

Why are Russian Women Stunning? : General Perspective on Men Deficiency in Russia and Its Effect on Female Premarital Investments

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Abstract- Well-known song in the Soviet Union with the following lyrics: "For ten girls there are just nine boys" was reflecting the situation of gender imbalance, which was observed in the country. Although current Russian statistics do not confirm the misbalanced sex ratio at the marriageable market, there is some evidence that this belief exists among Russians. According to Lafortune (2013) when the men are in short supply, women are investing more than men premaritally even when the returns are lower or the costs are higher for them. So we hypothesize that the more women believe that there are few appropriate partners, the more they engage in pre-marital investments. In this study, we aim to develop few gaps of previous research such as understanding how gender shortage stereotypes may influence the real relationship situation in the society and what are pre-marital investments for Russian women, including their investments in physical attractiveness.

Index Terms- Russian man, sex ratio imbalance, pre-marital investments for women, physical attractiveness

I. INTRODUCTION

In a paper to follow, we are going to elaborate on the stereotype of man shortage in Russia and the aftermath of its existence, i.e. how much Russian women tend to engage in pre-marital investments due to holding this stereotype. The Second World War had significantly changed the sex structure of the Russian population: during it, there were 28 199 127 military people lost, mostly men (Polyakov et al., 2004). This issue had influenced gender ratio in the country: according to the 1959 census (Andreev et al., 1993), there were indeed significantly fewer men than women of young marriageable age. However, the most recent poll (Rosstat, 2015) demonstrates that in contemporary Russia, the sex ratio is more balanced. Although current Russian statistics do not confirm the misbalanced sex ratio at the marriageable market before 35-40 years old, we found some evidence that Russians indeed hold the belief concerning man shortage. For example, survey poll by TeleFom (2014) investigated why people over 30 years old stay single, revealing that 51% of respondents consider that women over 30 years old are not married due to external reasons connected to partners' quantitative or qualitative shortage,

while for men the supposed reason was fear of responsibility and bounding (22%).

In addition to it, we also discovered a gap in the existing research on the topic of gender imbalance. Many researchers focus on how real gender imbalance influences people's behavior, but there is little knowledge of how gender shortage stereotypes may affect the relationship situation in society. That is why we decided to aim our research toward the investigation of the influence of men shortage stereotype on the pre-marital investments, that women make to attract partners.

II. Literatur Review

A. *Pre-marital investments in social exchange theory framework*

To understand women's mating behavior in the situation of imbalanced sex ratio, we can refer to several theoretical approaches from several social disciplines. Demographers focus on changes in the marriage rate, and its structure, e.g., marriageable age of women and men (Udry et al, 1971). Some of them assume that in case of men shortage women might start marrying men who are much older or younger than their age due to so-called "marriage squeeze"- women prefer to marry earlier than men, as well as men, can marry much younger women. This definition was established considering the *postwar baby boom* period in America in 1944-1945 when about 21% of women found it difficult to find a husband (Akers, 1967). There also can be applied Demographic-opportunity theory which assumes that the opportunities to form a romantic relationship and to marry are determined by the availability of the opposite gender (South & Lloyd, 1992). In theory, if there is a shortage of men, the transition to marriage will be delayed and sexual contacts will be less frequent. However the literature is not consistently providing the facts of mate availability influence on the age of first sexual contact, the child's born in the non-marital relationship and the strategies gender in shortage try to implement (Fossett & Kiecolt, 1991)

To understand the behavior of the gender in deficit, we will refer to the interdisciplinary Social Exchange theory. From economists' point of view, it focuses on costs and rewards ratio between people, from sociological and psychological aspects – it refers to disequilibria between gender in surplus and gender in short supply and implicit power distribution, this theory and its

branches demonstrate possible ways of women behavior. Social exchange theory was introduced by George Homans (1958), he defined it as the exchange of material or immaterial activity which be beneficial or costly in a relationship starting from two people. Homans explained it on the example of pigeon which is receiving food or not receiving food from the experimenter. The behavior of the bird depends highly on the outcome, the pigeon can evaluate costs and gains - fatigue of pecking vs. receiving food.

Homans created five propositions which formed a basis for other theorists, developing on Social Exchange theory: (1) success proposition - the behavior which creates positive outcomes will be repeated; (2) stimulus proposition - if the action was rewarded in the past it would be continued; (3) the value proposition - if behavior considered valuable it will occur; (4) deprivation-satiation - if the same reward occurs several times its value decreasing; (5) emotion preposition - higher rewards or lower than expected punishment will lead to individual continuity in ethical behavior. So in early development, social Exchange theory was aimed to define both economic and social outcomes.

