PERCEPTION CONTEXT AS A FACTOR IN THE SUBJECTIVE COMPLEXITY OF INTERPERSONAL ASSESSMENT

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The paper presents a study of the dependence of indicators of subjective complexity of interpersonal assessment in different conditions of interpersonal perception in the absence and presence of context. In the first case, the subjects were shown only photographs of the faces of the sitters, in the second, the faces of the sitters were placed in a situation of interaction between two individuals. It is shown that the presence of a context is associated with an increase in the subjective complexity of assessing the individual psychological characteristics of a person by facial expression. At the same time, the interaction of the factor “context” with such variables as the “race” of the sitters and the level of subjective control of the subjects is shown, the latter, however, being not a decisive determinant of the subjective complexity of perception of other person.

Keywords: interpersonal assessment, person perception, face perception, context of perception, subjective complexity, locus of control, frustration.

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КОНТЕКСТ ВОСПРИЯТИЯ КАК ФАКТОР СУБЪЕКТИВНОЙ СЛОЖНОСТИ МЕЖЛИЧНОСТНОЙ ОЦЕНКИ

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Представлено исследование зависимости показателей субъективной сложности межличностной оценки в разных условиях межличностного восприятия с отсутствием и наличием контекста. В первом случае, испытуемым предъявлялись только фотоизображения лиц натурщиков, во втором – лица натурщиков были помещены в ситуацию межличностного взаимодействия двух персонажей. Показано, что наличие контекста связано с увеличением субъективной сложности оценки индивидуально-психологических особенностей человека по выражению его лица. При этом показано взаимодействие фактора «контекст» с такими переменными, как «расовая принадлежность» натурщиков и уровень субъективного контроля испытуемых, хотя последний не является определяющей детерминантой субъективной сложности восприятия другого человека.

Ключевые слова: межличностная оценка, восприятие лица, контекст восприятия, субъективная сложность, локус контроля, фрустрация.

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Introduction

The ability to “understand people” is an important quality of a person for solving various life problems. Our ability to understand the intentions of another person appears to be evolutionarily shaped and is associated with the maintenance of vital security (see for example: [19]). The perception of person’s appearance and the assessment of personal qualities of people based on this perception play an important role in building a variety of interpersonal relationships, e.g. for meeting partners and subsequently creating a family. Observing other person’s non-verbal behavior makes it possible to predict his/her possible actions, which is important for solving a wide range of tasks, including professional ones.

In modern Russian and foreign literature, many studies are devoted to interpersonal perception and, in particular, the problem of perception of human face (see for example: [15, 16]). Also were studied the features of the perception of the emotional state by the expression of his face [5], the features of assessing the personality of strangers by their appearance, including the features of the formation of the first impression [3]. Separately, the issue of what provides adequate interpersonal cognition is considered, in particular, the ability of the perceiving person to correctly assess the emotional state of another one, operationalized as the concept of “emotional intelligence” [16, 18], the ability to predict the actions of other people and understand the reasons for their behavior (social intelligence), the ability to adequately “read” the personality of a communication partner, described in terms of communicative competence [12, 13].

However, it is also important that the interaction of communicants does not take place “in a vacuum”. The reduction of the situation of interpersonal perception to the assessment of a sitter/model only from a photo or video image outside the attributes of the social context of interaction is obviously fragmentary and does not make possible a holistic description of the phenomenology of interpersonal perception, which leads to the emergence of contradictory data that are actively discussed in the literature.

In our opinion, it is very important to include, even in laboratory studies of interpersonal perception, attributes that describe a specific context of interaction. In this work, we are just
presenting an attempt to consider the patterns of interpersonal perception in one of the contexts of interpersonal interaction, namely, in a frustrating context.

The concept of “frustration” was coined by Saul Rosenzweig. According to the author, frustration occurs when the body encounters more or less insurmountable obstacles on the way to satisfying any vital need [7].

Frustration always indicates feelings of disappointment over the traumatic situation of failure and ruined plans. The necessary attributes of a frustrating situation, according to most definitions, are the presence of a strong motivation to achieve a goal and an obstacle that prevents this achievement [9]. The barriers blocking the path to achieving the goal can be very different, i.e. physical, biological, psychological, social.

Earlier, we have already presented data on how the frustration context changes the assessments of the psychological traits of the sitters [2].

In particular, statistically significant differences were found in the assessments of the sitters on the following scales of the Personal Differential method: Charming — Unattractive, Kind — Selfish, Hostile — Friendly, Callous — Responsive, Dependent — Independent, Unsociable — Sociable, and Fair — Unfair.

It is important to note that the assessments of sitters without context and in the context of a frustrating situation change the polarity. In other words, the frustrating situation radically changes the perception of the sitters, they are perceived as more selfish, hostile, callous, dependent, unsociable and unfair, which is most clearly reflected in the assessment of the attractiveness of the sitters.

