

# THE RELATIONSHIP BETWEEN VALUES AND PROSOCIAL BEHAVIOR IN DIFFERENT CONTEXTS BEFORE AND DURING THE COVID-19 PANDEMIC

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## Взаимосвязь ценностей и просоциального поведения в разных контекстах до и во время пандемии COVID-19

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### Abstract

The COVID-19 pandemic has unprecedentedly influenced social interactions, which can be implemented both in real life (offline) and on the Internet. Prosocial behavior as a type of social interactions has a positive impact on individuals and society, especially during crises. Prosocial behavior is determined by various factors, including individual values and contextual factors as the most influential ones. The form of prosocial behavior and its determinants may differ in different periods of the society functioning. Therefore, studying prosocial behavior before and during the pandemic, and identifying factors of its implementation in various contexts is a relevant task. This study explores the relationship between individual values and prosocial behavior, in an offline and an online context, before and during the

### Резюме

Пандемия COVID-19 беспрецедентно повлияла на социальные взаимодействия, которые могут быть реализованы как в реальной жизни (офлайн), так и в Интернете. Просоциальное поведение, как вид социальных взаимодействий, оказывает положительное влияние на личность и общество, особенно в период кризисов. Просоциальное поведение определяется различными факторами, среди которых наиболее важными являются индивидуальные ценности и контекстуальные факторы. Форма просоциального поведения и его детерминанты могут различаться в разные периоды функционирования общества. Поэтому изучение просоциального поведения до и во время пандемии, выявление факторов его реализации в разных контекстах является актуальной задачей. В данной работе исследуется взаимосвязь между индивидуальными ценностями и просоциальным поведением в офлайн- и онлайн-

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COVID-19 pandemic in Russia. A cross-sectional study with two sub-samples — the “pre-pandemic” group (N=304) and the “pandemic” group (N=187) — was conducted online, using the short version of Human Values Scale by S. Schwartz (ESS-21) and scales of prosocial behavior in online and offline contexts. Results show that during a pandemic people are less likely to engage in prosocial behavior offline and rely less on Self-Transcendence values. At the same time, in “the pre-pandemic” group, Self-Transcendence values contribute to prosocial behavior in both contexts, while Self-Enhancement values contribute to prosocial behavior in the online context. Next, in the “pandemic” group, Self-Transcendence values and Openness-to-Change values promote prosocial behavior in both contexts, while Conservation values discourage it. The results are discussed regarding the impact a pandemic has on people’s lives.

*Keywords:* prosocial behavior, individual values, online context, offline context, COVID-19 pandemic, cyberpsychology.

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контексте до и во время пандемии COVID-19 в России. Кросс-секционное исследование с двумя выборками, собранными в разное время — группа «до пандемии» (N = 304) и группа «во время пандемии» (N = 187), было проведено онлайн с помощью сокращенной шкалы ценностных ориентаций Ш. Шварца (ESS-21) и шкал просоциального поведения в онлайн- и офлайн-контекстах. Было обнаружено, что во время пандемии люди менее склонны к просоциальному поведению в реальной жизни и меньше опираются на ценности Самопреодоления. При этом в группе «до пандемии» ценности Самопреодоления способствуют просоциальному поведению в обоих контекстах, а ценности Самоутверждения — в онлайн-контексте. В группе «во время пандемии» ценности Самопреодоления и ценности Открытости способствуют, а ценности Сохранения препятствуют просоциальному поведению в обоих контекстах. Полученные результаты обсуждаются в свете влияния пандемии на жизнь людей.

*Ключевые слова:* просоциальное поведение, индивидуальные ценности, онлайн-контекст, офлайн-контекст, пандемия COVID-19, киберпсихология.

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Prosocial behavior can be understood as a voluntary engagement in different activities which aim to benefit other people (Eisenberg et al., 2015). Prosocial behavior contributes to the well-being of both help recipients (Siegel et al., 2010) and the people who perform prosocial acts (Caprara & Steca, 2007). The importance of prosocial behavior becomes even more pronounced in times of crisis when people need to cooperate and help each other in order to cope with a difficult situation (Hellmann et al., 2021). The recent COVID-19 pandemic can be considered as one of the most severe crises since World War II (Shoss et al., 2021).

Studies show that the COVID-19 pandemic has a different impact on prosocial behavior, ranging from negative effects among economically vulnerable groups of

people (Terrier et al., 2021) and to strictly positive effects increasing prosociality (Hellmann et al., 2021).

