The Social Sciences 11 (15): 3707-3711, 2016
ISSN: 1818-5800

The Actual View of Russian and German Students on Innovations, Economic Growth and Welfare

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Abstract: The relevance of the investigated problem lies in the increasing role of innovation as a factor of welfare growth and sustainability of socio-economic development in each country. The purpose of the study is to describe the current state of significant economic and social concepts in the associative respect. The leading method used in the study of this problem was an associative experiment in order to reveal free associations to the concepts of "innovation", "growth" and "welfare"of Russian and German students. This article introduces and discusses the results of the conducted cross-cultural associative experiment. The "innovation", "economic growth" and "welfare" concepts have a wide range of associations given by the respondents. Within the associative field there are core associations, typical for 22.5-56.5% of the respondents and the side associations (from 64-70 of lexical units). The study makes a contribution to studying language and mental representations of economic and social concepts and can be useful for teaching sociology, cultural science and concept studies.

Key words: Association, representation, innovation, economic growth, welfare

INTRODUCTION

The relevance of the research subject is determined by the increasing role of innovations as a factor of economic growth and welfare and the stability of the socio-economic development. Modern world is implementing the theory of national innovation systems.

Innovation is understood not only as a goal and a result of economic activities, providing economic growth and consequently the welfare and the prosperity of a society but also as an element that sets the scope of behavior of an individual and groups of people in business.

Despite great efforts the innovations in Russia are generally non-systematic due to the lack of mutual understanding among theorists and practitioners on the point of the role that innovations play in the process of transformation and modernization. The way of development from a planned economy to a market economy was not easy. In Germany the situation looks different. "Economic growth and welfare: through innovation and education" that was the name of the report made by the working group from the North Rhine-Westphalia Land which made the forecast of the possible state development of the Federal land in 2025. It includes three most essential modern categories, such as "growth", "innovation", "education" that can be combined in the following scheme.

Figure 1 shows that education indirectly provides innovation and innovation creates economic growth. Economic growth is, in its turn, a prerequisite for welfare. Thus, the foundation is based on education. Education and human capital are the most essential conditions for innovation, economic growth and welfare.

These theoretical foundations have contributed to the involvement of Russian and German students into empirical research. What notion do contemporary students have of innovation, economic growth and welfare? What is the scale of associative level in their minds? The study aimed at description of associative notions of innovation, economic growth and welfare that Russian and German students have.

When making associations which is in the process of relating an object (the stimulus) with the first word to come to one's mind (reaction), it is important to consider two factors: firstly, the personal experience of a participant of experiment and secondly, his (her) linguistic and social experience (Pautova, 2007).

The association study and the implementation of associative methods have a long tradition in psychology and linguistics (Abramov, 2001; Gorodetskaya, 2002; Goroshko, 2001; Martinovich, 1990; Morozova, 2001; Ivanova, 2013; Mironova, 2011; Bubnova, 2012).

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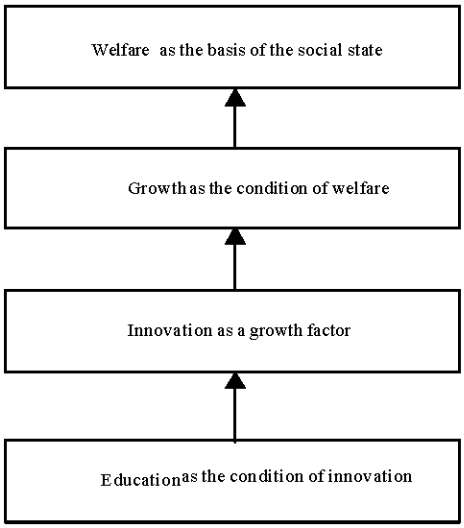

Fig. 1: Education, innovation, growth and welfare as the key concepts of the system

MATERIALS AND METHODS

The 46 students (39 female and 7 male) of Jena University named after Friedrich Schiller (Friedrich-Schiller-Universität Jena) were enrolled in the "Intercultural business communication" and 120 students (110 female and 10 male) of Kazan (Volga region) Federal University (various specialties) from 18-28 have taken part in the empirical research.

The study was conducted within the framework of the association experiment a method to identify an individual's associative links that were formed on the basis of life experience, recorded in memory and can be updated (verbalized).

An important problem of this method lies in the age characteristics of the respondents. An associative experiment has age limits. Of course, this method is used by psychologists and linguists to work with children but traditionally students of universities and colleges aged from 17-25 years are involved in the study of the foundations of conceptual interpretation because the tongue of incentives is the mother tongue for them. Generally, by this age the assimilation of vocabulary and formation of linguistic skills are almost completed. Psycholinguistics emphasize that the majority of people save these properties relatively stable throughout life (Belyanin, 2002). The task for the German and Russian participants in this study was the following: "What associations do the concepts of "innovation", "growth", "welfare" bring to you? Write 5 words-associations to each concept. Don't hesitate long. Thank you very much for your assistance."