Emerson further developed Homans' ideas but started to focus more on power within the relationship, which can occur in exchange processes (Cook&Rice, 2013). Emerson considered mutual dependence between the parties; nevertheless, they are groups or individuals; he assumed that power resides to the actor on whom others depend more than he/she depends on them. So the dependence of actor A upon actor B is proportional to A's motivational investments in B mediated goals and inversely proportional to the availability of those goals to A outside of the A-B relation (Emerson, 1962). In our case, the availability of those goals can be another romantic relationship, not with a B actor. Thus the power of B, according to Emerson (1962) will be the strength of the opposing stand of A, which can get over by B, but this power is not necessarily visible and is occurs only if there is a request from A, which is opposite to B plans. Emerson also describes the possible consequences of unbalanced relations by the example of the relationship of "unpopular puritanical" girl (A) with a young man (B). A highly values being in a romantic relationship but does not have many opportunities to be in them, B is dating other girls and sometimes invite A. When B realizes that he has power in this relationship, he asks A for sexual intimacy. In this case, B has the power advantage, and A can achieve one value only at the expense of another: either maintain puritanical values and consciously change the value of dating or stay with B but redefine her moral values. Even if A solves this painful demand in B benefits, she is still vulnerable to other requirements (Emerson, 1962). The concept of Emerson worked helps to sum up many features of this power to two:

1. The power exists only in relationships and not the property of one actor: B in case of break up with A will not have this power anymore.
2. The power is potential, B can realize that he has the power but not necessarily use it.

Those women understanding that they have little to bargain, try to increase their chances to influence partner. For example, women, guessing that men value highly physical attractiveness, try to use as a "product of exchange" their beauty. To increase their "supply power," women can start investing in improving their appearance, increasing time investments in sport, or raising the

amount of money spending in beauty salons. Thus conceptualization of power and defining it in social exchange theory by Emerson gave rise to further development of Dyadic and Structural power.

B. Pre-marital investments in dyadic and structural power framework

In contrast to the gender-neutral assumption of demographic theories, Guttentag and Secord (1983) demonstrate differences in responses of different gender on sex imbalance. They start with defining what dyadic power - the power in the romantic women-men relationship is. Dyadic power within relationships is determined by the level of a partner's dependency within a relationship: power that is shaped by market characteristics such as how dependent individuals are on their partners economically as well as the availability of attractive alternatives (Uecker&Regnerus, 2010). Consequently, the lack of attractive options, which gives Dyadic power, is often caused by a shortage of one gender in marriageable age (Uecker&Regnerus, 2010). Guttentag and Secord (1983) argue that there is also specific in which gender is in shortage and different consequences: when there are women prevalence the moral standards are changing to more permissive, men demonstrate lower levels of relationship commitment and treat women less favorable, there are high divorce rate and high percentage of men remarriage only, the number of female-headed families is increasing proportionally. When men are prevalent, women are highly valued, have more significant power in the relationship, and better opportunities to be remarried.

Besides dyadic power, there is as well structural power, which is relatively independent on sex ratio but connects with dyadic power. According to Guttentag and Secord (1983), structural power is the control over political, economic, legal, and other critical social institutions and also power with which norms of social behavior can be shaped. Even in the option, when women hold dyadic power, the structural power is still most often at the men's side in the world (Guttentag&Secord, 1983). Authors argue that gender with more structural power can establish norms to maximize their rewards and benefits within relationships; this power helps them to create restrictive gender roles where women's freedom is limited. When men hold both structural and dyadic power, women have little with which to negotiate. Women's economic dependence on men leads to "traditional" gender roles. When there is a shortage of women and structural power of men, women can still bargain, however, when there is a surplus of women, men hold both dyadic and structural power. In this case, they do not have to commit highly to relationships, the balance of investments brought in the relationship by the female partner, and the man is unequal; men will be discouraged from monogamy (Uecker&Regnerus, 2010).

Because Russia is ranked 128 places out 145 on political equality, with differences it top-management positions number and salaries between women and men, we assume that the situation described above about men's structural power is also applied to Russia (Global Gender Gap Report, 2015). Men have a monopoly on power, and it, in turn, gives men the authority to define what is valuable in women and marriage. Pedersen (1991), developing Guttentag and Secord's (1983) study, highlighted that these conditions also might lead to higher promiscuity among women as a strategy to attract a partner under unfavorable mate

circumstances. This can be one strategy; the topic of interest is what other strategies women can choose and what male norms they will follow in achieving success in matching. In 1987-1990 Buss tried to investigate what was essential in romantic partner choice; he summarized seven studies and his study and found that the highest valued characteristics as kindness and intelligence are similar to both genders. However, other measures show sex differences according to the evolutionary concept. Women prefer men to whom resources are available, or they have the potential to reach them in the near future (such qualities as ambition, industriousness is valued), so these men will be able to feed their women and children. Men highly value women's attractiveness and beauty, which gives them an understanding of reproductive health. Those, considering men's structural power, the beauty standard can be imposed by men. Logically, women who believe there is a shortage of suitable men will try to compete on the marital market and having some clues of what men need, will invest their time and money in enhancing their pre-marital chances (Pedersen, 1991).