So, that prompts the question of what people especially value. Generally, values are “abstract desirable goals which serve as guidelines in people’s life and help to navigate through the social world” (Schwartz, 1992). The prominent theory of basic human values developed by S. Schwartz (1992) suggests that there are ten basic universal values (Self-Direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence, and Universalism) which can be combined in four higher order values: Openness-to-Change, Self-Enhancement, Conservation, and Self-Transcendence. Together, these values, of different importance to a particular person, constitute a complex system of compatibilities and conflicts. This integrative system of values guides people’s behavior in various domains (Bardi & Schwartz, 2003). As for the relationship between values and prosocial behavior, studies mainly report that Self-Transcendence values stimulate prosocial behavior, while Self-Enhancement values inhibit it (Gritsenko & Kovaleva, 2014; Caprara & Steca, 2007; Daniel et al., 2015). However, the relationship between values and prosocial behavior can be determined by the situation, context and social norms prevailing in society (Bardi & Schwartz, 2003). Individual values can change under the influence of external circumstances and major life changes (Schwartz & Bardi, 1997). Conservation values become more pronounced, while the importance of Self-Enhancement and Openness to Change values decreased during COVID-19 (Bonetto et al., 2021).

As a result of the digitalization of modern society, prosocial behavior is also implemented on the Internet. Some studies find that prosocial behavior is more common online than in the real world (Jiang et al., 2017). At the same time, this relationship has not been sufficiently studied.

The aim of this work is to study prosocial behavior in online and offline contexts before and during the pandemic, as well as to consider the relationship between values and prosocial behavior in two contexts, before and during the pandemic. This paper raises research questions about (1) how prosocial behavior in an online context and in real life manifests itself during crises, using the example of the pandemic; (2) how the value-motivational basis underlying prosocial behavior differs in different contexts of its implementation, before and during the pandemic period; and (3) whether there are any differences in the relationship of values and prosocial behavior with online and offline contexts before and during the pandemic.

## **Method**

### *Design of the study*

This quantitative study has a cross-sectional correlational design and it was implemented in the form of a socio-psychological survey. Two independent subsamples were built: first, in the period before the COVID-19 pandemic (summer 2019), and second, during the COVID-19 pandemic in Russia (spring 2021), using the convenience sampling approach.

### *Sample*

The sub-sample collected in the period before the beginning of the COVID-19 pandemic in Russia consists of 304 respondents (mean age  $M = 37.4$  years,  $\sigma = 10.9$ ) from 98 settlements in different regions of the Russian Federation. The sub-sample is mainly represented by Russians (85.5%), women (63.8%), non-religious people (65.4%), people with higher education or in the process of getting a higher education (69.7%), and employed people (76.3%). Further in the article this group is called the “pre-pandemic” group.

The sub-sample collected during the COVID-19 pandemic consists of 187 respondents (mean age  $M = 36.28$  years,  $\sigma = 14.55$ ) from 81 settlements in different regions of the Russian Federation. This “pandemic” sub-sample corresponds to the “pre-pandemic” sub-sample regarding socio-demographic characteristics. The majority of the respondents are Russians (83.4%), women (72.2%), non-religious (52.9%), people who have higher education or in the process of getting a higher education (73.3%), and employed (63.1%).

### *Procedure*

The survey questionnaire was posted on the anketolog.ru platform. Respondents were invited to participate by letters to their personal email address they provided while registering on the platform. After reading the informed consent form, the respondents, who had agreed to participate in the survey, received a set of questions.

### *Measurements*

Individual values were operationalized according to S. Schwartz’s approach and were measured using the short version of Human Values Scale included in the European Social Survey (ESS-21). The scale consists of 21 questions assessing the importance of the ten basic human values: Self-Direction, Stimulation, Hedonism, Achievement, Power, Security, Conformity, Tradition, Benevolence, and Universalism. In accordance with the S. Schwartz model (Schwartz, 1992), ten basic values were combined into four higher order values: ( $\alpha$  for “pre-pandemic”/“pandemic”): Openness-to-change ( $\alpha = 0.72/0.62$ ); Conservation ( $\alpha = 0.63/0.79$ ); Self-Enhancement ( $\alpha = 0.79/0.79$ ); and Self-Transcendence ( $\alpha = 0.71/0.69$ ).

Prosocial behavior in online and offline contexts was measured with the help of the instruments created and validated on a Russian sample from previous studies (Efremova & Bultseva, 2020). The scale of prosocial behavior in an online context includes 13 items. The respondents are asked to indicate how often they have been involved in different prosocial activities on the Internet using a 5-point scale, from “never” to “very often” ( $\alpha = 0.88/0.90$ ).

