Social Psychological and Personality Science*; *Developmental Psychology*; *Child Development*; *Psychophysiology*; *Social, Cognitive, & Affective Neuroscience*; *Journal of Neuroscience*; *Social Neuroscience*; *Developmental Neuropsychology*; and *Journal of Cognitive Neuroscience*. Faculty who had attended the final FACes conference in person were invited to participate as well, including all authors of this paper except the first and second, who abstained. No compensation was offered for participation. An initial invitation was sent by email to 125 individuals in early July 2025. This was followed by a reminder email three weeks later, and a personalized final "last call" email in August.

The survey was opened and consent provided 60 times. The final sample consisted of 55 individuals who opened the survey and answered at least the first two questions (items 6 and 8 in Table 1), excluding instances where the respondent either answered no questions ($n=3$) or answered the first question (item 8) and then exited the study ($n=2$). Three additional respondents exited the survey before the questions on demographics at the end. Of the 52 participants who did provide demographic information, 23 (44%) were male, 28 (54%) female, none nonbinary, and 1 (2%) explicitly declined to answer. Mean age was 48.00 years ($SD=12.24$). We did not collect data on respondent ethnicity; in terms of geographic region, however, 29 (56%) resided in the U.S. or Canada, 17 (33%) resided in Europe, 2 (4%) resided in Australia or New Zealand, 2 (4%) resided in East Asia, and 2 (4%) resided in India or the Middle East. In terms of career stage, 4 (8%) were postdocs at the time they completed the survey, 8 (15%) were pre-tenure faculty, 31

Table 1 Statements rated and proportion of respondents indicating agreement, agreement with Reservations, or disagreement

	Agree	Agree w. Reservations	Disagree	Com- bined A & AR
Primarily Theory-Focused Statements				
1. The disjunction of facial expressions from internal states may reflect a variety of psychological processes, such as (but not limited to) response to sensory stimuli (e.g., bright light), intentional deception, non-affective social communication, habitual or reflexive movement, and self-regulation (e.g., expressive suppression or masking).	45 84.9%	8 15.1%	0 -	100%
2. Facial expressions are, at best, probabilistic markers of affect/emotion/motivation rather than invariant, deterministic signals.	41 77.4%	11 20.8%	1 1.9%	98.2%
3. Although fear, anger, sadness, disgust, and happiness are the internal states most commonly studied in research on facial expression, the human capacity for affective/emotional experience is not limited to these states.	50 94.3%	2 3.8%	1 1.9%	98.2%
4. Variability in facial expressions of affect/emotion/motivation – across cultures, individuals within cultures, and situational contexts – can represent meaningful differences in how the psychological mechanisms of production, perception, and interpretation unfold; this variability should not be presumed arbitrary (e.g., as measurement error).	49 92.5%	3 5.7%	1 1.9%	98.2%
5. Cultural context (including knowledge, concepts, and expectations/cultural scripts) can meaningfully influence the production, perception, and interpretation of facial expressions (as) associated with affect and emotion. Thus, findings from facial expression research cannot be presumed to generalize from one population/context to another without evidence.	39 72.2%	14 25.9%	1 1.9%	98.1%
6. While multiple theoretical frameworks propose psychological mechanisms linking human facial expressions to subjective affect, emotion, and motivation, there is no consensus on which (if any) best fits the currently available data.	36 65.5%	16 29.1%	3 5.5%	94.6%
7. It is critical for researchers to clearly communicate what theoretical framework(s) are applied in a given study, and why it is/they are suitable given the research question at stake.	35 63.6%	14 25.5%	6 10.9%	89.1%
8. Facial muscle movements are not equivalent to emotions, subjective feelings, or other internal states. Thus, findings from research on facial expression(s) cannot be assumed to generalize to internal states more broadly, or vice versa.	30 54.5%	19 34.5%	6 10.9%	89.0%
9. Though they are likely linked by evolution, different biological and psychological mechanisms may support acts of production versus perception/interpretation of facial expression. Thus, findings regarding mechanisms of expression production may not apply to the mechanisms of perception/interpretation, and vice versa.	37 68.5%	11 20.4%	6 11.1%	88.9%
10. Facial expression research would benefit from the development of new theories.	26 48.1%	17 31.5%	11 20.4%	79.6%
Primarily Method-Focused Statements				
11. Methodological choices in research on facial affect (including data-driven designs) reflect and are constrained by underlying theoretical assumptions and hypotheses. Researchers should be aware of these assumptions, choose them intentionally, and articulate them clearly in study reports.	41 75.9%	13 24.1%	0 -	100%
12. Stimulus validity in facial expression research should be evaluated with respect to appropriateness for a given study's aims.	48 90.6%	5 9.4%	0 -	100%
13. When used as stimuli, facial expressions of a given affective/emotional state cannot be assumed to evoke that same state in the perceiver; a perceiver may respond with the same emotion/affect, a different emotion/affect state, or no emotion/affect at all.	44 81.5%	9 16.7%	1 1.9%	98.2%
14. The mechanisms supporting production, perception, and interpretation of facial expressions are modulated by phenomena occurring at dyadic, group, and/or sociocultural levels of analysis (e.g., communication, synchrony, cultural norms around expression).	47 90.4%	4 7.7%	1 1.9%	98.1%
15. Posed facial expressions may reflect mechanisms/influences beyond those generating naturalistic expression (e.g., ritualized display, exaggeration); they cannot be presumed identical to the expressions that would be produced spontaneously during emotion/affect.	45 84.9%	7 13.2%	1 1.9%	98.1%
16. For any given research question, it is necessary to clearly identify the level of analysis at which the target phenomenon occurs, and design the study accordingly.	43 79.6%	9 16.7%	2 3.7%	96.3%
17. Although many non-human animals use facial and other nonverbal expressions to communicate, researchers should not assume cross-species generalizability without evidence.	40 76.9%	9 17.3%	3 5.8%	94.2%
18. Simplified and/or exaggerated stimuli (e.g., still photos, line drawings, prototypes, peak intensities) can be useful for testing hypotheses about specific psychological mechanisms with high experimental control.	32 60.4%	17 32.1%	4 7.5%	92.5%

