Spatiotemporal Representations of Migrants from Big Cities to Saint Petersburg

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Abstract: The integrity of space and time as a chronotope still needs to be researched both from the macro- and microchronotope point of view. The research of spatiotemporal representations of migrants from Russian cities includes three main aspects of migration to a metropolis: experience of living in the conditions of a city with a population of 100-250 thousand people, experience of living in the conditions of a metropolis, and migrant’s chronotope which synthesizes both in itself. It was established that the specifics of migrant’s chronotope as a special kind of microchronotope includes perception of time; a positive attitude towards both past and future time; perceiving new living environment; the attitude towards experience of belonging to the city.

Keywords: chronotope, permanent internal migration, time perspective, metropolis, axiological sphere, time-space characteristics

Introduction

Migration processes of the modern world have spread out quite largely compared to the previous centuries. Considering current circumstances and measures to counteract the spread of coronavirus, there is a probability of a decrease in external and an increase in the importance of internal migration in the near future, since internal migration, as Constant (2020) indicates, is a simpler form of migration without external laws and rules of the participating countries. For both internal and external migration of the population the reasons can vary: from changing the scenery to getting an education, disasters, changing the religion, search of better living conditions and higher salary, etc. But according to Hendriks and Bartram (2019), all types of migrants, even “forced” have the same fundamental goal: to be happier.

Moving to a new place is not only an objective difficulty of deciding to change one’s social environment and place of residence but also a serious challenge for one’s personality resources.
As Zalivanskiy and Samokhvalova (2020) note, a change in residence place leads a migrant to the state of information shock. In the conditions of moving, the individual usually has to change their behavioral patterns. As a result, the more significant the differences in the parameters of “the old” and “the new” living environment (way of life, infrastructure, city architecture, weather conditions, etc) are, the stronger the individual experiences these changes (Tolstykh, 2018; Ukhtomskiy, 2002; Fominykh, 2017; Khotinets & Sun'tsova, 2009; Akhmetshin et al. 2017).

Individual behavioral patterns in a new place are inextricably linked with the inherent in this place, but new to the migrant rhythms and speeds of action. This, in turn, can affect the migrant’s personal attitude to time. Such integrity of space and time is a key aspect of the chronotope that is characteristic of both the individual phenomenon (subjective chronotope) and the surrounding world (macrochronotope) (Fominykh, 2017).

The term “chronotope” is investigated in different scientific spheres but still remains poorly studied. The impact of migrants on the macrochronotope is often studied from the point of view of the consequences of migration processes. For example, external labour migration consequences can be observed in terms of labor market balance in the economic, social, innovative, ecological and geopolitical spheres (Lialina, 2019). In the destination cities, as shown in the research of Ma and Tang (2020), for the case of China, the local impacts of internal migration can be positive in spite of its generally controversial influence on the national economic system: the cities with the best market access to the national market win the productivity boom.

In our study, we find out how an individual’s chronotope changes under the influence of the new place of living that creates a new macrochronotope for a migrant. Subjective chronotope is a time-space organization of subjective reality mediated by cultural symbolics and images of significant others and life events of an individual in combination with images of cultural and historic process. The images of cultural and historic process, according to Medvedev, Martirosyan & Khachatryan (2017: 15), “are included in the space of actual consciousness and are forced out of the horizon of events.”

In the chronotope of one’s subjective reality, a person combines and divides events, objects, and people placing them in different combinations in the common time-space of one’s life. The idea of a chronotopic structure of subjective consciousness has been discussed since Levin’s (2000) works. According to Levin (2000), the psychological space is considered in connection with the ideas of the psychological field as a kind of cross section of a time perspective. The facts that exist at this time include three areas: life space (the individual and his psychological environment such as needs, motivation, goals); events of the physical and social world that do not affect the life space of the individual at a given time, and a borderline zone of life space: certain parts of the physical and social world that are currently affecting the senses (Martirosyan, 2017).