The scale of prosocial behavior in an offline context includes 17 items. The respondents are asked to indicate how often they have been involved in different prosocial activities in real life using a 5-point scale, from “never” to “very often” ( $\alpha = 0.88/0.93$ ).

### *Data processing*

Data processing began with data cleaning and the analysis of missing values. After the exclusion of poorly completed questionnaires, the internal consistency of the instruments was stated based on a reliability analysis (Cronbach's alpha test). Further, an analysis of descriptive statistics was performed, as well as within-group and between-group comparisons, with the help of t-test for independent and paired samples. Finally, a regression analysis was applied to test relationships where the prosocial behavior in both contexts represented dependent variables of the study, while individual values were independent variables. Statistical analysis was performed in the SPSS 22.0 program.

## **Results**

### *Descriptive Statistics and Comparisons*

At the first stage of statistical analysis, descriptive statistics were calculated (Table 1), and intragroup and intergroup comparisons were performed.

Within-group comparisons demonstrated similar patterns in priorities of people in each of the groups regarding types of prosocial behavior and values. People were generally more likely to engage in prosocial behavior offline than online, and this preference was consistent across both the "pre-pandemic" group ( $t = 16.00, p < .01$ ) and the "pandemic" group ( $t = 9.73, p < .01$ ). As for individual values, only a higher priority of Self-Transcendence values (the motivation to promote concern for the welfare of others), in comparison with the rest, was found. Among respondents from the "pre-pandemic" group, Self-Transcendence values were more pronounced than Openness-to-change values ( $t = 8.45, p < .01$ ), Conservation values ( $t = 10.13, p < .01$ ) and Self-Enhancement values ( $t = 8.52, p < .01$ ). Similarly, among respondents from the "pandemic" group, the Self-Transcendence values are more pronounced than Openness to change values ( $t = 5.27, p < .01$ ), Conservation values ( $t = 5.66, p < .01$ ) and Self-Enhancement values ( $t = 5.01, p < .01$ ). No other differences in the priority of individual values were found.

However, between-group comparisons (comparisons of respondents from the "pre-pandemic" and the "pandemic" groups) showed significant differences in the

*Table 1*

**Descriptive Statistics**

| Group                      | Pre-pandemic N = 304 |      | Pandemic N = 187 |      |
|----------------------------|----------------------|------|------------------|------|
|                            | M                    | SD   | M                | SD   |
| Prosocial behavior offline | 2.91                 | 0.56 | 2.69             | 0.89 |
| Prosocial behavior online  | 2.31                 | 0.73 | 2.20             | 0.87 |
| Openness to Change values  | 3.91                 | 0.86 | 3.85             | 1.08 |
| Conservation values        | 3.91                 | 0.81 | 3.86             | 0.99 |
| Self-Enhancement values    | 3.79                 | 1.08 | 3.77             | 1.24 |
| Self-Transcendence values  | 4.37                 | 0.86 | 4.19             | 1.04 |

frequency of prosocial behavior and the intensity of values support. The respondents from the “pre-pandemic” group were more involved in offline prosocial behavior than respondents from the “pandemic” group ( $t = 3.08, p < .01$ ). A similar result was found regarding Self-Transcendence values: they were more important for respondents from the “pre-pandemic” group than for respondents from the “pandemic group ( $t = 2.06, p < .05$ ).

Thus, although the priorities of values and prosocial behaviors are the same in both groups, during a pandemic people are less likely to engage in prosocial behavior in real life and rely less on the values of Self-Transcendence. Taking this into consideration, we shall further consider the relationship between values and prosocial behavior in both contexts.

*The Relationship between Individual Values and Prosocial Behavior*

The results of a regression analysis of the relationship between individual values and prosocial behavior in the “pre-pandemic” group (Table 2) showed that Self-Transcendence values only contributed to offline prosocial behavior. At the same time, both Self-Transcendence values and Self-Enhancement values contributed to online prosocial behavior.

The regression analysis of the relationship between individual values and prosocial behavior in the “pandemic” group (Table 3) showed that prosocial behavior in both contexts was promoted by the values of Self-Transcendence and Openness-to-change, and hindered by the values of Conservation. That is, the same values were associated with prosocial behavior in both contexts during the pandemic.

It can be inferred that there are differences in the value-motivational basis of prosocial behavior when comparing a relatively calm period and a pandemic period.

**Discussion**

It can be concluded that prosocial behavior is experienced differently during a calm period and a pandemic period. Differences in the motivational triggers of prosocial behavior were found in both contexts of the implementation of prosocial behavior.