Table 1 (continued)

	Agree	Agree w. Reservations	Disagree	Com- bined A & AR
19. The properties of measures used in facial expression research (e.g., statistical distributions, reliability, validity) may vary across populations and contexts and should not be presumed to generalize from one population/context to another without evidence.	38 74.5%	9 17.6%	4 7.8%	92.1%
20. Measuring objective facial movement is challenging for both humans and computer algorithms (i.e., automated coding systems). Regardless of who or what is doing the coding, researchers should not assume that such measurements are trustworthy without study-specific evidence of reliability and validity.	39 73.6%	8 15.1%	6 11.3%	88.7%
21. Because facial expressions often co-occur with vocal tone, body movement, and other nonverbal channels of communication, research studying facial expressions in isolation may misrepresent or fail to reveal mechanisms of emotion/affect communication (production, perception, and interpretation) that integrate these channels.	33 63.5%	12 23.1%	7 13.5%	86.6%
22. Dynamic stimuli (e.g., video clips, social interactions) are more naturalistic than static stimuli, and therefore more suitable for studying real-world communication behavior.	36 67.9%	9 17.0%	8 15.1%	84.9%
23. The biological and psychological mechanisms supporting production, perception, and interpretation of facial expressions exist within individual minds; for such questions, the individual is the correct unit of analysis.	16 30.8%	24 46.2%	12 23.1%	77.0%

(60%) were active tenured faculty, 5 (10%) were emeritus faculty, 2 (4%) were non-tenure-eligible faculty, and 2 (4%) held another position.