Over the course of long-going studies on the subject in psychology, it has been presented mostly by either its time or its space component: time perspective and psychological space of an individual have been studied independently of each other, though their unity has been declared. Such position has been, in many regards, kept till today (Abulkhanova & Berezina,

We will take permanent internal migration as a “bifurcation point”. When an individual moves from certain macrochronotope conditions to others, the subjective chronotope changes.

Our research aims to find out changes in subjective chronotope and individual resources important in that process, with special emphasis on changes in individual’s perception of time/space coordinates of the surrounding world that happen with changing place of residence and living conditions (Martsinkovskaya, 2016; Martsinkovskaya, Izotova & Turusheva, 2016; Miklyaeva & Rumyantseva, 2008; Nartova-Bochaver, 2008; Nikishina, Petrash & Kuznetsova, 2015; Pavlova & Sergienko, 2016; Politov, 2015; Ananyev & Lomov, 1961).

The investigation of spatial structure of the individual’s chronotope when changing objective space-time coordinates of their life as a result of moving allows not only to integrally look at the term of chronotope but also to form an idea of a space-time construct of individuals who have migrated, which in its turn forms an idea about practical work with migrants when dealing with an issue of damages in the structure of time and space ideas.

The working hypothesis is the assumption about the existence of a spatial construct—the migrant’s chronotope. The migrant’s chronotope, when moving from a city to a metropolis, acquires specific characteristics:

1) a change in attitude towards one’s past and future;
2) an assessment of the new living environment as less friendly in combination with the growing need for identification with the environment;
3) the increasing importance of an individual’s temporal characteristics.

Methods

We designed the research of spatiotemporal representations of migrants from cities according to three main aspects of migration to a metropolis:

1) experience of living in the conditions of a city,
2) experience of living in the conditions of a metropolis,
3) and the so-called “migrant’s chronotope” which synthesizes both experiences in itself.

With the regard to these aspects, at the first stage of our research we study the chronotope of people living in a city and the chronotope of people living in a metropolis. At the second stage we analyze the chronotope of individuals who have permanently migrated from a city to a metropolis and compare it with the results of the first stage.

The research was conducted from 2017 to 2018 in Russian Federation and included the following centers of the migration: Saint Petersburg (Northwestern Federal District), Pskov (Northwestern Federal District), Veliky Novgorod (Northwestern Federal District), Petropavlovsk-Kamchatsky (Far Eastern Federal District).

The main chronotopic characteristics of Saint Petersburg as a metropolis are presented in Table 1. Saint Petersburg is a city with a highly developed infrastructure. A large number of educational institutions affects the number of migrants, the level of professional competition and the quality of work performed. The multinational composition of the population ensures the
integration of the cultural experience of each nationality and creates a unique cultural and historical context of Saint Petersburg. The development of infrastructure and transport mobility ensures the maintenance of a high level of temporal characteristics of Saint Petersburg.

According to Russian law (SP 42.13330.2011), Veliky Novgorod, Petropavlovsk-Kamchatsky, Pskov are classified as big cities. The choice of these cities for our research is determined by the following aspects.

Petropavlovsk-Kamchatsky is located in the Far East of the Russian Federation. When studying permanent internal migration to a metropolis, the factor of remoteness from the final point of migration may have a side effect on the results. To control this influence, two cities were chosen (Pskov and Veliky Novgorod), which are geographically closer to Saint Petersburg, but approximately similar in spatial and temporal characteristics to the city of Petropavlovsk-Kamchatsky. The choice of two cities from the same region as Saint Petersburg is determined by the desire to reduce the impact on the research results of the unique characteristics of the city itself. A comparison of the main chronotopic characteristics of cities is presented in Table 1.