C. Components of pre-marital investments

Investments model which was first developed by Rusbult (Rusbult, Agnew, Arriaga, 2011) from social exchange theory (Homans, 1961) and as interdependence theory (Kelley&Thibaut, 1978) establish the connection between a positive effect or relationship satisfaction and commitment, efforts of each relationship participant and intent to maintain these relations. The formula of investment model can be described as following – the commitment to the relationship is more significant if: (1) satisfaction is higher (rewards-costs equal positive number); (2) suitable alternatives are lower; (3) investments in the relationship are more elevated. Rusbult here defines investments as tangible or intangible resources put in the relationship and could not be retrieved if the bonds are ended (Rusbult, 1983). Although the author focuses on investments in an existing relationship, further researchers develop the investment models, including pre-marital investments which suit the investment definition with the reserve that the resources are put in the potential relationship or transitional stage. According to Lafortune (2013) when men are in short supply, women are investing more than men premaritally even when the returns are lower or the costs are higher for them. In connection with this, he observed that investments in developed countries take place in education and financial stability. While in developing countries, pre-marital investments often look like dowries or a bride price. Pedersen (1991), developing the topic of imbalanced sex ratio, provided historical evidence of possible women investments based on American women in 1960 – 1970, when there was a lack of men at the median age of first marriage. Circumstances made women be less "choosy" because of competitive pressure, and there were observed certain events that might be connected with sex imbalance.

1. Women became more economically independent - there was an increase in female education rate and women paid employment. On the one hand, it helped to be independent if women stay alone for long, and on the other hand, there can be seen parallel with groom-price or dowry Lancaster (1989), the woman enters marriage market financially stable and can be more attractive for partner since he does not need to provide her financially.

2. Women became more sexually permissive - the period of sex imbalance overlap with "sexual revolution" time. However, this

time can be part of the sexual liberalization process in society as a whole; it also might be affected by the low sex ratio. Some authors emphasize the fact that it was connected highly with female not male sexual behavior change (Ehrenreich, Hess & Jacobs, 1987)

3. Women enhance their health and appearance - Pedersen (1991) underlines that at this time, dull good looking with cosmetically enhancers did not bring the desired effect of true health. In the 1960s there was another bum – fitness bum; women started to participate actively in fitness, aerobic sports, and even in the Boston Marathon. From the other point, such phenomena as anorexia and bulimia increased in 1970, reflecting women's pressure on looking attractive and, it was also proved by the number of articles with diets and weight loss techniques (Garner et al., 1980).

We assume that in our time, significant investments will take place in terms of appearance and financial stability, but at the same time, we can not exclude other factors from Pedersen's (1991) female pre-marital investment conclusion. Hume & Montgomerie (2001) and Campbell (1995) observed changing male and female behavior in connection with sex ratio state. When men are the majority, women can afford themselves to be pickier in choosing a partner and can purport on men with higher socioeconomic status. Vice versa, when women are of a higher quantity in comparison with men, they feel that within-sex competition is stronger, and they should try to meet higher standards of men without presenting claims on high social status (Watkins et al., 2012). As for the appearance, Watkins et al. (2012), in their research, "Cues to the sex ratio of the local population influence women's preferences for facial symmetry," demonstrated that cues to the sex ratio of the population could influence women preferences in mates appearance. Minority gender will show higher requirements for facial symmetry to the potential mates of majority, whereas this quality will also play a critical role within-sex competition for mates as a competitive advantage (Watkins et al., 2012). In our case, these clues which women have from different information sources can lead to a higher extent with which women take care of their physical attractiveness and invest in their attractiveness.

The evidence of the increasing significance of appearance in the matching process also can be met in the research of Barber (2001) when he reflected on how shortage and increase of the level of facial hair of men associated. It was predicted and proved that in conditions when it is hard to obtain a spouse due to the fact of gender imbalance, men try to emphasize their sexually-selected trait. Barber used the data on British beard fashion (1842-1971), showing that mustaches and facial hair are more frequent when there is a prevalence of men of marriageable age. Regression analyses have shown that facial hair is worn to increase physical attractiveness and as a social status clue by men to improve their marital prospects (Barber, 2001). So the fashion trends can also be associated with the state of society at a specific time, earlier Barber (1998) also found the correlation that slender standard is related to weak marriage opportunities for women and trend for bodily curvaceousness is raised when women opportunities to get married are productive.

We might hesitate that all this research can be applied to Russia, however, the results of the initiative Russian opinion poll (WCIOM-b, 2013) demonstrates a quite similar picture of what is essential for men and women. Russian men first of all value in

Russian women their attractiveness: 37% of males, in second place with 27% states kindness, mutual understanding, and tenderness, at third place with 18% they report intellect, intelligence, education. While for women appearance takes the 9th place only (WCIOM-c, 2013), and the first one goes for reliability, which we can assume is that valuable because it is not that easy to find. We as well take into account that many other factors can influence these valued characters, but this information serves as clues to our suggestions.

III. Method

A. Participants

Our sample consists of not married heterosexual women who are currently looking for a long-term relationship or have boyfriends but do not live together with them. We will control cities, age, education, family status (single, in the relation), emotional state, the period will be restricted, we will have only women from 18 till 35 years old. This age range should not have any men shortage, according to Rosstat. We used a convenient sampling method, and the online survey will be placed in social networks such as Vkontakte, Odnoklassniki and Facebook in women communities about fashion, healthy lifestyle, women sport, diets, personality growth, romantic relationship, etc. and also in the cities of popular Russian magazines.

Primarily, the sample consisted of 83 Russians, 5 (6.0 %) of them were males, and 71 (84.5 %) – were females. Participants ranged in their age from 18 to 38 years ($M = 24.67$, $SD = 3.7$). Concerning their marital status, 1 (1.2 %) of them was married, 13 (15.5%) of them were living with a partner, 28 (33.3%) of them were in a relationship, but without living together with their partner and the rest 34 (40.5 %) were single. 63 (75.0 %) of them were interested in having a long term relationship, 8 (9.5%) were not interested, and 2 (2.4%) did not answer.

