Work Alienation During COVID-19: Main Factors and Conditions (An Example of University Professors)

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\textbf{Background.} The economic and social consequences of the COVID-19 pandemic pose a threat to psychological well-being in different spheres of life. In accordance with Self-Determination Theory, it is assumed that working conditions during a pandemic frustrate the psychological needs of people in the workplace, thereby increasing their alienation.

\textbf{Objective.} To study the influence of working conditions on work alienation among employees during the COVID-19 pandemic. As factors of working conditions, we studied workplace distancing (isolation), temporary flexibility of work, the use of information and communication technologies (ICT), and job insecurity.

\textbf{Design.} The study had a correlation design, used a survey, and consisted of two parts. The first part studied a sample of 62 university professors for dynamics of work alienation at three periods of time. The second part studied 104 subjects for the effect of workplace distancing (isolation), temporary flexibility, ICT, and job insecurity on work alienation.

\textbf{Results.} In the first part of the study, it was found that work alienation increased during the pandemic. The second part showed that workplace distancing, temporary flexibility of work, ICTs, and job insecurity are significant predictors of work alienation among university professors.

\textbf{Conclusion.} Changes in working conditions during a pandemic have negative consequences for employees in the form of alienation from work. This finding can have practical application in recommendations for organizations planning structural changes or transfer of employees to telecommuting.

\textbf{Keywords:} work alienation, working conditions, temporary flexibility of work, information and communication technologies, job insecurity, COVID-19
Introduction

The current situation in the world caused by the COVID-19 pandemic has many consequences, associated not only with physical health, but also with a wide range of phenomena of a psychological nature. Studies have been published confirming the negative effects of COVID-19 on mental health, such as symptoms of anxiety and depression, as well as stress and lack of self-esteem (Rajkumar, 2020). People have experienced an increase in negative emotions (anxiety, depression, and indignation) and in sensitivity to social risks, a decrease in satisfaction with life (Li, Wang, Xue, Zhao, & Zhu, 2020), and a lower level of positive emotions (Rasskazova, Leontiev, & Lebedeva, 2020). One study confirmed the association of economic and daily living conditions with anxiety symptoms during the COVID-19 epidemic (Cao et al., 2020). Several studies have examined the characteristics and conditions of various professional activities of people during the COVID-19 pandemic (Lan, Wei, Hsu, Christiani, & Kales, 2020; Maciaszek et al., 2020; Murphy et al., 2020). Studies have generally concluded that people in professional groups with intense interaction between people (healthcare workers, workers in the service, sales, and education sectors, etc.) are predominantly exposed to dangers in the form of infection and psychological consequences.

Given the impact of changing living conditions during the pandemic on people's psychological well-being, it seems to us important to study the relationship of working conditions with a psychological phenomenon known as work alienation. The theoretical foundation of our study is the basic principles of Self-Determination Theory (Deci & Ryan, 2000) and Kasser’s approach (2009). We assume that changing working conditions hindered the satisfaction of basic psychological needs (autonomy, social belonging, competence [Deci & Ryan, 2000]) and security needs (Kasser, 2009), and play an important role in work alienation.

In this article, we focus our attention on the factors of changed working conditions during the pandemic and their impact on the experience of work alienation among teachers at higher educational institutions. Work alienation (WA) is understood as the psychological separation of the subject of labor from work and is a subjectively experienced state associated with the destruction of interpersonal relationships, which is expressed in the perception by the subject of helplessness, meaninglessness, and self-alienation (Vinokurov & Kozhina, 2020).

While the changes in working conditions caused by the pandemic are global in nature, their specificity for the sample we are examining should be considered in greater detail. As one of the main measures to prevent the spread and infection of COVID-19 in the Russian Federation from March 30 to May 11, 2020, a national self-isolation regime was mandated, and non-working days were introduced. The original document regulating professional activities was a Decree of the President of Russia (March 25, 2020). Further restrictive measures were introduced by state authorities of the constituent entities of the Russian Federation. These measures did not apply to employees of organizations performing activities to ensure the life and safety of the population. The activities of organizations not related to the provision and safety of the population were suspended, and workers who were unable to carry out their professional activities remotely were suspended from performing their jobs. As a result, in some organizations, employees were required to switch to remote working.
The above facts indicate the need for a differentiated approach to analysis of the impact of working conditions on work alienation. Thus, in relation to the sample of university professors we are studying, new working conditions and requirements have arisen: workplace distancing (isolation), temporary flexibility, the use of ICT, and a change in labor intensity. As a general factor associated with socio-economic conditions during the pandemic, we highlight the perception of job insecurity.