Interestingly, most of these scales (5 out of 7) belong to the “Assessment” factor of the “Personal Differential” method, which, in mutual assessments, is interpreted as evidence of the level of attractiveness and sympathy that one person has in the perception of another one [10].

The study mentioned earlier show that statistically significant differences exist for assessments of sitters of different racial types obtained in the absence of an interpersonal context; for example, Caucasian sitters are assessed as more open, independent, active, energetic and sociable, while Mongoloids are perceived to be more relaxed, calm and imperturbable [2].

But, perhaps, the most important result of the work was the fact that the assessments obtained in the situation of perception of the faces in the frustrating context did not show statistically significant difference according to any of the scales for Caucasoid and Mongoloid faces. In other words, the frustrating context neutralized the “other race effect”, giving way to an affective state that probably arose after the involvement of observers in a frustrating situation.

In this paper, we specifically consider the question of whether the subjective difficulty of making judgments about another person would change in the presence of context and without any context.

It should be noted that there is some inconsistency in the existing data on this issue (see, for example: [20, 21]. Our earlier study [8] shows that there is no statistically significant dependence of the complexity of assessing the individual psychological characteristics of sitters on the situation of their perception (the situation of direct perception of the sitters and the situation of perception of their photo and video images). Similar features, but for perceptual tasks of a different kind, were found in the study of E.S. Samoylenko and colleagues [17]. In this study subjects of the Tuvan ethnic group did not show the influence of the type of context on the subjective assessment of the similarity of the objects perceived, while the Russian sample (Muscovites) demonstrated a universal tendency for two categories of objects, i.e. a pair of objects in the context of
similar to them was perceived as significantly less similar than in the context of objects that differ from them in different parameters (ibid., p. 52). It can be assumed that the ethnocultural and racial characteristics of both the subjects and the assessed model faces can play an important mediating role in the performance of perceptual tasks. In this study we tried to take this point into account while analyzing the complexity of the interpersonal assessment of sitters, representatives of the Caucasoid and Mongoloid racial groups.

**Method**

**Subjects**

The study involved 85 people permanently living in Moscow. All subjects had higher education. The distribution of subjects by sex: 83% women and 17% men. Age: $M = 39.21$, $SD = 9.85$.

**Stimulus material**

In the study we used color photographs of Caucasoid and Mongoloid faces from the database of stimulus faces prepared for and used in our previous studies [4]. The sitters were two women and two men.

To create a context for evaluating a person by his/her appearance, we used test pictures (plots) from the stimulus material of S. Rosenzweig’s Test of Frustration Reactions — No. 9, 11 and 2, 21, — demonstrating the groups of situations of “obstacles” and “accusations”, respectively (Fig. 1). The criteria for selecting images were the gender of the participants in the depicted situation (two men and two women), as well as an expert assessment of the occurrence of the depicted situations in everyday life.

**Research procedure**

The research included two stages that followed one another.

At the first stage, the subjects were asked to pass the diagnostic test J. Rotter’s USC [10] to determine the level of subjective control. Then the respondents were asked to evaluate the

![Fig. 1. An example of stimulus material used in the study](image)
personal characteristics of the people depicted in the photo, shown on a computer screen against a light background without any context, using the scales of the “Personal Differential” method. The exposure time of photo images was not limited.

At the second stage, the subjects also had to evaluate the personal characteristics of the same sitters, but presented in the context of the test pictures of S. Rosenzweig’s method using the scales of the “Personal differential” method. The exposure time was not limited. The size of the photographs of faces was not changed.

**Data analysis**

For each subject separately, as well as for each situation of face perception, the frequency of occurrence of the “0” score was calculated, which is an indirect indicator of the subjective complexity of the interpersonal assessment (see: [1, 6, 8]).

Statistical analysis of the data was carried out using the SPSS 21.0 statistical software package and the Stats module of the SciPy package for Python 3.8.

Since the resulting dataset represents frequency distributions, the analysis was carried out using the $\chi^2$ criterion and using the Correspondence analysis procedure.

The analysis of data on the relationship between the personality traits of the respondents (locus of control) and the complexity of assessing a person by his facial expression was carried out using the Spearman rank correlation criterion, since the distribution of the obtained data significantly differs from the normal distribution (Kolmogorov-Smirnov test).

**Results and discussion**

For the entire set of data, that is, both for the condition with the presence of context, and for the condition of its absence, it was found that the greatest difficulties for the respondents are caused by the assessment of a person’s personality by the image of his/her face on the following scales: Reserved — Open, Sluggish — Vigorous and Unsociable — Sociable. On these scales, the frequency of occurrence of scores “0” is higher than one standard deviation. It is interesting to note that all these scales belong to the “Assessment” factor of the “Personal Differential” method, which is consistent with the results presented by us earlier in a study of the subjective complexity of the perception of facial expressions [6], where the scales related to the “Assessment” factor also caused great difficulty.

