

SUBCONSCIOUS FACE PERCEPTION AND PERMANENT MAKEUP

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Received: 2025-02-12

Accepted: 2025-03-21

DOI: <https://doi.org/10.5281/zenodo.15855104>

Abstract. The article explores how permanent makeup influences the subconscious perception of the face, both by others and by the individual. The aim of the study is to identify how appearance changes caused by permanent makeup affect automatic cognitive-emotional evaluations of the face in social communication and self-perception. The study employed general scientific methods of cognition, including analysis, synthesis, modeling, systematization, comparison and generalization. The findings show that subconscious face perception occurs within fractions of a second before conscious thinking is activated. During these brief moments, the brain automatically integrates a range of visual cues, such as symmetry, proportionality of features, eye placement, the shape of eyebrows and lips, overall skin tone, and micro-expressions of emotion. Based on these parameters, an initial impression is formed, which includes perceived attractiveness, trustworthiness, emotional state, and the potential for safety or threat. This impression is a result of evolutionary adaptation aimed at enabling quick orientation in a social environment. It has been concluded that permanent makeup, by altering key aspects of appearance, can significantly influence these automatic reactions. Faces with permanent makeup are perceived by others as more defined, symmetrical, and emotionally readable, which subconsciously triggers positive social responses such as trust, openness, attractiveness, and emotional safety. At the same time, individuals with permanent makeup subconsciously interpret their reflection as more closely aligned with their internal self-image. This reduces anxiety, boosts self-esteem, and helps build a stable and positive identity. In this way, permanent makeup serves a dual purpose: it not only modifies the social impression projected by the face but also transforms the individual's deep emotional self-perception. The practical significance of this study lies in the potential application of its findings in the fields of appearance psychology, image-making, and applied aesthetics.

Keywords: subconsciousness, face, social perception, makeup, identity.

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Introduction

In today's world, where interpersonal communication increasingly takes place amid information overload and visual competition, the human face remains the most essential communicative marker. It is through facial expressions that key nonverbal cues are conveyed, signaling social orientation – such as sympathy, trust, dominance, or threat. Research from the past few decades clearly shows that first impressions are formed instantly – within the first 500 milliseconds of visual contact – and are based on subconscious analysis of both morphological and emotional facial features. In this context, even minor alterations to facial appearance, such as permanent makeup, can potentially influence not only how others perceive a person visually but also how the individual perceives themselves on a cognitive and affective level.

Despite the active development of cognitive neuroscience related to facial perception, the impact of cosmetic interventions – particularly permanent makeup – on subconscious mechanisms of social perception remains insufficiently explored. Most empirical studies in this field concentrate on traditional makeup as a tool for enhancing attractiveness or examine attitudes toward appearance from the standpoint of self-esteem. Valuable contributions to this topic have been made by the following scholars: J. Briel [1], T.-L. Chen and M.-C. Chen [2], B. de Gelder, J.S. Morris, R.J. Dolan [3], S.-M. Hung, C.-H. Nieh, P.-J. Hsieh [4], A. Jones and R. Kramer [5], A. Jusyte and M. Schönenberg [6], G. Khvan [7], S. Mac Pherson [8], S.C. Verosky, K.A. Zoner, C.W. Marble, M.M. Sammon, C.O. Babarinsa [9], Q. Xu [10]. Their work examines issues such as unconscious processing of emotional facial signals; the role of cosmetic procedures in anxiety regulation; the mechanisms behind attractiveness and trust formation; and the socio-psychological consequences of changes in physical appearance.

At the same time, neuropsychological and emotional-cognitive aspects of the connection between stable visual modifications of facial features and deeper mechanisms of interpersonal perception remain under-researched. The lack of integrated models that combine neuropsychological and psychological perspectives has created a gap in the current scientific paradigm.

The novelty of this study lies in the integration of data from cognitive neuroscience, social psychology, and aesthetic practices to identify the mechanisms through which permanent makeup may influence subconscious emotional recognition, the development of trust, and perceptions of aesthetic appeal. This approach provides a new perspective on permanent makeup—not merely as a decorative correction tool, but as a means of emotional regulation and transformation of one's social image. Such an interdisciplinary approach opens new possibilities for studying the psychological effects of permanent makeup, which is important both for fundamental science and for applied practices in psychology, psychocosmetology, and psychotherapy.

The purpose of this article is to explore how permanent makeup affects subconscious facial perception – both by others and by the individuals themselves. It is necessary to complete the following tasks in order to achieve the goal in the study: characterize the neuropsychological features of subconscious facial perception during visual interaction; analyze the mechanisms behind the formation of first impressions based on morphological and emotional facial parameters; determine the influence of permanent makeup on how individuals are perceived by others; identify the psychological characteristics of facial self-perception among women who use permanent makeup.