Work Alienation

In the psychological literature, there are various approaches to the conceptualization and operationalization of alienation from work; however, all authors consider this as a negative state, a person’s detachment from work, which leads to low productivity, low job satisfaction, and other negative consequences. Empirical studies confirm the devastating consequences of work alienation for employees: changes in attitude to work (for example, reduced involvement in work), changes in behavior (absenteeism), health consequences (burnout), changes in work efficiency (decrease in labor productivity), as well as side effects (alcohol consumption) (Chiaburu, Thundiyil, & Wang, 2013).

One of the common approaches to the study of alienation is the socio-psychological concept developed by Seeman (1959) and later by Blauner (1964) regarding work alienation. According to this approach, alienation is analyzed as a specific state of a person, consisting of five main characteristics: powerlessness, meaninglessness, disorganization of norms, social isolation, and self-estrangement. Each of these aspects of exclusion refers to a certain psychological state, which results from different adverse environmental conditions (Seeman, 1959). Powerlessness is manifested if people feel that they have little control over their work. Meaninglessness occurs when workers feel that they are making insufficient contributions to the overall labor process and, therefore, do not see the significance of their role in it. Isolation means the absence of a sense of identification with the organization, its goals, and their colleagues. Self-estrangement manifests itself when employees feel that their work is not connected with self-realization, that it does not seem to be an end in itself, but only a means for something else, for example, material reward (Blauner, 1964). Many authors consider WA to be the opposite pole of work involvement (Hirschfeld, 2002; Macey & Schneider, 2008; Shantz, Alfes, Bailey & Soane, 2015). This approach is based on Kanungo’s theory (1979), which understood alienation as a generalized cognitive state of “psychological distancing” from work. The author explains the mechanism of “alienation–involvement” with reference to satisfying the psychological needs of the individual in the workplace. For different groups of people, different needs, depending on their intensity, will play a role in the emergence of states of either involvement or alienation.

In our view, alienation from work is a complex negative mental state associated with the destruction of interpersonal communications, expressed in the perception by employees of powerlessness and loss of meaning concerning their activity, working environment, and social environment; loss of self-identification in the role of an organizational employee; and violation and errors of interaction and communication (Vinokurov & Kozhina, 2019).
In all of the above studies, work alienation was considered as a construct subject to external changes in the conditions and content of work. We therefore assume that due to the changed working conditions during the pandemic, workers are becoming more alienated from their work. These assumptions are presented in the following hypothesis:

**H1:** Work alienation increases during the COVID-19 pandemic.

**Workplace Distancing (Isolation)**

By workplace distancing (isolation), we mean the performance of one's job at a physical distance from the immediate place of work in the organization. Given the spatial distance, people lose their usual workplace and work organization, as well as the opportunity to interact with other people in a traditional workplace. The conditions of the workplace distancing have some similarities with the conditions of telework, namely, that employees can work outside the organization's premises (Bailey & Kurland, 2002). The main difference between flexible spatial organization of work and spatial distance of work is that in the former, under conditions of telework, employees agree to and accept these working conditions; they have autonomy regarding where they can perform their work duties. In contrast, with spatial distance (isolation), employees lack the psychological readiness to carry out professional activities in these conditions. Thus, university teachers who were forced to work at home, outside their classrooms, had to learn new methods of work without preparation, and to compile new materials for lectures, seminars, and certifications suitable for remote work.

We assume that spatial distance increases labor intensity and stress. Additionally, workplace distancing is associated with social isolation (Cooper & Kurland, 2002; Harris, Winkowski & Engdahl, 2007). These authors argue that the spatial distance makes employees invisible in the workplace; they are excluded from office gossip and tend to exchange only formal information (Bailey & Kurland, 2002), lack affective attachment and emotional support (Mann, Varey & Button, 2000). Golden, Veiga, and Dino (2008) suggest that physical separation from colleagues means psychological separation and a feeling of alienation that is associated with reduced labor productivity. Thus, in conditions of workplace distancing, there is increased physical and psychological stress. It can be assumed that with a heavy workload, workers feel helplessness, powerlessness, and begin to feel alienated from their work. Moreover, spatial distance and temporary mobility create conditions of social isolation, in which the worker experiences loneliness in the workplace. Needs for social attachment at the workplace cannot be satisfied, which entails alienation from the social norms and values of the organization, and alienation from work in general. These assumptions allow us to put forward a hypothesis:

**H2:** With an increase in the subjective significance of workplace distancing, the state of alienation from work is more intense.