The number of the requested answers (5) is due to limited capacity of short-term memory (6±1 units, in our case words or phrases). This capacity depends on many parameters; among other things are age, mental abilities and etc.

When analyzing the obtained associations to the concepts "innovation", "growth", "welfare" their frequency was taken into account. Most frequently used responses form the core of an associative field, they are called cultural-specific; less typical ones are called idiosyncratic (Pautova, 2007). Single associations are individual and fill the periphery of the field. Words-associations are divided into four associative layers (A-D). A-Layer forms associations typical for over 70% of respondents. Layer B provides associations equal to 51-70% of those who took part in the survey. Layers A and B form the core of the associative field. Layer C equals to 31-50% and layer D is equal to 11-30% of the respondents who had demonstrated certain associations. One more layer can be defined (0-10%). Layer E is the periphery of the associative field and contains rare and separate (individual) responses-associations. In the research, we decided to use this way of presenting the empirical results of free associations.

RESULTS AND DISCUSSION

Let us consider the most essential results, such as the associations of German students with the concept of "innovation". All in all, 103 different associations to this concept were given.

About the 24 associations are represented more than once. The 69 associations are individual ones and form the periphery of the associative field. Almost a third of the respondents associate the "innovation" with "new/novelty", this association is the core of the associative field. Such associations as "progress", "invention", "idea/ideas" and "development" are also the core associations. The main results of the research are provided in the Table 1.

The following associations form the periphery of the concept of "innovation": dynamics, natural science, competition, wealth, ability, spirit of invention, event, culture, music, wheel, computer, self-initiative, Economics, modernization, environment, adaptation, genius, the enterprise Foundation, readiness to risk, risk, ability to get, create, market entry, improvement of product and processes, unlimited, help, evolution, professional

Table1: Associations to the concept "innovation" (the German group of respondents)

Words-associations	No. of respondents	Ratio of the respondents who gave this association to the total number of respondents (%)	Layer
new/ novelty	17	36.9	C
progress,	14	30.4	D
discovery	9	19.5	D
idea/ideas	9	19.5	D
development	6	13	D
study/research,	5	10.8	E
updating	5	0.8	E
technique	5	10.8	E
science	5	10.8	E
creativity	4	8.6	E
Future	4	86	E
change/ transformation	3	6.5	E
steam engine	3	6 5	E
the news	3	6.5	E
car/cars	2	4.3	E
innovative	2	4.3	E
Success	2	4.3	E
relief/life	2	4.3	E
1modernization	2	4.3	E
Ipad	2	4.3	E
modern	2	4.3	E
technology	2	4.3	E
Enterprise/business/ company	2	43	E
Improvement	2	43	0

Table 2: Associations to the concept "welfare" (the German group of respondents)

Words-associations	No. of respondents	Ratio of the respondents who gave this association to the total number of respondents (%)	Layer
Money	26	56.5	B
Wealth	11	23.9	D
Carelessness/ no worries	11	23.9	D
House /nice house	8	17.3	D
Job	6	13	D
Health	6	13	D
Luxury	6	13	D
Confidence	6	13	D
Poverty	4	8.6	E
Family	4	8.6	E
Happiness	4	8.6	E
Car	3	6.5	E
Freedom	3	6.5	E
Friend/friends	3	6.5	E
Excess	3	6.5	E
Apartment	3	6.5	E
Purpose/objectives	3	6.5	E
Contentment	3	6.5	E
Germany	2	4.3	E
Capitalism	2	4.3	E
Material	2	4.3	E
Nutrition/enough food	2	4.3	E
Envy	2	4.3	E
Not the most important	2	4.3	E
Privilege	2	4.3	E
Self-realization	2	4.3	E
Economize	2	4.3	E
Status	2	4.3	E
Independence	2	4.3	E

development, achievement, discovery, profit, patent, patent application, knowledge, know-how, Internet,

Table 3: Associations to the concept "economic growth" (Russian group of respondents)

Words-associations	No. of respondents	Ratio of the respondents who gave this association to the total number of respondents (%)	Layer
Money	27	22.50	D
Profit	26	21.66	D
Development	20	16.66	D
Income	19	15.83	D
Welfare/welfare	12	10.00	E
increase/growth	11	9.16	E
Chart graph	9	7.50	E
Raising the standard of iving/improving living Conditions	9	7.50	E
Progress	7	5.83	E
Job	7	5.83	E
Welfare	6	5.00	E
Wealth	6	5.00	E
Wage/salary	6	5.00	E
Success	6	5.00	E
Business	5	4.16	E
Investment/investment	5	4.16	E
Economy	5	4.16	E
Happiness	5	4.16	E
Capital	5	4.16	E
Opportunities	4	3 33	E
Innovation	4	3.33	E
Career	4	3.33	E

industry, activity, process, deterioration, plagiarism, engine, call. Thus, most of the associations have economic and social orientation.