Table 1. The main chronotopic characteristics of centers of the migration

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Saint Petersburg</th>
<th>Petropavlovsk-Kamchatsky</th>
<th>Pskov</th>
<th>Veliky Novgorod</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation date</td>
<td>1703</td>
<td>1740</td>
<td>903</td>
<td>859</td>
</tr>
<tr>
<td>Population, people(^1)</td>
<td>5,398,064</td>
<td>179,586</td>
<td>210,340</td>
<td>224,936</td>
</tr>
<tr>
<td>Climate</td>
<td>Humid continental climate with the influence of the Baltic Sea, which brings warm cyclones, rainy and short summers, mild, wet winters.</td>
<td>The climate of the city is temperate, at the same time it has the features of a sea and monsoon climate</td>
<td>The climate is transitional from temperate to temperate continental, with mild winters and warm summers.</td>
<td>The climate is temperate continental, with cold snowy winters and moderately warm summers.</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Developed</td>
<td>Medium developed</td>
<td>Medium developed</td>
<td>Medium developed</td>
</tr>
<tr>
<td>Architecture</td>
<td>Architecture combines both Western and Russian styles, characterized by a variety of buildings</td>
<td>Monotonous architecture, predominance of five-storey buildings</td>
<td>The predominance of low buildings, the presence of historical monuments</td>
<td>The predominance of low buildings, the presence of historical monuments</td>
</tr>
</tbody>
</table>
The Table 1 demonstrates that the main chronotopic characteristics of Veliky Novgorod, Petropavlovsk-Kamchatsky, and Pskov are approximately similar. Based on this fact we organized a model of comparative research of the migration directions.

To trace the influence of the change of a region on the chronotope of individuals who migrated, we analysed data in three directions of the migration (Table 2).

The study involved respondents aged 20 to 64 years (105 men and 107 women). Three experimental groups included migrants: persons who changed their place of residence from a city to the metropolis. There were four control groups (total number 123 people) that included respondents living in mentioned above centres of migration since birth and not planning to move to another city for permanent residence (not migrants).

All migrants live in the metropolis for more than 3 years from the moment of moving. All respondents in the control groups were living in cities since birth (minimum 20 years).

Choosing the diagnostic toolkit, we relied on the understanding of the chronotope as a subjective attitude towards the present and the aspects of the time perspective, assessment of the city environment, assessment of the living medium as a whole, and the axiological space of an individual in the conditions of objective living space.

Table 2. Groups involved in the research

<table>
<thead>
<tr>
<th>Control group (metropolis)</th>
<th>Experimental groups</th>
<th>Control groups (cities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 residents of Saint Petersburg</td>
<td>Direction of the migration flow “Petropavlovsk-Kamchatsky–Saint Petersburg”</td>
<td>35 residents of Petropavlovsk-Kamchatsky</td>
</tr>
<tr>
<td>35 people who moved from Petropavlovsk-Kamchatsky to Saint Petersburg for permanent residence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28 people who moved from Pskov to Saint Petersburg for permanent residence</td>
<td>Direction of the migration flow “Pskov–Saint Petersburg”</td>
<td>28 residents of Pskov</td>
</tr>
<tr>
<td>26 people who moved from Veliky Novgorod to Saint Petersburg for permanent residence</td>
<td>Direction of the migration flow “Veliky Novgorod–Saint Petersburg”</td>
<td>25 residents of Veliky Novgorod</td>
</tr>
</tbody>
</table>

According to that the following methods were applied:
- original questionnaire that we developed for this research for collecting information about respondents (gender, age, education, work, reasons for moving, time of stay in the city, subjective boundaries of the present);
- semantic time differential (Wasserman et al., 2005) adjusted with a stimulus “present” for examining the subjective meaning of the present time depending on the individual experience and emotional state of the subject. The semantic time differential contains 25 polar scales,
which are united into 5 factors: activity, emotional coloring, size, structure, sensibility. On each scale, polar dots are represented by adjectives–antonyms that metaphorically characterize time;

- method of subjective assessment of executability of basic values (Litvina, Muravyova & Bogomaz, 2015) to assess how respondents’ values are realized in the city where they live; with the ratings (7-point scale) that respondents give to the importance of 20 basic values, an individual profile of the hierarchy of values is built and the index of the hierarchy of subjective values is calculated; the basic values are the following: have a good job, be healthy, be financially secure, have a prosperous family, achieve success in the profession, be respected, achieve career success, love and be loved, become free, feel safe, become famous, achieve your desired goal, live a full life, find the meaning of your life, know everything, be an example for others, establish yourself in life, become unique and original, have power, and be fair;