Those participants for further analysis were taken into consideration only the responses were given by the respondents who were satisfying the requirements set for the study, i.e., females, not living with their partner or single and interested in having a long term relationship. After the sample was shaped according to the primary requirements, it consisted of 35 Russian females, aged between 18 and 38 ($M = 24.67$, $SD = 3.7$) and interested in finding a partner for a long-term relationship. 28 (33.3%) of them were in a relationship but were not living with their partner, and 34 (40.5%) of them were single. 46 (54.8%) of them reported that they had had a negative love experience, 26 (31 %) of them stated they had not had a negative love experience and 1 (1.2%) reported others. From the participants who reported negative experience in their previous romantic relationships 1 (1.2%) stated that her negative experience influences her attitude towards men very negatively, 9 (10.7%) said that their negative experience influences negatively their attitude towards men, 12 (14.3%) of them stated that the impact is slightly negative, for 16 (19%) of them it influences to some extent and for the rest 8 (9.5%) it was not influential. 22.9% reported they were working, 8.6% of them stated they were studying, and 25.7% said they were studying and working. According to participants' educational level, most of the participants had higher education: 18 people (21.4 %) had obtained a master degree, 16 people (19.0 %) – a bachelor degree, ten people (11.9%) had a specialized education in a particular sphere, one person (1.2 %) – college education, and

1 person (1.2 %) had a Ph.D. The rest of the participants did not indicate their social status and educational level. According to the income range reported 7 participants (8.3 %) claimed that they have enough money to buy food, but they face difficulties buying clothes, 5 participants (6.%) that they have enough money to buy food and clothes, but they face problems buying essential appliances, 13 participants (15.5%) that they can purchase necessary tools, but they face difficulties purchasing a car, 21 participants (25%) refused to answer. 3 Participants (3.6%) The rest of them did not respond. Regarding the town of living, 45 % of the participants lived in Moscow, 2% in Orekhovo- Zuevo, 1% of the participants lived in each Saint Louis, Krasnogorsk, Protvino, MSK, Sergiev Posad and Volgograd. The rest did not indicate their place of residence. However, 18% of them were born in Moscow, 2% in each Novosibirsk, Volgograd, and Tashkent. 22% of them were living in their apartment, 14% of them were renting an apartment, 17% of them were living in another type of housing (i.e., with parents, in a dormitory), and 43% did not indicate an answer.

B. Design and Procedure

After operationalization of the investments, the next stage is to conduct an online survey which has the following structure:

1. Screening questions
2. Participants perception of sex ratio in Russia
3. Pre-marital investments measurement
4. Marriage prospects optimism measurement
5. Personal data collection

After a study conducted, all the respondents who will ask will be debriefed, the ones who are interested will receive final results.

The study was conducted online, and participants were recruited using a convenience sampling technique. Each participant received a link to the survey created using the 1KA survey platform. Respondents were briefly informed about the aims of the study, and the confidentiality policy was explained to them. Upon providing their consent to participate in the study, participants were presented with a task asking them to provide their opinion about the presence of discrepancies between the number of males and females in Russia ready to maintain a long-term relationship. After that, they were asked to describe their ideal partner and were provided with a list of characteristics that women need to comply with in order to attract a partner. Finally, women were presented with the same list of characteristics and were asked to indicate which of those characteristics they try to comply with in order to attract a possible partner.

C. Measure

For the current study, several scales were developed. To investigate the women investments in their appearance and attitudes connected with attracting partners, women's behavior was divided into five categories: actions to improve basic appearance, actions to improve additional characteristics connected with outward appearance, basic behavior to attract a partner, additional actions to attract a partner and actions connected with personal development. All scales were evaluated on a 5-point Likert-type scale, where 1 was "completely unnecessary", 2 – "unnecessary", 3 - "neither necessary, nor unnecessary", 4 – "necessary", 5 – "completely necessary". In the first category (i.e., connected with basic female appearance) women were asked to evaluate what they need to do to develop their basic appearance to attract the ideal partner. Items in this

section included information about looking neatly, feminine, putting natural makeup, wearing suitable clothes. ($\alpha = .847$). The second category included items based on engaging in actions related to additional features of female outlook, like visiting makeup and style specialists, beauty specialists, wearing sexual clothing, being slim, and sexy. Reliability of the scale ($\alpha = .89$). The third category included items connected with the basic behavior women should engage in to attract partners (i.e., to be nice and friendly, caring, to look happy, not to criticize her partner, to give him the freedom and not to be easily assessable) ($\alpha = .92$). The next scale included additional features of behavior like going to clubs and restaurants, and different events interesting for men to meet a partner, being bright to get attention, being manipulative ($\alpha = .72$). The last scale concerned women's development and education (i.e., taking courses to increase their knowledge about men's psychology, being materially independent, being well educated, and being a professional in her job). The reliability of the scale was good ($\alpha = .87$).