Associations of German students with the concept of "welfare" are of great interest. Totally 104 different associations have been mentioned, 29 of them were submitted more than once. About 70 individual associations form the associative periphery of the field. The most frequent associative view of the "'welfare'" is connected with "'money"': it is "'money"' that forms the core of the associative field of the concept "welfare". "Wealth", "carefree", "home" also refer to the core foundation. The survey results are presented in Table 2.

Associations listed in the table 2 can refer to "material and property" ("money", "wealth", "home", "luxury", "car", "surplus", "apartment"), "inner feeling" ("carelessness", "health", "confidence", "happiness", "freedom", "contentment", "envy", "independence"), "private life" ("family", "friends") and "professional life" ("work", "goal/objectives", "self-development").

The associations in the table can be divided into the following categories: "financial and property"' ("'money", "wealth", "home", "luxury", "car", "abundance", "flat"), the "inner feeling" ("carefree", "health", "confidence", "happiness" , "freedom", "satisfaction", "envy", "independence"), "private life" ("family", "friends") and "professional life" ("work", "target /targets", "self-development").

The periphery of the concept "welfare" is also rich in associations: conflict, cleanliness, free time, no lack, injustice, alienation, prestige, economic growth, inequality, democracy, socialism, scissors between rich and poor, education, advantage, furniture, shoes, stress, poverty, pride, desire, boredom, consumption, charity events, love, diversity, grievances, wages, water, electricity, travel, materialism, power, profession, manners, society, West, success, insurance, garden, disintegration of values, change of perspective, social recognition, support.

Russian students associations with the concept of "economic growth" are of scientific interest. Totally 118 associations were given, 64 of them are individual ones and form the periphery of the associative field. The core of the field consists of such concepts as "money", "profit", "revenue". Associations "development", "welfare", "improving living standards" are also frequently met and are given in Table 3.

We can distinguish the following categories among the above associations: "financial and property" ("money", "profit", "wealth", "income", "wages", "welfare"), "economy" ("development", "improving living conditions", "investment", "progress", "business"), "inner feeling" ("success", "happiness", "independence", "joy", "freedom") and "professional life" ("work", "career", "objective", "opportunity").

The periphery of the concept of "economic growth" includes: capital, state, interest, desire, price, GDP, income, economic losses, ideas, knowledge, inflation, competitiveness, competition, crisis, science, experience, professional development, production, prosperity, market, demand, stability, country, forward, Bank, time, Japan, Germany, Europe, change, quality, people, jobs, reliability, independence, absoluteness, money, care, currency appreciation, increased productivity, policy, demand, supply, company, the joy, risk, freedom, international relations, leap, media, power, position, high status, pace, difficulty, resources, confidence, strengthening, improvement of goods, intelligence, ability, reduction of unemployment, services, finances, goals, pricing, evolution.

In general, depending on the purpose of the research association tests can reveal not only the individual characteristics of the respondents but also socio-cultural differences between groups of people. On this basis, associative methods are used in comparative-cultural area. A survey on associative views of the war in Kosovo was conducted among Russian and American students (Gorodetskaya, 2002). An important result is that the Russian students were more unanimous that is, identical or similar association which was not found in the US group of respondents but have been reported in most of the surveyed Russians. This result has been proved by cultural diversity of the American students in general and also by bigger tendency of the American society to individualism expression, among other things at perception of events.

Pautova (2007) analyzed the associations to the concept "'stability"'. Both the Ukrainian and Russian students took part in the comparative research. Associative experiment made it possible to identify associations that are invariant in close cultures (Ukrainian and Russian). The survey embraced 296 256 Russian and Ukrainian students. It was found out that the carriers of these cultures have the similar core of associative fields. The actual situation in different spheres of life (economic, political, national) and living conditions of a given country bring qualitative changes in the peripheral frames. In the period of intensive political and economic transformations in Ukraine the concept of "stability" has acquired some political meaning. The same publication cited the results of another study, again with participation of the Ukrainian and Russian students. The study was concerned with associations to the concept ''perestroyka"'. Along with the associations which have positive sense the core of the associative field formed responses with negative meaning. While, conceiving and describing the associations to the socio-political concepts it was concluded that many aspects depends on the current situation in a given country.

What makes this research different from other studies is the fact that it is focused on associating of socio-economic notions such as "innovation", "welfare", "economic growth". Similar researches have been possibly done but not systematically.

CONCLUSION

The concepts of "innovation", "economic growth" and "prosperity" have caused a wide range of associations with the respondents . The core of the associative fields of these concepts is represented by associations, typical for 22.5-56.5% of those who took part in the survey and the periphery which is filled with a variety of individual notions (from 64-70 of lexical units). Rich periphery of the associative field is explained among other things by the fact that the respondents were not limited by time. It is known that typical answers are given to the associations when the respondents have no time to think while being unlimited in time leads to individual, unusual and idiosyncratic associations.

The research contributes to the study of language and mental representations of the economic and social concepts and may be useful for teaching Sociology, Cultural Science and concept studies.

ACKNOWLEDGEMENTS

The research is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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