- time perspective questionnaire by Zimbardo in the adaptation of Syrtsova, Sokolova and Mitina (2008) for the diagnosis of the system of relations of personality to the time continuum. Contains 5 scales for assessment: negative attitude towards the past, positive attitude towards the past, future, fatalistic present, hedonistic present;

- association experiment with a stimulus “my city” to identify categories through which the urban environment is evaluated; this technique allows to reveal associations that have developed in the individual’s previous experience;

- scale of identification with the city (Miklyaeva & Rumyantseva, 2011), that includes 5 semantic blocks: external value, general affection, connection with the past, perception of nearness, goal setting;

- authors’ semantic differential “Living Environment” designed for the purpose of research that allows to study the subjective attitude to the environment using opposite pairs of lifestyle characteristics;

- methods of causometry (Kronik & Akhmerov, 2003) to study the subjective image of the path of life and psychological time of the personality.

The results of the research on migration in terms of the regional aspect were compared, which allowed to identify the specifics associated directly with moving from a city to the metropolis, and additionally to describe the specifics of the migrant’s chronotope in terms of the change of the residence region or the change of the place of residence within the same region. In this article, we take a close look at the specifics of the migrant’s chronotope regardless of the direction of migration.

When processing the data, content analysis, Student t-test, Fisher F-test, and factor analysis were used.

**Results and Discussion**

**Category of time in the chronotope structure**

The data analysis showed that the content of the category of time in the chronotope structure is represented by the following parameters: “Activeness” (dynamic characteristics of psychological time; for people with high rates, mental stress is characteristic, and for people with low rates–lack of tone, according to Wasserman et al. (2005)), “Emotional Coloring” (predominantly affective characteristics of psychological time; high indicators reflect the
subject’s satisfaction with the actual life situation, an optimistic vision of the environment, the
prevalence of positive emotions and feelings in the structure of experiences, and low indicators
indicate negative emotions and feelings prevail in the structure of the subject’s experiences,
according to Wasserman et al. (2005), “Structure” (characteristics of psychological time, which
are defined by such epithets as “understandable-incomprehensible”, “indivisible-
divisible”, “continuous- discontinuous”, “reversible-irreversible”, “rhythmic-irregular”; high
indicators on a scale can be interpreted as evidence of clarity and orderliness of the subject’s
ideas about the corresponding time period, and low indicators indicate the subjective perception
of the external and internal world in the estimated period of time as weakly structured and
uncontrolled, according to Wasserman et al. (2005)), and an analysis of time perspective
according to Syrtsova, Sokolova and Mitina (2008).

At the significance level of $p \leq 0.01$, differences were identified in the parameter “Activeness”
between migrants and not migrants. The intergroup comparison of average indexes allows
drawing a conclusion about low markers of activity among the inhabitants of a metropolis. In
spite of a rather fast pace of life of a metropolis, respondents assess their time as being steadier
and more permanent. A possible explanation can consist in the following: overload with
external stimuli of the perception field of metropolis inhabitants leads to slowing down the
subjective time of the inhabitants as a kind of psychological defence of one’s personal
boundaries. Due to a great difference in the pace of life between the metropolis and cities,
migrants assess their present as being more active and sensate in the first years after having
moved. Migrants assess time after migration as being more active, which can be connected with
the change of scenery, the need to establish new social contacts, getting settled in a new place
of residence. Everything that is happening now to the respondents of the experimental groups is
adjustment to new living conditions which, in turn, influences the perception of activeness of
time.

Statistically significant differences at the level of $p \leq 0.01$ in the parameter “Emotional
Coloring” between the sample of migrants and the metropolis permanent inhabitants (not
migrants) can also be connected to the process of adjustment. The perception of a new living
medium is associated with experiencing emotions of different modalities. That said, the shorter
the migration distance, the smaller the differences in this index. Correspondingly, smaller
distances can contribute to frequent tourism between cities (which was marked by several
respondents in significant events in the casuometric research) which, in turn, leads to
habitation and decrease in emotional response after the move. In Russian Federation there is a
growth of domestic tourism and the urban travel takes a significant place, especially in cities
with a population of over one million people (Dedusenko, 2017).