With respect to area of research (multiple choices were allowed, so the total is greater than 100%), 23 (44%) described their work as reflecting clinical psychology, 12 (23%) as cognitive psychology, 15 (29%) as comparative psychology, 14 (27%) as developmental psychology, 8 (15%) as neuroscience/biopsychology, 2 (4%) as personality psychology, 1 (2%) as social psychology, and 4 (8%) as other (these typically identified as “affective scientists” or a similar term). Finally, participants were asked to check one or more options reflecting the theoretical orientation regarding emotion/affect they employ in their own research. Notably, 20 participants (40%) selected more than one option. Of the 50 participants who answered this question, 35 (70%) checked “Discrete emotions (anger, fear, etc.) combining both biological and social influences”; 20 (40%) checked “Emotions as constructed, either socially or psychologically”; 18 (36%) checked “Emotions as resulting from a sequence of stimulus appraisals (i.e., component process model”); and 5 (10%) checked “other (please describe).” Two of the latter indicated “functionalist” in the open-ended response, one emphasized core affect (valence and arousal dimensions), and the remaining two indicated another combination of theoretical assumptions.

Measures and Procedures

Participants were asked to indicate their level of agreement with 23 statements regarding the nature of and best practices for research on facial affect. Ten (10) of these were primarily theoretical in nature, 13 primarily methodological.

Participants were invited to rate each statement on a scale in which 1 = “I agree with this statement”; 2 = “I agree, with reservations”; and 3 = “I disagree with this statement.”

Generation of statements included in this study began during a brainstorming session in a working group at the final meeting of the Facial Affect Conferences (FACes) in March 2024. Based on notes from that meeting, a draft set of points was developed by the first author and refined by the third author, after which faculty attendees of the conference were invited to edit and comment on the draft points. A total of 15 scholars representing a variety of theoretical perspectives and specific research interests contributed to this process.¹ Based on this feedback the statements were revised by the first author (some statements containing multiple assertions were split into two separate statements at this stage); reviewed again by the third author; and revised again by the first author to produce the final set of statements included in the study.

Transparency and Openness

We report all information regarding sample size determination, participant recruitment, data exclusions, and measures in the present study. No aspect of this study was preregistered. All relevant analyses are reported. The full text of all comments submitted by participants on the candidate

¹ These 15 individuals were invited to participate in the study after statements were finalized by the 1st author; because participation was anonymous, we have no way of knowing who did so, or which responses they contributed. Ten are included as authors on this report based on contributions to the manuscript as well as their role in statement development.

consensus point statements can be found in the online [Supplemental Materials](#) linked to this article.

Results

Table 1 presents the number and proportion of responding participants who agreed with each statement, agreed with reservations, or disagreed, as well as the total number who agreed with or without reservations (the table is sorted by this last metric, separately for theoretical and methodological statements). Due to occasional non-responses, numbers in each row do not always sum to 55. Eleven statements received agreement with or without reservations from more than 95% of those who answered the question (these are non-shaded rows in Table 1); with this threshold no more than two respondents can disagree. Participants' comments on each statement are synthesized below; all comments can be found in the online [Supplemental Materials](#) accompanying this article, and we encourage readers to review these in full.

Theoretical Statements

Five of the primarily theoretical statements were endorsed (with or without reservations) by more than 95% of respondents. All participants endorsed the statement “*The disjunction of facial expressions from internal states may reflect a variety of psychological processes, such as (but not limited to) response to sensory stimuli (e.g., bright light), intentional deception, non-affective social communication, habitual or reflexive movement, and self-regulation (e.g., expressive suppression or masking)*” (#1). In the 10 comments provided by respondents about this statement, the most common elements were: suggestion of additional psychological processes (beyond those listed in the statement itself) that can influence facial muscle movements; noting that the listed psychological processes are themselves internal states; and noting that the term “expressions” implies communication of an internal state.

All but one participant endorsed the statement “*Facial expressions are, at best, probabilistic markers of affect/emotion/motivation rather than invariant, deterministic signals*” (#2). This participant did not provide an explanation; however, 14 other participants did offer a comment. Common themes among these were: that the same statement could apply to most natural phenomena; that “probabilistic” covers a wide range, from very low to very high probabilities; and that the magnitude of and mechanisms behind probabilistic associations likely vary from one expression, facial muscle movement, and/or affective state to another.