Besides, women investments were assessed by measuring the monetary and time spending on care for appearance, body care, visiting places where they could meet their ideal partners, self-education and purchasing clothes on a 5-point Likert-type scale items, where 1 was "I do not spend at all", 2 – "I spend a little", 3 – "I neither spend a lot nor little", 4 – "I spend quite a lot", 5 – "I spend a lot".

The presence of men shortage stereotype among Russian women was assessed by five items illustrating the difference in the ratio between men and women in general in Russia, men and women ready for a serious relationship in Russia, in the place they live in, and among people of their age ($\alpha = .64$).

IV. Results

A. Qualitative data

The questionnaire included a qualitative part. Respondents were asked to describe their perfect man and afterward asked, which actions women have to take to attract this man. This question was used as a control one; we needed to check whether the partner portrait is influencing female pre-marital investments. This provided us with fruitful observations:

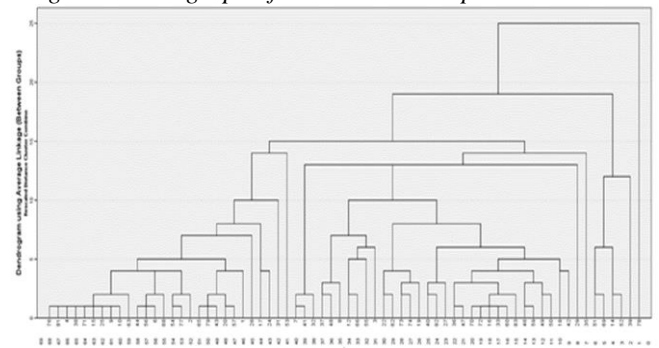
- There was none, even though it was expected, the tendency for females to comply with qualities, they are expecting from a perfect man. For example, women who state "athletic" as their preferred quality for an ideal man, sometimes do and sometimes do not consider women to be obliged to be athletic themselves. They also sometimes do and sometimes do not engage in sports activities themselves, so there was no dependency found in this respect. This also applies to other qualities (e.g., "handsome", "polite", etc.)
- However, women, who value moral and intellectual qualities in men (e.g. they describe their perfect man as a tender, responsible and intelligent person) also tend to engage less into investments in their appearance (e.g., they go less to manicure salons), i.e., when there are no expectations from man's presence, there are also none from woman's one.
- It was also interesting that women with more detailed man descriptions often have more certain expectations

from a female role (e.g., one-word report is accompanied with a 1-2 scores ("absolutely not necessary") questions where it is stated that woman should hold specific characteristics (e.g., be beautiful or athletic) and vice versa – many-word descriptions are accompanied with higher scores there). We can deduce that women who are more conscious about their ideal partner are also more conscious about the needed actions they have to do themselves.

B. Quantitative data

To test whether women who believe in men shortage in Russia invest more in themselves that women who do not think so, we decided to conduct a cluster analysis. As cluster analysis is an explorative analysis that tries to identify structures within the data and seeks to identify homogenous groups of participants, we decided to check if there were designated groups of respondents that were statistically significant and if the stereotype belief significantly discriminated between the groups. For this purpose, firstly, we conducted a hierarchical cluster analysis to identify the number of clusters present. In Figure 1 is presented the dendrogram of the hierarchical procedure results and shows graphically how the clusters are combined at each step of the procedure. Therefore, according to the results from the analysis two main groups of females were indicated. As can be seen on the graph, there are a visible gap between the horizontal (in this image vertical) axes.

Figure 1. Tree graph of the hierarchical procedure results



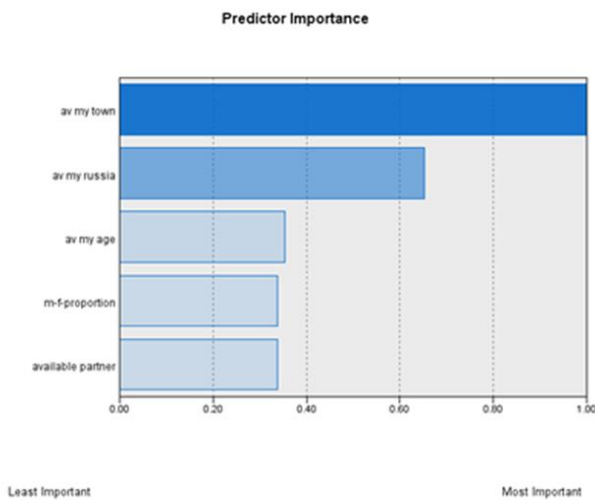
Further, we conducted a two-step cluster analysis to investigate cluster membership characteristics. The two clusters were found based on the five input features selected (i.e., the items measuring men shortage stereotype belief). The cluster quality chart indicated that the overall model quality is fair. As presented in Figure 2, 52.9% of the records were assigned to the first cluster and 47.1% - to the second one, where the ratio of sizes was 1.2. Moreover, group means suggested that the clusters are well separated. Women in cluster 1 were sharing the belief that the number of single men and women in their place of residence in Russia in general and at their age are equal. The second cluster consisted of women, who believed that there were less available men than women in their place of residence in Russia in general and at their age. According to the results obtained there were no significant differences in the women beliefs about the proportion of the single men and women suitable for a relationship and disproportions between males and females in general as the interval between the group means was not too large and the response distribution held similar general patterns (see Figure 2).