Research Results

During the initial visual contact, the human brain integrates several key features of the interlocutor's face in less than half a second: structural symmetry and averageness of facial features, which determine general attractiveness [4]; stable morphological markers that

subconsciously indicate levels of trustworthiness (eye placement, lip contour, eyebrow shape) [9]; immediate emotional signals such as happiness or fear, which automatically trigger pro- or antisocial reactions accordingly [3, 10]; and conditioned associative experience, which allows certain micro-expressions – especially anger – to be rapidly encoded as threatening [6]. This combination of visual parameters is processed by subcortical-cortical mechanisms before any conscious evaluation takes place, setting the trajectory for further cognitive appraisal and social behavior toward a stranger or familiar person.

Neuroimaging and psychophysiological research show that before the occipito-temporal cortical network is activated, facial information is processed via a “fast subcortical route”—superior colliculus → pulvinar → amygdala. This pathway ensures the instant detection of key social-emotional signals and initiates automatic responses long before the stimulus enters conscious awareness. Around 200 milliseconds after a face appears, an increase in the N170 potential amplitude is recorded, indicating early categorization as “face/non-face,” and by 300-400 milliseconds, subconscious differentiation of its emotional value occurs. If facial features contain threat markers (such as anger, asymmetry, lowered brows), the amygdala amplifies visual cortex activity, generating a negative emotional “prime.” Conversely, when friendly or neutral features dominate (like a slight smile or soft lip contour), subcortical structures suppress anxiety responses and activate dopaminergic social reward circuits. Previously formed associative patterns also play a role: even subliminal exposure to angry expressions can shift the perception of a neutral face toward perceived threat, while classically attractive or symmetrical features make processing easier and accelerate conscious recognition. As such, unconscious processes function as a primary filter that structurally and functionally sets the tone for subsequent cognitive interpretation and social interaction.

Findings from a neurophysiological study by S. C. Verosky et al. [9] confirm that during initial visual contact with a face, the human brain automatically, on a subconscious level, assesses the trustworthiness of another person. Stable morphological facial features – such as symmetry, eye placement, lip shape, and eyebrows – play a key role in this process. These traits are perceived as either typical or deviant from the average (referred to as “facial typicality”). EEG data indicate that faces with features subconsciously interpreted as less trustworthy trigger significantly stronger neural responses, even when the observer is not deliberately evaluating these traits [9].

Considering that many of the elements which define this “trustworthy” or “untrustworthy” first impression – eyebrows, lip contour, facial symmetry, and eye definition – can be visually modified, permanent makeup takes on a psychological function.

The study by B. de Gelder et al. [3] demonstrates that facial perception –especially emotional expression – occurs not only at the conscious level but also subconsciously. Fear, in particular, activates subcortical brain structures (amygdala, superior colliculus, pulvinar) even when the face is perceived unconsciously in the “blind” visual field. In light of this, permanent makeup can significantly affect the subconscious decoding of emotions from the face. Procedures such as eyebrow tattooing, lip contouring, or eyeliner enhance the visual signals that the facial processing system uses for emotion recognition, which may lead to unconscious shifts in the interpretation of emotional tone.

This idea is further supported by the research of Q. Xu [10], who showed that facial expressions – even without conscious analysis – can influence others’ social behavior. Happy expressions are processed by the brain on a subconscious level and may trigger prosocial responses, such as readiness for friendly interaction, even without the involvement of active attention. This effect was observed even when emotionally expressive faces were presented in the peripheral visual field and remained outside conscious awareness. In the context of this study, it can be concluded that permanent makeup, by emphasizing key facial elements (eyebrows, lips, eye contours), may modify the subconscious reading of emotional expression

and shape an impression before any conscious recognition occurs. For instance, a slight upward tilt of the outer brow or consistently defined lips can suggest a subtle smile or emotional openness, increasing the likelihood of a positive reaction from the observer. This is particularly relevant given that happy faces are subconsciously associated with safety and friendliness, which, as shown by Q. Xu [10], activate prosocial tendencies in others.

A. Jusyte and M. Schönenberg [6] demonstrated that even among healthy individuals, angry faces can trigger subconscious distortions in emotional perception if previously associated with negative experiences. Specifically, when participants were subliminally exposed to angry facial expressions followed by neutral faces, they were more likely to interpret the neutral faces as threatening, provided there had been prior conditioning linking anger to aversive stimuli.