The index of structuredness (parameter “Structure”) is connected with the consistency of
time. It can be assumed that low indexes in this parameter in the metropolis inhabitants are
associated with the fast pace of life where it is difficult to trace the structure of the present. At
the same time, an opposite situation is observed in a city with low temporal characteristics.
High indexes of structuredness in the individuals who migrated can be connected with strict
planning of their time because of a multitude of tasks associated with the move. Migrants assess
the present as being more sensate. The move for permanent residence to another city leads to
stronger impressions from what is happening; it is connected with the change of the habitual lifestyle. Basically, it is a kind of sensitivity period in an individual’s life, a period when sensitivity towards what happens increases.

Intergroup analysis of time perspective according to the methods of Zimbardo (Syrtsova, Sokolova & Mitina, 2008) showed that there are statistically significant differences in the parameters of negative attitude towards the past (degree of rejection of one’s own past, which is disgusting and full of pain and frustration), positive attitude towards the past (the adoption of one’s own past, in which any experience is an experience that promotes development and leads to the present state), and the parameter of fatalistic present (the present is seen to be independent of the will of the individual, initially predetermined, and the individual to be subordinate to fate), and in some cases—the parameter of hedonistic present (the present is seen as divided from the past and the future, the only goal is pleasure):

1. Positive attitude towards the past is more characteristic of city inhabitants (not migrants), independent of the region.

2. Among migrants, a low level of negative attitude towards the past and a high level of positive one are present. It appears that, regardless of the events that led to moving to another city, the individuals who have migrated have a positive attitude towards their past. This can be connected to both the general model of attitude towards the past among city inhabitants (not migrants) and the perception of the past as a means of reaching the goal of moving (one of the reasons indicated by respondents in the questionnaire).

3. Statistically significant differences in the parameter “Fatalistic present” are connected with overstated assessment in the sample of metropolis inhabitants (not migrants). Migrants do not tend to assess their present that way; it is most likely connected with a certain “euphoria” caused by the move.

Thus, a low level of negative attitude towards the past and a high level of positive attitude towards the past are typical among migrants.

Category of space in the structure of the chronotope

We found out that the category of space in the structure of the chronotope is represented with such parameters as “Negative Disposition”, “Positive Disposition”, “The friendliness of the city”, “External Value” (outgroup and ingroup stereotypes about the benefits of living in a particular city, according to Miklyaeva and Rumyantseva (2011)), “Perception of Nearness” (a sense of emotional bond of a person with a city manifested in a sense of strong connection with its city, according to Miklyaeva and Rumyantseva (2011)), and also specific semantic universals of individuals along with a subjective hierarchy of the migrant’s values.

Low percentage of semantic units included in the category “Negative Disposition”, when assessing the city environment, is observed among all migrants. When individual moves to a new place, the system of ideas about the city environment changes. If the move was also long hoped for (as many respondents indicate in the questionnaire, the move is associated with a long-nurtured dream), the individual primarily perceives the good sides. This conclusion also supports the distribution under the parameter “Positive Disposition” where the percentage of assessments in this category among migrants of all three directions significantly exceeds the same parameter among the control groups (with p≤0.01).
All individuals who migrated from a city to the metropolis give less grading on the parameter of “The friendliness of the city”. This might be associated with the absence of social contacts in the metropolis in the beginning after the move which directly influences the assessment of the city environment through the parameter under investigation. These results correspond with reports on emotional loneliness and a sense of insecurity among migrants because of the distance from home and the lack of family support (Mucci, et al., 2020; ten Kate, Bilecen & Steverink, 2020).

Such parameters as “External Value” (attractiveness from the point of view of others, comparative advantages of the city) and “Perception of Nearness” (experiencing belonging to the city and nearness to it) are more significant for migrants when identifying with the city environment (with the significance level of \( p \leq 0.01 \)) than for not migrants. We should not neglect the fact that the credibility of the district, neighbourhood, or, in our case, a city is of no little importance when choosing a new place of residence. It is logical that in the case of the opportunity to choose the new place of residence, the indexes of this parameter will statistically be significantly different from the results in the group of individuals who are not planning to move.