All participants but one endorsed the statement “*Although fear, anger, sadness, disgust, and happiness are the internal states most commonly studied in research on facial expression, the human capacity for affective/emotional experience is not limited to these states*” (#3). This individual's comment stated that “we have many more emotions than these basic five...” which seems to suggest agreement with the core of the statement. Seven additional comments emphasized the participant's agreement, and/or noted that these five emotion concepts are themselves culturally constructed.

All participants but one also endorsed the statement “*Variability in facial expressions of affect/emotion/motivation – across cultures, individuals within cultures, and situational contexts – can represent meaningful differences in how the psychological mechanisms of production, perception, and interpretation unfold; this variability should not be presumed arbitrary (e.g., as measurement error)*” (#4). This individual did not offer a comment explaining their disagreement; there was no consistent theme among the five comments from other respondents.

Finally, all participants but one endorsed the statement “*Cultural context (including knowledge, concepts, and expectations/cultural scripts) can meaningfully influence the production, perception, and interpretation of facial expressions (as) associated with affect and emotion. Thus, findings from facial expression research cannot be presumed to generalize from one population/context to another without evidence*” (#5). This participant agreed with the first sentence, but felt that the second was too strong “given [their] assessment that facial muscle movements are probabilistically linked to affect and emotion.” Additional comments were offered by 14 respondents. Some of these also expressed stronger agreement with the first sentence than the second, and many noted that the appropriateness of generalizing from one population/context to another depended on the specific affective state or psychological process (e.g., instinctive production vs. regulation vs. perception) involved.

All but three participants endorsed the statement “*While multiple theoretical frameworks propose psychological mechanisms linking human facial expressions to subjective affect, emotion, and motivation, there is no consensus on which (if any) best fits the currently available data*” (#6). One of these offered the comment “There are different partly opposing theories, i.e. biological vs. social.” The other two did not leave comments explaining their disagreement, but twelve additional participants did provide comments. Several of these posit that there is “some consensus” or at least moderately widespread agreement on certain issues. Another common comment was that the data are inadequate to adjudicate among theories, e.g., with varying methods

and stimuli, and that most studies are designed to test one theory but not others. Multiple comments noted inadequacies of the theories themselves, including a note that “none of the available frameworks targets all areas (i.e., affect, emotion, motivation) and all processes that might feed into human facial expression production...”.

Forty-nine (49) participants endorsed, and six disagreed with, the statement “*It is critical for researchers to clearly communicate what theoretical framework(s) are applied in a given study, and why it is/they are suitable given the research question at stake*” (#7). Only one of these offered a comment, which was that some research is inherently data-driven/atheoretical, and that the participant would prefer researchers be transparent about lack of underlying theory rather than fabricating a theoretical justification or alignment. Fourteen additional participants offered comments, mostly making the same point – that purely data-driven approaches exist and can serve useful functions in the field.

Similarly, 49 participants endorsed, and six disagreed with, the statement “*Facial muscle movements are not equivalent to emotions, subjective feelings, or other internal states. Thus, findings from research on facial expression(s) cannot be assumed to generalize to internal states more broadly, or vice versa*” (#8). One of these participants agreed that facial expressions “are not the same as emotions BUT they do correlate rather tightly with internal states,” particularly between facial EMG measures and affect valence. Another disagreeing participant offered the somewhat cryptic comment “Automatic nature of spontaneous (not staged!) emotion expressions.” This statement also elicited 21 comments from those who agreed, or agreed with reservations. As in the comment above, these participants often agreed in principle with the first part of the statement but also noted the strength of the correlation and/or mechanisms linking expressions with internal states, at least in some contexts, such that inferences about internal states are sometimes justified.