According to the experiments by S.-M. Hung et al. [4], faces that “break through” interocular suppression and subconsciously capture attention tend to share a common set of morphological characteristics. Although the authors used the categories “attractive/unattractive,” analysis of the sample and control for face inversion allows for the identification of key determinants of facial attractiveness:

- global symmetry – minimal asymmetries between the left and right sides of the face reduce “visual noise” and help integrate features into a coherent attractive configuration;

- averageness – eye, nose, and mouth placement close to population “mean” coordinates creates a familiar, easily processed pattern;

- skin uniformity and absence of localized imperfections – even tone and texture enhance visual coherence and signal health, which is evolutionarily linked to mate quality;

- structural femininity/masculinity (sexual dimorphism) – for women, larger eyes, narrower jaws, and fuller lips; for men, a more prominent jaw and brow ridge, which enhance cues of sexual maturity and hormonal status;

- proportions of the “triangle of beauty” (eyes–nose–mouth) – harmonious distances and ratios align with empirically derived “golden” proportions that reduce cognitive load in facial processing.

It is the integration of these parameters, rather than isolated features, that determines a face’s ability to emerge from suppression and subconsciously focus the observer’s attention – an effect demonstrated in three experiments by Hung and colleagues [4].

Taking into account the neurophysiological data described above, it can be argued that the use of permanent makeup is not simply an act of aesthetic modification but a deliberate intervention in the formation of first impressions, which are rooted in deeply embedded subconscious processes.

When considering how others perceive faces with permanent makeup, the experiment by A. Jones and R. Kramer [5] is particularly insightful. It convincingly shows that in evaluating female attractiveness, natural facial features play the leading role, whereas makeup – even when professionally applied – has a secondary effect. In other words, a person’s visual identity, as defined physiognomically, outweighs how they style themselves.

The study compared how much attractiveness ratings changed due to makeup versus natural differences between individual faces. For self-applied makeup, cosmetics explained only 2% of the variance in attractiveness ratings, while natural differences accounted for much more. Even in cases of professional makeup, the impact increased to 33%, yet facial identity remained the dominant factor. Moreover, the effect of makeup was uneven: less attractive faces benefited more from cosmetic enhancement, while very attractive women (such as supermodels) experienced minimal gains – since their appearance already matched cultural beauty standards, makeup had little room for further improvement [5].

Thus, although makeup is an effective tool for aesthetic enhancement, it does not replace the fundamental facial structure. Natural individuality in appearance remains the key factor in the perception of beauty, and cosmetics only modulate this perception within certain limits.

At the same time, when it comes to natural beauty, permanent makeup primarily highlights certain features. However, if the face has asymmetries or atypical expressions, the value of permanent makeup can increase significantly.

Table 1. How others perceive a woman's face depending on the type of makeup

Evaluation condition	Typical change in perception
Natural face (no makeup)	The impression is shaped exclusively by natural features; attractiveness depends on individual differences.
Self-applied makeup	Slight enhancement of facial expressiveness; appearance is perceived as somewhat neater, but natural identity remains dominant.
Professionally applied makeup (average sample)	Noticeable improvement in perception: skin appears smoother, features more defined; overall attractiveness increases, though natural traits remain the leading factor.
Professional makeup - face with low initial attractiveness	Greatest improvement: makeup corrects flaws, enhances symmetry and contrast, noticeably shifts evaluation toward "average" or "above average."
Professional makeup - face with high initial attractiveness	Minimal effect: features already align with cultural beauty standards; makeup only slightly enhances existing advantages.

Within the study conducted by T.-L. Chen and C. Mei-Chi [2], the role of permanent makeup is viewed as a way of fulfilling women's deeper psychological needs, which directly correlates with A. Maslow's hierarchy of needs. At the level of social needs (the third level), permanent makeup contributes to a sense of acceptance and belonging through a shift in self-perception. In this process, the decisive factor is not external evaluation but the woman's own subconscious reaction to her altered image. Subconscious perception of one's own face is an automated cognitive-affective process in which appearance is assessed before conscious reflection emerges. In this process, the improved image of the self, fixed in the mirror, activates positive affective reactions, reduces inner tension, and builds a foundational sense of self-integrity.

In this context, permanent makeup serves not only as an aesthetic tool but also as a psychoregulatory practice that influences emotional self-perception. As demonstrated in the research findings, women who underwent semi-permanent makeup procedures showed lower levels of social anxiety (based on the SIAS scale) and a more positive attitude toward their body (measured by the MBSRQ-AS scale) [2]. These effects indicate that subconscious recognition of an aesthetically "cohesive" face evokes an affective response of satisfaction, which becomes embedded in emotional memory and enhances overall psychological stability. Thus, for the woman herself, permanent makeup becomes a means of establishing internal harmony with her own body, reinforcing the emotional self and supporting the process of positive self-reflection.

According to the research by J. Briel [1], the psychological perception of permanent makeup is a multifaceted phenomenon that encompasses cognitive, emotional, and social dimensions of self-perception. Permanent makeup is seen not only as a means of aesthetic enhancement but also as a tool for psychological transformation that boosts confidence, fosters a positive self-image, and improves the quality of social interaction. The study

identifies several psychological factors that contribute to the positive perception of permanent makeup, as outlined in Table 2.