**Temporary Flexibility of Work**

Temporary flexibility is characterized by flexible planning and distribution of working hours, in which employees decide when they will perform their duties
Temporary mobility is often analyzed in studies concerning perception of the balance between work and personal life. The ability to independently plan your working hours can lead to increased working hours and overtime, the desire to constantly and quickly respond to messages. Studies on the role of flexible work schedules indicate that with a constant connection to work, a person feels emptier. At the same time, incoming emails often have nothing to do with work, which in turn causes exhaustion (Ten Brummelhuis, Bakker, Hetland, & Keulemans, 2012). Due to these factors, employees experience pressure and stress at the workplace. Studies show that telework pressure is negatively related to satisfaction with the work–life balance. This connection can be explained by psychological detachment (Barber, Conlin, & Santuzzi, 2019).

Temporary flexibility in working time can also affect the perception of social isolation by employees. Social isolation is an objective characteristic of the employee’s social environment, which is reflected in the degree of social interactions and relationships in the workplace (Wright, 2005). Some studies have found that flexible working conditions with respect to time and space are a factor in professional and social isolation (Gainey, Kelley, & Hill, 1999; Turban & Wang, 1995). Employees who have autonomy in planning their time may intentionally or unintentionally reduce the duration of interactions or exclude the time for interactions with colleagues, superiors, or subordinates. Thus, as with workplace distancing, flexible work schedules can lead to a high degree of stress, exhaustion, and feelings of emptiness, making a person experience a state of helplessness in the workplace, which is one of the symptoms of work alienation. Besides, the susceptibility to social isolation with temporary work flexibility is important for work alienation, as this construct is associated with broken communication and communication processes, and develops due to low satisfaction of the need for social support at the workplace. These factors allow us to put forward the following hypothesis:

H3: With increasing temporal flexibility of work, the state of work alienation increases.

Information and Communication Technologies

The use of information and communication technologies means that employees use new media technologies, such as smartphones, tablets, laptops, and video conferences, to communicate with colleagues, superiors, or customers (Demerouti et al., 2014). Both in terms of temporary work flexibility and ICT, studies show that these factors increase the workload and, as a result, increase stress. Working relations are mixed with family life, which manifests itself in a low quality of work–life balance (Fazili & Khan, 2017).

Research on telework is controversial regarding the positive and negative effects of ICTs on social relations in the context of work. Several studies have noted that widespread use of the Internet gives employees fewer opportunities for social interaction (Mann & Holdsworth, 2003; Nie & Erbring, 2000; Vega & Brennan 2000). Although some technologies approach the richness of personal communication, they are not equivalent and cannot replace eye contact and physical presence, are
not able to transmit a full range of meaningful information for interpreting interactions (Straus & Olivera, 2000). We assume that the widespread use of ICT in work affects the distortion of information transfer and causes a lack of feedback. This, in turn, can affect the awareness of the meaning of one’s work, as well as adherence to the norms and values of the organization. Therefore, we can assume that if communication between members of the organization occurs exclusively through ICT, employees are alienated from their work, team, and organization. These assumptions allow us to formulate a hypothesis:

**H4:** With an increase in the use of ICT, the state of work alienation increases.

**Job Insecurity**

We consider job insecurity to be another factor in labor conditions during the pandemic. Job insecurity is manifested in subjective perceptions about employment and unemployment and reflects the uncertainty, insecurity, helplessness, and powerlessness that people experience when they are not sure that their work will remain stable (De Witte, 2005). They are afraid of losing their job or that there will be changes in significant parameters of their employment—its volume, remuneration, the regime or intensity, a change of position (Demin & Petrova, 2010). We consider this factor as common to workers of different professional groups, since it can reflect not only individual career prospects in the organization, but also the socio-economic conditions of society as a whole. Studies show that reliability negatively predicts alienation from work (Taamneh & AL-Gharaibeh, 2014; Zaki & Al-Romeedy, 2018). The results of a study on structural changes in the organization showed that job insecurity influenced affective commitment, while this relationship was partially mediated by exhaustion and low perception of fairness (Schumacher, Schreurs, Van Emmerik & De Witte, 2016). Based on the results of previous studies, we assume that the pandemic creates changes in working conditions in which workers perceive high job insecurity. Since work alienation is analyzed as a complex state, the job insecurity will have an impact, first of all, on such a symptom of alienation as helplessness. Together with a feeling of unreliability and powerlessness about their future in a particular workplace, subjects feel increased alienation from their work and organization. This assumption is expressed in the hypothesis:

**H5:** Job insecurity predicts the dynamics of work alienation.

**Methods**

This study had a correlation design, used a survey method, and consisted of two parts. In the first part, in order to determine the dynamics of WA during the pandemic period, a measurement of this variable was administered to subjects who had previously participated in a dissertation research, which was devoted separately to the problem of work alienation. Information was obtained from three time points of WA measurement: the distance between the first and second survey was 1.5-2 months, between the second and third, 1 year and 3 months. The second part of the study investigated the effects of working conditions on WA indicators.
Participants
The first part of the study, devoted to the dynamics of WA, surveyed 62 respondents who were able to answer the questionnaire about work alienation at all three time points. The sex distribution was 44.6% men and 55.4% women; the average age was 46.29 years (SD = 11.2). The second part of the study involved 104 people, of whom 41.3% were men and 59.7% women; the average age was 48.29 years (SD = 12.3).