Forty-eight (48) participants endorsed, and six disagreed with, the statement “*Though they are likely linked by evolution, different biological and psychological mechanisms may support acts of production versus perception/interpretation of facial expression. Thus, findings regarding mechanisms of expression production may not apply to the mechanisms of perception/interpretation, and vice versa*” (#9). One of these individuals commented that they agreed with the second sentence, but not the first. Another commented that expression and perception are tightly linked evolutionarily, and noted that mimicry and facial feedback processes blur the distinction. Although none of the other disagreeing participants commented, 10 additional participants did offer a comment. These often agreed with the first sentence (i.e., at least some different mechanisms are involved) but noted

that there are likely overlapping or bridging mechanisms as well (multiple participants mentioned mirror neurons) that may justify generalizing findings from production to interpretation or vice versa.

Finally, 43 participants endorsed, and 11 disagreed with, the statement “*Facial expression research would benefit from the development of new theories*” (#10). Three of the dissenters who commented argued that more explicit articulation of what existing theories predict, and collection and analysis of data rigorously testing those predictions, are needed rather than or to a greater extent than new theories. Another dissenter commented that new theories would likely be “partial theories focused on the face – useless, likely to add confusion.” A fifth dissenter stated “I find this statement too vague. I’d like to take back my button click.” Among those who agreed (with or without reservations), 17 offered comments. Common themes were that there are already enough theories and they need to be tested more rigorously; that it would be valuable to refine and integrate the theories we already have; and that new theories are always beneficial.

Methodological Statements

Six of the primarily method-oriented statements were endorsed (with or without reservations) by more than 95% of respondents. Two of these were endorsed by all participants. One of these was the statement “*Methodological choices in research on facial affect (including data-driven designs) reflect and are constrained by underlying theoretical assumptions and hypotheses. Researchers should be aware of these assumptions, choose them intentionally, and articulate them clearly in study reports.*” (#11). The eleven comments on this statement typically noted potential exceptions, e.g., that purely data-driven/exploratory designs are inherently atheoretical; that efforts to remain theory-neutral are desirable; and that in some cases the available theoretical frameworks are “too broad or vague to be relevant to each and every single study/research question.”

The other statement endorsed by all participants was that “*Stimulus validity in facial expression research should be evaluated with respect to appropriateness for a given study’s aims*” (#12). Of the 9 comments on this statement, one noted that this is “just good science”; another that “this is true for any research topic”; and a third that the statement is “hard to disagree with.” Other comments elaborated further on the nature of validity.

Three statements were endorsed by all participants but one. One of these was “*When used as stimuli, facial expressions of a given affective/emotional state cannot be assumed to evoke that same state in the perceiver; a perceiver may respond with the same emotion/affect, a different emotion/*

affect state, or no emotion/affect at all" (#13). The single disagreeing participant commented that "If the same assumptions are held, the state will be in the same direction even if there are differences in strength." Ten additional participants offered comments as well. Of these, a few commented on processes by which the displayed expression might be automatically mimicked, thereby evoking an echo of the displayed state via facial feedback; and two expressed hearty agreement ("100"; "seems obviously true?").

The statement "*The mechanisms supporting production, perception, and interpretation of facial expressions are modulated by phenomena occurring at dyadic, group, and/or sociocultural levels of analysis (e.g., communication, synchrony, cultural norms around expression)*" (#14) also received only one disagreement. This participant stated "No. There is research that facial expressions can index sensorimotor simulation or emotional reactions (i.e., internal events), so this statement alone is not valid." Three additional comments on this statement were received, with no consistent theme.

The statement "*Posed facial expressions may reflect mechanisms/influences beyond those generating naturalistic expression (e.g., ritualized display, exaggeration); they cannot be presumed identical to the expressions that would be produced spontaneously during emotion/affect*" (#15), was endorsed by all participants but one as well. The disagreeing participant did not offer a comment, but seven other participants did so. The comment "Identical is a high bar" captures the thrust of most of these, noting that overlap between naturalistic and posed expressions may be quite high.