At the same time, the scales of all three factors of the “Personal Differential” method turned out to be “sensitive” to the appearance of the context of perception at a statistically significant level, namely the scales: Charming — Unattractive, Weak — Strong, Reserved — Open, Kind — Selfish, Dependent — Independent, Active — Passive, Callous — Responsive, Determined — Indecisive, Sluggish — Vigorous, Fair — Unfair, Relaxed — Tense, Fussy — Calm, Hostile — Friendly, Confident — Insecure, Unsociable — Sociable, Honest — Insincere, Adjective — Self-reliant (Fig. 2).

For these scales, the presence of the context was a condition that increased the subjective complexity of assessing the individual psychological characteristics of a person by the expression of his/her face.

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1 According to the instructions, the subject resorted to the value “0” in the scales of the “Personal Differential” in the case when the assessment of the expressiveness of an individual psychological feature was difficult, or when he believed that both poles of this feature were expressed to the same extent. This allows us to consider the frequency of choosing “0” as an indirect sign of the complexity of assessing the individual psychological characteristics of a person.
We also tried to estimate whether the assessment of the psychological qualities of persons of different races in the absence of context causes subjective complexity, for which we also built the frequency distribution separately for the Caucasoid and Mongoloid faces (Fig. 3) and assessed the statistical significance of the differences using the $\chi^2$ test.

The results obtained indicate the absence of statistically significant differences in the indices of subjective complexity of assessing sitters of different racial groups for most of the scales. The exceptions are the differences in the scales “Weak — Strong” and “Hostile — Friendly”, according to which Mongoloid sitters are perceived as stronger and more friendly. At the same time, the analysis of the frequency of occurrence of the score “0” in cases of perception of persons of different races in the context and without it for the indicated scales do not reveal statistical differences (Fig. 4). Thus, the presence or absence of context do not contribute to the subjective complexity of perception of persons of different races.

To examine whether the perceptual context and racial type of face might be the interdependent determinants of interpersonal assessment, we performed another type of analysis using a statistical procedure based on contingency tables, i.e. the Correspondence analysis. This procedure makes it possible to produce a graphical representation of the rows and columns of the table as points in a low-dimensional space (see: [3, 11]) and to represent non-quantitative objects and categories as points on a plane, which allows one to see possible groupings of data and to hypothesize about relationships.

The results of the analysis of correspondences according to the data on the frequency of occurrence of zero-scores on the scales of the “Personal Differential” method are presented in Fig. 5.
Fig. 3. The frequency of occurrence of the value “0” in the perception of the faces of Caucasoid and Mongoloid sitters in the absence of context (“*” — scales for which, according to the $\chi^2$ criterion, differences were found at the level of $p < 0.05$)

Fig. 4. The frequency of occurrence of the value “0” in the perception of the faces of Caucasoid and Mongoloid sitters in the presence of context (no statistically significant differences were found)
As one may see, the context of perception and the racial type of face can be considered as independent determinants of the subjective complexity of the assessment, since the locations of the points, indicating the presence or absence of context, and points, indicating the type of face, are almost completely orthogonal. Based on the fact that the first dimension, the context, determines more than 70% of the variance, we may conclude that the presence or absence of context is a more significant determinant of the subjective complexity of interpersonal perception in comparison with the racial type of person, which further confirms our assumption about the significance of the context for perception of a human by a human.

Additional analysis of the data was associated with the search for our respondents’ psychological characteristics that determine the differences in subjective complexity when assessing the individual psychological qualities of a person by the image of his/her face. The results of the correlation analysis for the entire set of data showed the presence of a weak negative, but statistically significant, connection between the internality of the personality and the subjective complexity of the interpersonal assessment (Spearman’s rho = -0.180 at p = 0.001). Thus, the more a person takes responsibility for the events in his life, the less difficulty he/she experiences in assessing

![Figure 5](image-url)
the individual psychological characteristics of other people. At the same time, in the absence of context, the detected relationship increases (Spearman’s rho = -0.226 at p = 0.003), and in the presence of context, it ceases to be statistically significant (Spearman’s rho = -0.134 at p = 0.086).

Therefore, we may conclude that the presence of context partly contributes to the leveling of the role of personality traits in the manifestation of the subjective complexity of interpersonal perception in our subjects.

However, the results obtained may also arise from to the specific material that we have used to create the context of perception and, possibly, it may be its frustration orientation that determined the role of the context in the difficulty of interpersonal assessments. In other words, the emotional background created by the type of context we have chosen is able to neutralize the manifestations of the “other race effect” (the contribution of the sitter’s face type) not only in terms of the formation of the first impression [2], but also in the perception of the situation of interpersonal perception itself as simple or complex. Note that the results obtained should be clarified through the implementation of additional studies, including the use of other types of interpersonal perception contexts.

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