Figure 2. Cluster sizes and cluster mean scores

Cluster	Percent (values)	Percent (values)	Single men and women in my town (M)	Single men and women in Russia (M)	Single men and women at my age (M)	Single men and women proportion (M)	Single men and women suitable (M)
1	47.1	32	3.03	2.78	2.94	1.66	2.56
2	52.9	36	1.81	1.72	2.11	1.03	1.86

Moreover, predictor importance showed graph showed that that the most significant predictor of cluster differentiation was the belief about the number of single men and women proportion in participants' place of residence followed by the same percentage in Russia in general. The rest of the items used to define the cluster, i.e., beliefs about the proportion of males and females among Russian population, about the percentage of females and males suitable for long- term relationship and males and females at the respondent's age, were also crucial for clustering, but to a lesser extent and their importance had similar levels. The results are presented in Figure 3.

Figure 3. Predictor importance



Besides, we wanted to investigate what are the females' investments in their appearance in order to attract partners in each cluster. Therefore, we included the items measuring each type of investment (i.e. basic appearance, extensive appearance, basic behavior, extensive behavior, and personal development) in the analysis as evaluation fields. Examining separately each group of appearance indicators, we observed interesting patterns of responses. The results showed that the group of females who believed in men shortage reported their engagement in actions to improve their outward appearance and behavior, both basic and extensive, and personal development initiatives in the response range higher than the mean for each of the items. (see Figures 4, 5, 6, 7 and 8). Moreover, they reported their time and money

spending in similar patterns, as shown respectively in Figures 9 and 10). Contrariwise, women who believed that females and males among Russian society hold equal proportion had more diverse response ranges. However, an interesting finding appeared to be the reported demonstration of a high educational level among women who believed that men are numerically less than women in Russia. The ratings of the item were around the mean score but less than one standard deviation above.