All but two participants endorsed the statement "*For any given research question, it is necessary to clearly identify the level of analysis at which the target phenomenon occurs, and design the study accordingly*" (#16). One of these expressed uncertainty about what "levels of analysis" were referred to, a concern echoed by four other participants who offered comments.

All but three participants endorsed the statement "*Although many non-human animals use facial and other nonverbal expressions to communicate, researchers should not assume cross-species generalizability without evidence*" (#17). Among the 11 comments (two from dissenters), a few noted that there are good reasons to presume cross-species generalizability in some contexts, based on shared evolutionary history, conservation of adaptations, and/or analogous function. One participant commented that researchers should not presume lack of generalizability across species without evidence either.

Forty-nine (49) participants endorsed, and four disagreed with, the statement "*Simplified and/or exaggerated stimuli (e.g., still photos, line drawings, prototypes, peak*

intensities) can be useful for testing hypotheses about specific psychological mechanisms with high experimental control" (#18). Only one dissenter offered a comment, saying "Oh there are uses for this work for sure, but of course also caveats just like in any other study based on methodology." Fifteen additional participants commented as well, many on the value of also including (studies with) more ecologically valid stimuli in the same program of research.

Forty-seven (47) participants endorsed, and four disagreed with, the statement "*The properties of measures used in facial expression research (e.g., statistical distributions, reliability, validity) may vary across populations and contexts and should not be presumed to generalize from one population/context to another without evidence*" (#19). Two of the four dissenters commented, both saying that the actual metrics of reliability and validity do not change though their values may – a comment echoed by a participant who agreed with reservations. There was no consistent theme among the three additional comments.

Forty-seven (47) participants endorsed, and six disagreed with, the statement "*Measuring objective facial movement is challenging for both humans and computer algorithms (i.e., automated coding systems). Regardless of who or what is doing the coding, researchers should not assume that such measurements are trustworthy without study-specific evidence of reliability and validity*" (#20). One dissenter commented that once a measurement tool is validated it should not always be necessary to do so again, a point echoed by others who agreed with reservations. Another dissenter noted that resources (time, finances) can place constraints on assessment of reliability and validity, which can be particularly burdensome for young researchers. Those who endorsed the statement but also commented typically focused on the importance of validating automated coding systems with human-coding or EEG measures.

Forty-five (45) participants endorsed, and seven disagreed with, the statement "*Because facial expressions often co-occur with vocal tone, body movement, and other nonverbal channels of communication, research studying facial expressions in isolation may misrepresent or fail to reveal mechanisms of emotion/affect communication (production, perception, and interpretation) that integrate these channels*" (#21). The sole comment from a dissenter noted that facial expressions often occur without sound, and that "faces take priority over most stimuli if there's competition." Eleven additional participants offered comments as well; several of these noted that studying facial expressions in isolation can be useful, that in some cases the face is the primary channel of communication, and/or that the extent of interdependence versus independence of nonverbal channels is an empirical question.

Forty-five (45) participants endorsed, and eight disagreed with, the statement “*Dynamic stimuli (e.g., video clips, social interactions) are more naturalistic than static stimuli, and therefore more suitable for studying real-world communication behavior*” (#22). Of the thirteen comments from these and other participants, several noted that dynamic stimuli are not necessarily more ecologically valid than static stimuli, which exist in the real world as well (e.g., photographs, art).

Finally, 40 participants endorsed, and 12 disagreed with, the statement “*The biological and psychological mechanisms supporting production, perception, and interpretation of facial expressions exist within individual minds; for such questions the individual is the correct unit of analysis*” (#23). A total of 27 participants offered comments on this statement, many emphasizing that social and cultural contexts are consequential and important to study. In addition, multiple participants noted that averaging across individual-level data risks blurring important variability between people, and can end up misrepresenting the phenomena studied.