When looking at the results of the methods of specialized semantic differential “Living Environment” with the application of the method of semantic universals, it is worthwhile to note a few common descriptors (or their absence) between control groups of each migration direction. It points to the prerequisites of the fact that migrants, when moving to a new place of residence and adjusting to new living conditions, as well as interiorizating the specifics of the assessment of environment from the new social environment, will have a wide range of formation of a categorical structure of the living environment assessment. This is also supported by many descriptors included in the semantic universal of migrants. Semantic universals of migrants have a positive emotional component which differs from the perception of the living environment of native city inhabitants. This might be connected with a certain “euphoria” associated with the move.

A distinctive feature of the semantic universal in regards to the living environment of migrants is the assessment of the environment as being developing, creative, interesting, offering a choice.

Subjective hierarchy of migrant’s values differs in the following: a typical decline of positions in the subjective hierarchy identified as “becoming famous”, “feeling safe”, “reaching a desired goal”, “having power”, regardless of the region from which migration has happened.

Distinctive specifics of the index of subjective values hierarchy consist in that migrants’ average ratings significantly differ statistically from the ratings of respective control groups, and the comparison of the averages allows talking about the decline of the index of subjective values hierarchy.

All migrants assess the possibility of fulfilling the value “health” in a metropolis higher than inhabitants of the same metropolis. This might be connected with the understanding of a higher level of healthcare in a densely populated city.

The possibility to fulfil the value “succeeding in a profession” is rated lower by migrants than in their hometown but higher than metropolis inhabitants rate it. This might be attributed to a
conventional impression of the migrants about a limited labour market supply in a city which, after the move, opens up more options for fulfilment. This also might explain the same indexes in the values “succeed in a profession” and “assert oneself in life”.

All migrants assess the possibility for fulfilment of such value as “live a full life” higher than native inhabitants of a metropolis. And also, all migrants think that it is easier to fulfil the value “have power” in a metropolis, while native inhabitants rate the possibility of fulfilment of this value much lower. This might be attributed to ambitions associated with the move, the ambition to “start a new life”.

So, there are specifics of migrants’ axiological space: all migrants rate the possibility of fulfilment of the values “health”, “succeeding in a profession”, “living a full life” higher than native inhabitants of a metropolis.

It is characteristic of all migrants to have desynchronization between a subjective hierarchy of basic values and the possibility of their fulfilment in a new city in the following parameters: succeeding in a profession, fame and popularity, knowing everything, being a role model for others, self-assertion in life, gaining power. Considering that average ratings in these parameters are lower when looking at the value hierarchy than when assessing the possibility to fulfil them, we can conclude that migrants should not encounter any problems regarding the damage in the value structure and the impossibility of their fulfilment.

Moving to a new permanent place of residence and change of objective space-time characteristics lead to a serious change in ideas of objective and subjective space and time. At the same time, we should not forget about specific changes associated with the region from which the migration happened, and the remoteness of the hometown from the metropolis. These changes in the world perception can lead to personal crises and lack of adjustment resources.

Conclusion

When generalizing the results obtained in the course of the research, we can draw a conclusion about the presence of a certain type of chronotope—the migrant’s chronotope with the consideration of the migration direction from a city to a metropolis. The migrant’s chronotope has its specifics. At the current stage, the following distinctive features were identified: time is assessed as being more active and sensate; space is assessed through categories of comfort, territorial sovereignty, aesthetic component, friendliness and positive disposition; perception of nearness, general attachment and connection with the past are important parameters in the assessment of the city environment among migrants; there are specifics in the perception of axiological space. In the course of the research, regional specifics were noted in certain investigated characteristics. Specifically, the influence of the distance between the cities on the change in emotional reactions and the categorical structure of the city environment assessment was detected.

Understanding of how the system of space-time ideas changes in the context of migration, as well as the understanding of the reasons which led to this, will allow constructing proper therapy in the conditions of adjustment disorder or incapability to cope with new world perception constructs. Given results can be useful when working with migrants, developing
correction programs, and during therapeutic guidance. The further integral study of the chronotope structure regarding different migration directions is needed.

References