Figure 4. Personal Development Cluster Comparison

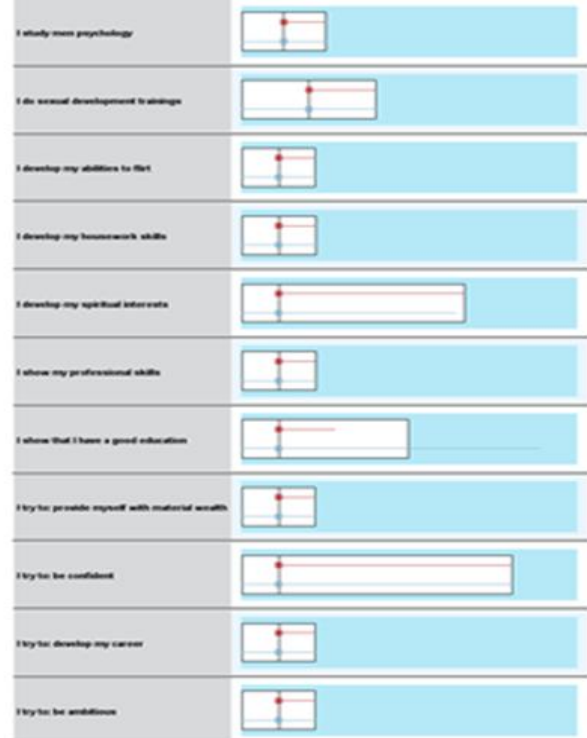


Figure 5. Basic Appearance Cluster Comparison

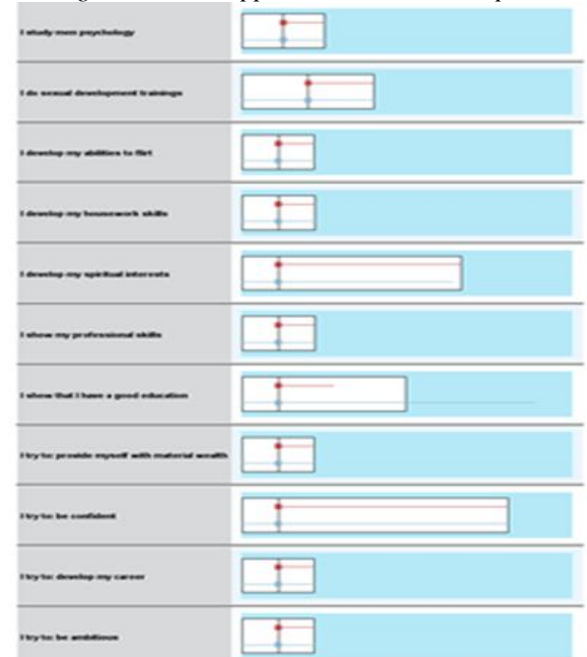


Figure 6. Extensive Appearance Cluster Comparison

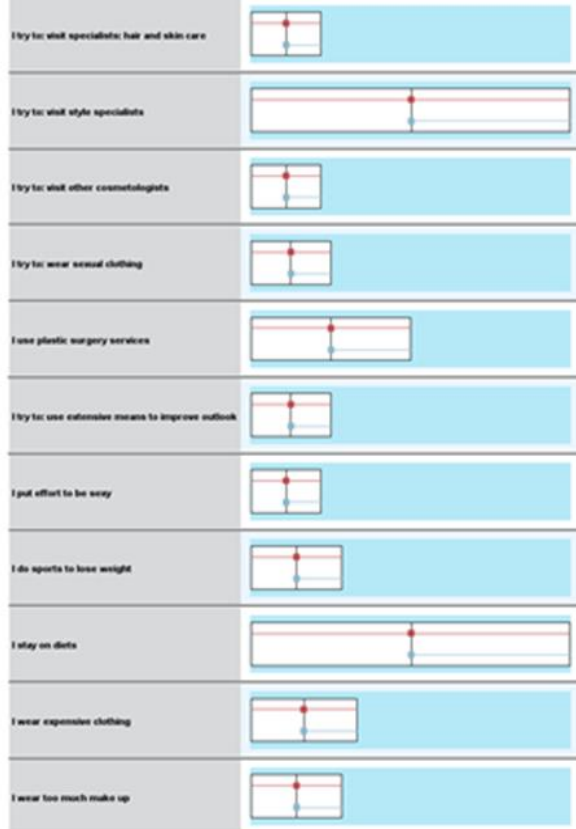


Figure 7. Basic Behaviour Cluster Comparison

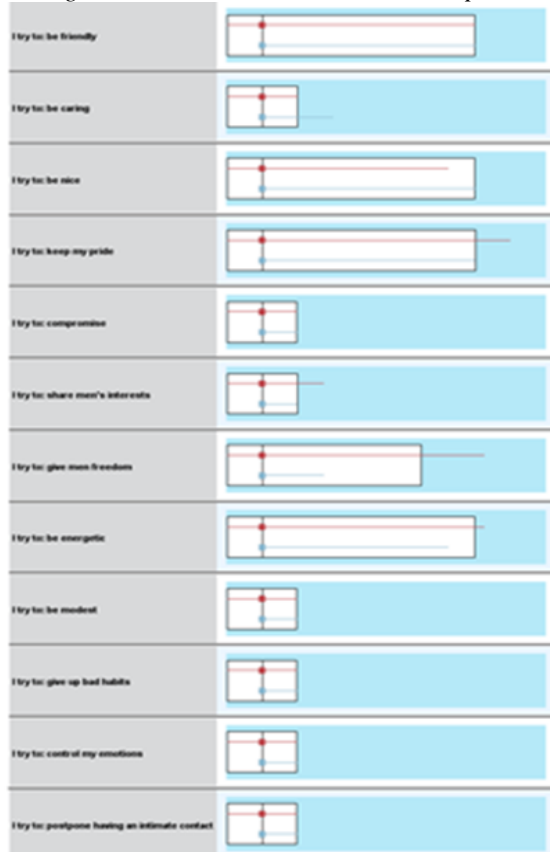


Figure 8. Extensive Behaviour Cluster Comparison

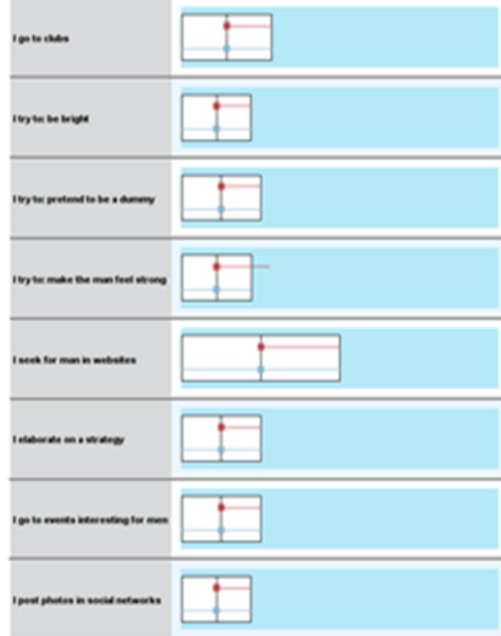


Figure 9. Monetary investments Cluster Comparison

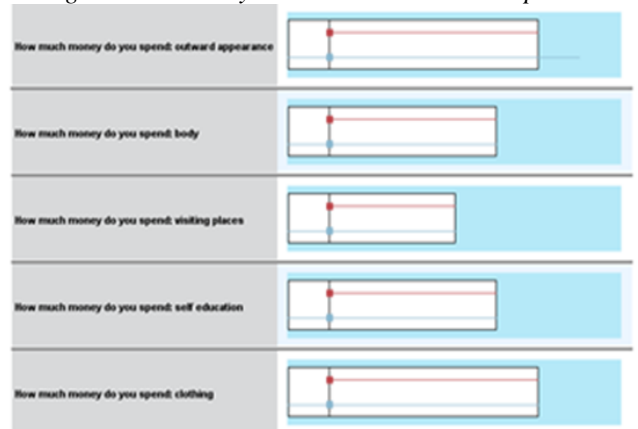
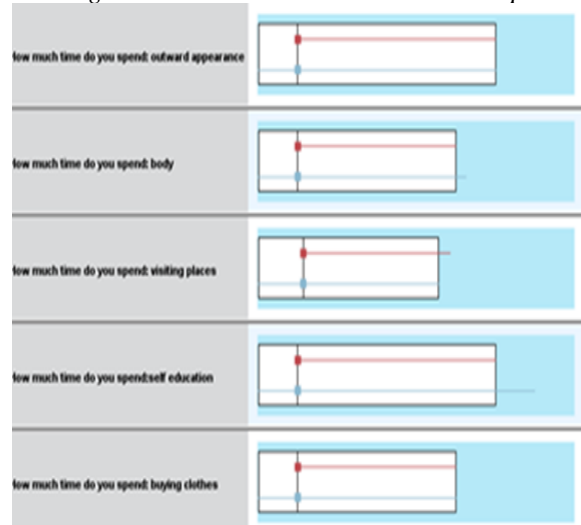