Table 2. Key psychological factors contributing to positive self-perception of permanent makeup

Psychological factor	Description
Formation of a positive self-image	Permanent makeup helps align inner self-perception with external appearance.
Increased self-esteem	Aesthetic enhancements strengthen the sense of personal attractiveness and self-worth.
Greater confidence in social situations	Improved appearance reduces anxiety and facilitates better social interaction.
Emphasis on natural facial features	Makeup techniques enhance individual traits without distorting natural appearance.
Psychological compensation	Permanent makeup helps overcome insecurities related to skin imperfections or medical conditions.
Sense of control and self-determination	The decision to change appearance through makeup fosters a sense of autonomy and self-direction.
Positive social reinforcement	Compliments and favorable reactions from others amplify satisfaction with one's appearance.

Note: systematized based on the study by J. Briel [1]

Thus, permanent makeup serves not only a decorative function but also holds distinct psychotherapeutic value. It influences core components of self-perception, helps overcome insecurity, and acts as a means of personal self-expression.

Conclusions

Subconscious facial perception occurs instantly and automatically, even before conscious analysis begins. Within the first fractions of a second, the brain integrates key features: symmetry, proportionality, eye placement, eyebrow and lip shape, skin tone, and emotional microexpressions. Based on this input, impressions are formed regarding attractiveness, trustworthiness, emotional state, and potential social threat or safety. This mechanism reflects an evolutionarily developed strategy for rapid orientation in social environments. For this reason, even slight modifications to facial appearance – such as through permanent makeup – can significantly alter not only how others perceive a person but also how the person perceives themselves, influencing confidence, emotional stability, and the quality of social interaction.

As a result, a face with permanent makeup is perceived by others as more structurally defined, symmetrical, and emotionally distinct, which can subconsciously trigger positive social reactions such as trust, openness, attractiveness, or emotional safety. At the same time, the individual wearing the makeup subconsciously perceives their reflection as more aligned with their internal self-image, which reduces anxiety, enhances self-esteem, and supports the development of a stable positive identity. In this way, permanent makeup performs a dual function – it modifies the social impression conveyed by the face and simultaneously affects deep emotional self-perception.

References

1. Briel J. The psychology of permanent makeup: enhancing confidence and self-esteem. *Alteredaesthetics*, 2019. URL: <https://www.alteredaesthetics.com/blog/the-psychology-of-permanent-makeup-enhancing-confidence-and-self-esteem>
2. Chen T.-L., Mei-Chi C. The effect of semi-permanent makeup and makeup on female body image and social anxiety. *International Journal of Innovation, Management and Technology*, 2022, №13(1). URL: <https://www.ijimt.org/vol13/913-RE0021.pdf>
3. de Gelder B., Morris J.S., Dolan R.J. Unconscious fear influences emotional awareness of faces and voices. *Proc. Natl. Acad. Sci. U.S.A.*, 2005, №102(51), 18682–18687. URL: <https://doi.org/10.1073/pnas.0509179102>
4. Hung S.-M., Nieh C.-H., Hsieh P.-J. Unconscious processing of facial attractiveness: invisible attractive faces orient visual attention. *Scientific Reports*, 2016, №6. URL: <http://dx.doi.org/10.1038/srep37117>
5. Jones A., Kramer R. Facial cosmetics and attractiveness: comparing the effect sizes of professionally-applied cosmetics and identity. *PLOS ONE*, 2016, №11, e0164218. URL: <https://doi.org/10.1371/journal.pone.0164218>
6. Jusyte A., Schönenberg M. Subliminal cues bias perception of facial affect in patients with social phobia: evidence for enhanced unconscious threat processing. *Front. Hum. Neurosci.*, 2014, №8. URL: <https://doi.org/10.3389/fnhum.2014.00580>
7. Khvan G. Permanent makeup, aesthetic correction as tools of psychological rehabilitation: aesthetics and psychology. *Modern engineering and innovative technologies*, 2022, №36(5). URL: <https://moderntechno.de/index.php/meit/article/view/meit36-00-062/8597>
8. Mac Pherson S. Self-esteem and cosmetic enhancement. *Plastic and Aesthetic Nursing*, 2005, №25(1), 5–20. URL: https://journals.lww.com/psnjournalonline/citation/2005/01000/self_esteem_and_cosmetic_enhancement.3.aspx
9. Verosky S.C., Zoner K.A., Marble C.W., Sammon M.M., Babarinsa C.O. Implicit responses to face trustworthiness measured with fast periodic visual stimulation. *Journal of Vision*, 2020, №20(7), 29. URL: <https://doi.org/10.1167/jov.20.7.29>
10. Xu Q. Unconscious processing of happy faces correlates with prosocial tendency but not extraversion. *Front. Psychol.*, 2024, №15. URL: <https://doi.org/10.3389/fpsyg.2024.1458373>