Discussion

Despite affective science’s historical theoretical tensions, which have occasionally erupted into acrimony around facial affect in particular, the present study shows there is much on which modern researchers in the field do agree. All three major theoretical perspectives on affect and emotion (basic/discrete emotion, constructivist, appraisal-focused) and several subdisciplines of behavioral science are well-represented among participants in this study. Despite this diversity of perspectives, the data indicate high agreement about a number of core principles for facial affect research, exceeding 95% for 11 statements and 90% for four more. Disagreements were scattered among respondents (nearly every respondent disagreed with at least one statement) rather than being concentrated in particular subdisciplines, career stages, theoretical perspectives, or a few individual curmudgeons. While we are hesitant to use the word “consensus” – and recognize that consensus does not necessarily indicate objective correctness – these findings suggest a striking level of alignment on many issues, standing in contrast to the field’s reputation for division. Free-response comments on the statements were thoughtful, nuanced, well-informed by the extant empirical evidence (including gaps in that evidence), and mechanism-oriented, often suggesting possible boundary conditions and/or possible exceptions to the rule.

Participants generally agreed that facial expressions are (at best) probabilistic rather than invariant, one-to-one indicators of internal affective states; that divergence of expressions from internal states can reflect a variety of psychological processes; and that the human capacity for emotion and affect goes beyond fear, anger, sadness, disgust, and happiness – the constructs most often studied in facial affect research. They also agreed that variability in facial affect across cultures, individuals, and situations reflects psychologically meaningful mechanisms rather than arbitrary noise; and that findings from facial affect research in one cultural context should not be assumed to generalize to other contexts without evidence. Comments indicated some difference among participants in estimates of how large and pervasive context effects are likely to be, but not on whether such effects exist and should be taken seriously. This theme is also reflected in the relatively low rate of agreement (77%) with the statement that the biological and psychological mechanisms of facial affect exist in individual minds; comments here often emphasized the important roles of social and cultural context as well. The universal or near-universal agreement on the issues above should help lay to rest concerns, still sometimes expressed in the literature, that some substantial proportion of researchers might *disagree* with these principles, or presume the opposite in conducting and/or interpreting their own research.

Participants also agreed widely on several issues related to methods and interpretation of findings. There was complete agreement that theoretical assumptions have implications for methods and therefore should be deliberately chosen and clearly reported, although several comments suggested purely data-driven approaches as a possible exception (we note that measures and data sets typically involve inherent constraints, even if analyses are purely exploratory). Participants also widely agreed that posed expressions cannot be assumed identical to those produced spontaneously, although comments indicated varying ideas around how much similarity it might be reasonable to expect. Comments on additional method-focused statements receiving broad agreement (e.g., assessment of stimulus validity should be evaluated in light of a particular study’s aims; the need to clearly identify the level of analysis at which the phenomenon of interest occurs, and design the study accordingly) often noted that this is simply good science, regardless of the specific topic.

Though still quite high, slightly lower agreement was seen for the statement about non-equivalence of expressions with internal psychological states, as well as one about the non-equivalence of mechanisms underlying expression

production, perception, and interpretation. Reservations about these statements typically agreed with non-equivalence in principle, but also noted that there are mechanisms bringing them into alignment, and that the extent of correspondence is a case-by-case empirical question. A number of statements on principles regarding methods also received agreement rates between 84% and 95%; reservations expressed in comments often suggested plausible exceptions to the rule. Across both theoretical and methodological statements with higher rates of disagreement, a common theme was “you cannot generalize findings from Domain A to Domain B (without evidence),” with domains being methods, stimulus types, aspects of emotion, cultural contexts, etc. Comments accompanying disagreement with these statements often proposed that generalizing inferences across domains *can* sometimes be reasonable (e.g., drawing an inference about someone’s subjective experience of emotion based on their facial display), depending on the particulars of the situation. Interestingly, one of the statements receiving the lowest rate of endorsement was the one about the need for new theories. Comments often noted that we need to clarify what the existing theories actually predict, and do a better job of designing studies that explicitly test competing theories.