The study sample consisted of university professors. This sample was used because WA is especially characteristic of knowledge workers (Archibald, 2009; Nair & Vohra, 2010). All subjects had a permanent labor contract and a 40-hour workweek. The complete survey that includes the questionnaire “Working Conditions for Teachers in a Pandemic” took place in the second week of June 2020. From March 30, and, including the period of the survey, all subjects were transferred to telecommuting. The data was collected anonymously; participants were informed through an introductory text about the anonymity and voluntariness of their participation.

Questionnaires
Alienation from work was measured by the Questionnaire of Work Alienation (Aigner, Marx, Panhans, Sassmann, & Seifert, 2014), adapted for the Russian-language sample by Vinokurov and Kozhina. The questionnaire consisted of a scale of alienation from work at the level of satisfaction of basic needs, which included 60 questions. Cronbach’s alpha for this scale was 0.81, which indicates good reliability.

The second stage of the study was to measure the influence of factors of working conditions on WA. Workplace distancing, temporary flexibility, and the use of ICTs were measured using the authors’ questionnaire, Working Conditions for Teachers in a Pandemic, compiled by Kozhina and Vinokurov. This questionnaire was constructed as a written version of a structured interview and included 15 points, five items for each of the conditions (scales). The response format ranged from 1 (never) to 5 (always). Example items are: “Can you do your job on the university premises?” (reversed for workplace distancing); “Can you choose your working hours freely?” (for temporary flexibility); “Can you hold lectures, seminars, and other course formats through online conferences (Zoom, Skype, etc.)?” (for ICT). The calculated value of Cronbach’s alpha = 0.80 indicates a good internal consistency of the scale descriptions.

Job insecurity was measured using the questionnaire Job Insecurity Measurement Technique (Demin & Petrova, 2010), which contained 28 items.

Results
Statistical analysis of the data was performed using SPSS 22. The variables were checked for normal distribution and sphericity and they satisfied these conditions (Table 1). In order to test our first hypothesis, a one-way analysis of variance with repeated measurements was applied. The results, presented in Table 2, confirmed a significant change in the indicators of work alienation in time.
Table 1
Descriptive statistics for three time points of measure of work alienation

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Skew</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>work alienation1</td>
<td>62</td>
<td>6.40</td>
<td>0.89</td>
<td>0.47</td>
<td>0.79</td>
</tr>
<tr>
<td>work alienation2</td>
<td>62</td>
<td>6.66</td>
<td>0.75</td>
<td>0.45</td>
<td>0.76</td>
</tr>
<tr>
<td>work alienation3</td>
<td>62</td>
<td>9.78</td>
<td>1.07</td>
<td>0.49</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Table 2
Repeated measures analysis of variance of work alienation

<table>
<thead>
<tr>
<th>Effect</th>
<th>MS</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Greenhouse Geisser</th>
<th>Huynh Feldt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>.07</td>
<td>3</td>
<td>29.53</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

The second stage of the study was conducted on a sample of 104 participants, which allowed us to apply regression in accordance with general recommendations for the sample size. To study the effect of working conditions on alienation from work, a multiple regression analysis was performed (Table 3), showing that 56% of the variance of the variable of alienation from work can be explained by the combined influence of the independent variables: workplace distancing, temporal flexibility, ICT, and job insecurity. The predictor of job insecurity has a stronger effect on the assessment of WA. The variables workplace distancing and temporal flexibility make approximately the same contribution. The influence of the ICT predictor on work alienation is weaker than the other variables. The values of the corresponding coefficients and level of significance are presented in Table 3.

Table 3
Multiple regression analysis for effect of working conditions on Work Alienation

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace distancing</td>
<td>0.82</td>
<td>0.72</td>
<td>0.48**</td>
<td>.56**</td>
</tr>
<tr>
<td>Temporal flexibility</td>
<td>1.15</td>
<td>0.62</td>
<td>0.46**</td>
<td></td>
</tr>
<tr>
<td>ICT</td>
<td>1.06</td>
<td>0.53</td>
<td>0.42**</td>
<td></td>
</tr>
<tr>
<td>Job insecurity</td>
<td>1.27</td>
<td>0.76</td>
<td>0.51**</td>
<td></td>
</tr>
</tbody>
</table>

Note. **p < .01; N = 104.