*Table 2*

**The Relationship between Individual Values and Prosocial Behavior in the “Pre-Pandemic” Group**

| Dependent variable       | Prosocial behavior offline/online |                  |              |                    |
|--------------------------|-----------------------------------|------------------|--------------|--------------------|
|                          | Openness to Change                | Self-Enhancement | Conservation | Self-Transcendence |
| Independent variables    |                                   |                  |              |                    |
| Coefficients ( $\beta$ ) | 0.03/0.11                         | 0.01/0.21**      | 0.03/0.03    | 0.38**/0.14*       |
| $R^2$                    | 0.17/0.14                         |                  |              |                    |
| F                        | 15.36**/11.94**                   |                  |              |                    |
| Cohen’s $f^2$            | 0.21/0.16                         |                  |              |                    |

\*  $p < 0.05$ , \*\*  $p < 0.01$ .

Table 3

**The Relationship between Individual Values and Prosocial Behavior  
in the “Pandemic” Group**

| Dependent variable       | Prosocial behavior offline/online |                  |                 |                    |
|--------------------------|-----------------------------------|------------------|-----------------|--------------------|
|                          | Openness to Change                | Self-Enhancement | Conservation    | Self-Transcendence |
| Coefficients ( $\beta$ ) | 0.19*/0.18*                       | 0,03/0.08        | -0.31**/-0.26** | 0.53**/0.43**      |
| $R^2$                    | 0.29/0.25                         |                  |                 |                    |
| F                        | 19.66**/15.11**                   |                  |                 |                    |
| Cohen's $f^2$            | 0.41/0.33                         |                  |                 |                    |

\*  $p < 0.05$ , \*\*  $p < 0.01$ .

The results showed that prosocial behavior is more likely to be implemented in real life than in an online context. This pattern applies to the group both before the pandemic and during the pandemic. The lower levels of prosocial behavior in the online environment can be explained by the rather low levels of interpersonal trust in Russia (Avdeeva, 2019) and the lack of clear and predictable social norms in the online space (Levin, 2002), which negatively affects prosocial behavior (Haller et al., 2022).

Within-group analysis of individual values showed a high significance of the Self-Transcendence value compared to other higher-order values in both groups. Thus, we see the same priorities of values during the pandemic as before the pandemic. Past research indicates a relative stability of values even during significant life changes (Schuster et al., 2019).

Between-group analysis showed a decrease in offline prosocial behavior during the pandemic compared to the period before the pandemic, which may be due to restrictive measures and reduced social interaction during that time. A possible mechanism contributing to the decline in prosocial behavior in real life may be a response to the stress of social exclusion, which reduces empathy and hence a decrease in prosocial behavior (Twenge et al., 2007).

The results showed that the importance of Self-Transcendence values is significantly lower for the group during COVID-19, which means that the importance of caring for loved ones and society decreases. Past research showed an adaptive response of values to significant changes in living conditions, where people were forced to reduce social interaction (Bonetto et al., 2021; Daniel et al., 2022). The higher the levels of worry about the pandemic, the more likely the values of Self-Transcendence are to decline (Daniel et al., 2022).

Before the pandemic, only Self-Transcendence values contributed to offline prosocial behavior, while Self-Transcendence and Self-Enhancement values contributed to online prosocial behavior. In general, Self-Enhancement values indicate the priority of personal interests over the needs of other people, which, as a result, reduces assistance to others (Caprara & Steca, 2007; Daniel et al., 2015). However, it has also been previously found that Self-Enhancement values contribute to prosocial behavior in an online context (Efremova & Bultseva, 2020). A possible explana-

tion is the online environment, which allows the successful implementation of self-ish urges, and can also act as a motivational basis for helping (Feigin et al., 2014).

During a pandemic, prosocial behavior in both contexts is promoted by the values of Self-Transcendence and Openness to Change, and hindered by the values of Conservation. This result confirms the adaptability of the value-motivational basis in response to significant changes in the external environment. Openness to Change values and even Self-Enhancement values may have a positive impact when they represent people's desire for social change which can be achievable via prosocial actions (Kesberg & Keller, 2021). In a pandemic, personal values of Conservation, which are oriented towards self-protection, demonstrate a protective role on normative behaviors (Tabernerero et al., 2020).

The main limitation of the study is that it is not longitudinal. Therefore, it does not allow for a more precise identification of patterns of change in values and prosocial behavior under the impact of the pandemic in the same group in two different periods: before and during the pandemic. At the same time, the results obtained intersect with past studies and, in turn, expand the understanding of the contextual conditionality of the relationship between individual values and prosocial behavior.

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