The study has some limitations. Although the participants do represent diverse academic backgrounds and career stages, representation of social/personality psychologists was surprisingly low. It’s possible that some of those who identified as “affective scientists” had received primarily social psychology training, but this is impossible to confirm in our anonymous data. Moreover, participants were invited based on publications in psychology and neuroscience journals, potentially excluding those who publish primarily in journals outside these disciplines. Also, the researchers who contributed to developing the candidate statements were invited to participate in the actual study. The first and third authors considered excluding them; however, the statements changed during the development process, with final versions produced by the first author, so presumption that all contributors would agree with each of the final statements was not justified. In addition, several statements included complex phrasing that emerged over the editing process. These complexities captured important nuances of the proposed principles, but sometimes made multiple interpretations plausible. This was typically evident in participants’ comments on the statement, which in some cases suggested endorsement by a participant whose vote was “disagree.” Finally, this is a snapshot of facial affect researchers’ perspectives in 2025. Our findings cannot be presumed to represent the beliefs of researchers in prior decades – though we caution against assuming the opposite as well. It’s

possible that, as a field, we’ve long had more in common than is commonly recognized.

Importantly, several of the statements receiving high agreement in this study explicitly contradict extreme beliefs about the natures of emotion and of facial affect that are sometimes attributed to researchers in this field and/or to the field’s conclusions. We hope the present data help clear up these misconceptions, whether they are held by other affective scientists, journalists, those putting the basic research to practical use, or members of the general public. The current findings bring to mind social psychology research showing that political liberals and conservatives each believe that the “other side’s” attitudes regarding political issues are considerably more extreme than they actually are – a phenomenon dubbed “misperceived polarization” (Lees & Cikara, 2021). Just as misperceived polarization in the political domain exacerbates political conflict, misperceived polarization risks contributing to unnecessary and counterproductive conflict within affective science.

We further hope these data offer some guidance to those just beginning to incorporate questions related to facial affect into their own work, by documenting principles and best practices widely endorsed by facial affect research experts. This seems especially important at a time when the race is on to develop facial expression detection/prediction models for widespread use, sometimes at risk of violating principles and best practices captured in statements from the present study (e.g., statements 1, 3, 11, and 20). Finally, we hope that the present findings – including the wealth of insightful participant comments on the statements – offer fertile ground for future research. The rise of affective computing, access to massive video data sets from social media and other sources, increasing realism of artificially-generated expression stimuli, and other technological advances are creating new opportunities to study facial affect in all its complex glory. On one hand, these technologies can support unprecedented ability to study facial affect as the probabilistic, complex, culturally-variable and context-dependent suite of psychological processes acknowledged by participants in this study. On the other hand, it will be critical to recognize the limitations of these data sets and analysis techniques, which often involve constraints that are consequential for what questions the data can and cannot actually address. Using these new technologies to produce ecologically valid findings will require great caution in formulating precise, theory-driven research questions, and recognizing what assumptions are and are not reasonable given the data and analysis approach in question. We hope the findings of this study can provide some “back to basics” guidance to researchers at the frontier of this new endeavor.

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Additional Information

Conflicts of Interest/Competing Interests The authors declare no competing interests.

Availability of Data and Material All comments on the statements, submitted by participants in this study, can be found in the [Supplemental Materials](#) accompanying this article.

Authors' Contributions MNS contributed to study conceptualization and led methodology (study design), investigation (data acquisition), formal data analysis, supervision, and writing – original draft. CV led data curation and contributed to writing – original draft. REJ contributed to study conceptualization, methodology, and writing – review and editing. All other authors contributed to methodology (developing the candidate consensus point statements) and writing – review and editing. All authors have read and approved the final manuscript.

Ethics Approval and Consent to Participate This study was approved as exempt from IRB oversight by the Arizona State University IRB (study #00022479). All participants provided informed consent prior to participation.

Open Science Statement No aspect of this study was preregistered. The full text of all comments submitted by participants on the candidate consensus point statements can be found in the online supplemental materials for this article.

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