Discussion
The first hypothesis of our study can be confirmed, since we found a significant change in the alienation from work between measurements of this variable over time. Work alienation, measured in the third time period, corresponding to the period of the COVID-19 pandemic, showed a significant difference and higher
rates in comparison with the first and second time periods. This leads us to the conclusion that the work alienation of university professors who were transferred to remote work increased during the pandemic. These results are consistent with previous studies considering work alienation as a construct subject to external changes in the workplace related to working conditions (Chiaburu et al., 2013). We hypothesized that certain changing working conditions influence the perception of alienation from work. So, hypothesis 2, about the influence of workplace distancing on the WA was confirmed, and workers who are forced to carry out their professional activities at a physical distance from their traditional place of work experience work alienation. The results of the study support hypothesis 3, that temporal flexibility is a significant predictor of WA. It follows from this that the more the employee has the opportunity to plan his own work schedule, the more he is alienated from it.

The fourth hypothesis, confirming the effect of the use of ICT on WA, was also confirmed: The more workers use ICT for work purposes, the higher their work alienation. These results confirm the literature on flexible working conditions and the increased use of ICT for communication in the workplace as a threat to the psychological well-being of workers.

It should be noted that in this research, the studied working conditions were introduced rapidly, for prevention of infection with COVID-19, beyond the will and choice of workers. On this basis, the results of our study differ from the conclusions of some studies indicating the positive consequences of telework for employees and organizations, such as increased labor productivity and increased job satisfaction.

The fifth hypothesis also finds confirmation, since job insecurity is a significant predictor of WA. Therefore, the unreliability of work is a factor in predicting the dynamics of alienation from work.

**Conclusions**

This study was designed to shed light on work alienation as a potential psychological consequence of changes in work organization during the COVID-19 pandemic. The objective was, firstly, to study the change in work alienation among teachers at higher educational institutions during the pandemic. Secondly, we aimed to study the effect of changing working conditions on work alienation. The first stage of the study revealed that the indicators of WA during the pandemic period rose. The increasing alienation from work during a pandemic provides a new look at the dynamics of this construct, since the psychological literature shows a shortage of longitudinal studies on this topic (Zeller et al., 1980). It can be assumed that work alienation is a relatively time-stable construct that remains unchanged under stable environmental conditions. At the same time, alienation from work can increase with changing working conditions that frustrate the satisfaction of psychological needs in the workplace (Kanungo, 1979).

In the second part of the research, we studied some working conditions that arose or changed during the pandemic. We found that workplace distancing, temporary flexibility of working time, the use of ICT, and job insecurity determine the work alienation of teachers at higher educational institutions. In formulating the research hypotheses, we proceeded from the fact that these conditions
frustrate the satisfaction of basic psychological needs, in particular, the need for social communication in the workplace (Deci & Ryan, 2000) and the need for security (Kasser, 2009, 2011). Future research should be aimed at a more detailed study of the psychological mechanisms that determine the impact of these working conditions on WA. As variables that play a mediating role in this influence, the work–life balance and loneliness in the workplace could be studied. The possible moderator effect of the need for affiliation and psychological quality of life could also be studied.

As noted above, the investigated working conditions were forced upon employees in unusual circumstances and were not selected by them based on their intentions and preferences regarding the organization of their work. It would be promising to study violations of the psychological contract, as well as the role of autonomy regarding the impact of working conditions on WA.

Concerning practical applications, the results of this study are valuable for the light they shed on the possible consequences of reorganization and structural changes in organizations. The results indicate that providing employees with temporary flexibility for working hours and the ability to perform their work duties at home using ICT rather than in the office can have negative consequences, in the form of increased work alienation. Based on these considerations, we recommend that heads of organizations planning to transfer employees to remote work use a differentiated approach, depending on the psychological characteristics of the employees, to develop methods for preventing work alienation under changed working conditions.

Limitations
As noted above, three time points on one sample of subjects were compared to measure the dynamics of work alienation, with unequal time intervals between the surveys. This limitation is due to the field condition of the study, as we considered unplanned changes caused by pandemic conditions. In the future, we plan to investigate the dynamics of WA using a long-term study with a large number of equally distanced time segments.

The small sample size, consisting of 62 subjects, in the first part of the study should also be noted. Feedback on the third measurement point was low, since not all study participants could be contacted for the third segment of the survey. For future research, it would be necessary to conduct a longitudinal study on a larger sample.

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