Figure 10. Time investments Cluster Comparison



C. Summary

We provided evidence of the existence of men shortage stereotype in Russia and discovered that this stereotype could be applied to the qualitative problem – the belief of lack of suitable men, not just any men. Unlike previous studies, we focused on studying how the belief of men shortage can influence women's behavior and develop theoretical grounding, which explained the probable women strategies. Our extensive analyses of possible premarital investments opened a broader perspective of the reports moving from taking into account just material part of finances. The novelty of our research as well is that the Russian marriage market was not studied broadly yet, and there is little information on the real influence of imbalanced sex ratio on Russian society in post-war time, however, in American psychological literature, it is mentioned as an example of imbalanced sex ratio. The results of the theoretical base have already provided conclusions that are similar to the effects of the Russian survey (WCIOM-b, 2013), that men in Russia also value women's attractiveness in the first place.

Developing the list of premarital investments among Russian women has an essential impact on studying gender problems in Russia in particular and gender problems overall in the world. Measuring marriage prospects' optimism, we move closer to the issues of Russian women's mental health and mental disorders as bulimia and anorexia. Already now, practical value in this research can be in guidelines for psychologists and psychotherapist who work with women to be able to understand with what can be associated mania to be slimmer (which cause dangerous disease – anorexia), constant willingness to improve appearance even by radical methods such as plastic surgery or expensive cosmetic procedures which supply this industry with enormous amount of money. We also plan to publish the results of the study in public accessible open resources for non-scientists audiences to educate women about the current situation with men's availability in Russia and making them more conscious about pre-marital investments they do. This study should find its development in such crucial questions as whether there is real shortage of suitable men in Russia, considering the fact of women education and career development; satisfaction and investments of marriage from women; existence of men shortage stereotype among men and understanding of whether they use their dyadic power and to what circumstances in marriage it can lead.

V. CONCLUSION

Many facts which were applied in this work reflect the problem from the demographic view, and in this case, we can't be sure that the so-called "marriage squeeze" did not apply to our conclusion that female-biased sex ratio starts from 35 years old in Russia. This ratio reflects the proportion of males to females within a specified age range but does not take into account the prevailing trend for couples to be described by an older male and a younger female (Udry et al, 1971) and the fact that in most cases marital prospects for women declines as they grow older (Blau, 1964). However, assuming that WCIOM surveys sample made from respondents starting with 18 years old, we believe that this stereotype exists even among very young people who should not feel any "marriage squeeze" yet.

This was confirmed in our study, Results showed that the belief

in the stereotype of men shortage exists currently in Russia. The belief was held by our sample of unmarried ladies who were currently not living with any partner and in search of an appropriate male to enter into a relationship with.

There is also one fact that was taken into consideration; Sprecher (1986) found that females usually reported investing more than men in relationships and men overall consider their investments more positively. However, regarding the fact that we do not have a comparison with men and we compared women who believed stereotype with women who did not believe the stereotype, to make our results more objective. We compared these two groups of women and found that among these two groups, the women who thought the stereotype made more investments in themselves than women who did not have that belief.

Considering our measurement of the belief in the stereotype's influence on women's premarital investments, we included in our survey items that measured the investments the women made in their primary and extended appearance, personal development, and basic and extended behavior. The results suggest that the women who believed in men shortage engaged in higher levels of investments in the items than the women who did not find in the shortage. This is consistent by extension with Emerson's (1972) theory that suggests that power resides with the actor on whom others depend. Therefore women who believe that appropriate men are in short supply will increase their "supply power" by increasing their investments in themselves (physical beauty, personal behavior) to attract suitable men. This was the case with our respondents who believed in the shortage. They had higher investments compared to mean investments of the women who did not think the shortage stereotype.

In conclusion, the belief that there is a shortage in the supply of appropriate men among women exists currently in Russia. This belief encourages women to invest in themselves concerning their physical appearance, personal behavior as well as all other aspects they believe will increase their chances of making them attractive to an appropriate man, hence improving their chances of securing for themselves the fit man.

One hindrance to the broad generalization of these results to the whole Russian population is the limited nature of our sample size. The sample size is small to warrant a generalization. Also, our sampling technique, convenience sampling, and snowballing have the possibility of biasing our sample. It is recommended for future studies to increase the sample size and use more robust sampling techniques. These approaches will increase the statistical power of results and also help with the generalizability of the study results.

Furthermore, other studies may explore cross-cultural differences by sampling women from two or more cultures to ascertain whether the belief in this stereotype and its concomitant levels of premarital investments exists among women of other cultures.

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