FEAR OF THE FUTURE AND FUTUROLOGICAL ORIENTATIONS OF STUDENTS

The future is not a gift, iit is an achievement.

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Abstract

In this research the author starts from the two hyptheses that rapid changes and contemporary reality bring fear of the future to which not even students are immune, and that among students we can recognize different value orientations in relation to the past, present and future. From a sample of 189 students of Pedagogy and Teacher Education Department, it is observed that over 80% of them show certain degree of fear, whereas a factor analysis has presented that the fear is latently generated by three components: contemplation of the future, global processes and taking over the responsibility for one's own long-term goals.

Keywords: fear of the future, future orientations, academic achievements, changes

Each man is a master of his own destiny

Nowadays, science undoubtedly confirms the popular saying: 'Each man is a master of his own happiness'. We could classify papers that confirm this thesis into one teaching, which I will here refer to as MOD (Master of Destiny). The essence of this teaching is in a thesis that science indisputably proves that living creatures develop through history, and that the man, in contrast to other beings, is aware of his development and therefore can use this awareness to create his future and his progress (Hancock, 2009; Holland, 1992; Klein, 2007; Stewart, 2000; Toffler, 1970, 1981). Holland (1992) supports the thesis that man has the ability of prediction that enables him to plan the future. This thesis is later elaborated by John Stewart and justified into three levels of creating the future: 1) linear modeling, 2) systematic modeling and 3) evolutionary modeling. "The third level, evolutionary modelling, is able to model the evolution of extremely complex systems over large scales of space and time. In particular, it can model the large-scale evolutionary processes that have formed us, and that will determine the future evolutionary success of humanity" (Stewart, 2000, p 94). Planning implies the selection of goals which we are able to achieve and that can also satisfy our needs and values (Klein, 2007). Peter Hancock's thesis, that the evolution of humans and machines is becoming similar, that natural and artificial intelligence will merge, is peculiarly interesting. (Hancock, 2009). I have no intention to go that far in this paper. This research is dedicated to the students' way of experiencing the future. Two questions are especially interesting: Do students prefer the past, present or the future? Is there a fear of the future, and if there is, what does it consist of?

Fear of changes

Employment does not solve the mere existential question of a young man. It also means participating in the social division of labor or a social life. Therefore, this participation has a psychological significance. "That is why, for many people, a job is crucial psychologically, over and above the paycheck" (Toffler, 1981, p 373). Modern technology deprives people of employment and reduces their perspective of participating in the social division of labor. Besides, machines and sophisticated technology constantly face people with a demand for improving and learning. Peter Hancock points out that "…we have a collective and seemingly pathological fear of the machine as monster" (2009, p 61). Only a minority of young people sees this fear as a challenge and swims successfully among the waves of modern cognitions and technological innovations, while the majority remains at the margins of these trends, isolated and excluded. In this research we are concerned with the number of young people who do not feel the fear of modern technological and social changes, and the number of those who express fear of these changes.

After this and other quotes, we set a series of claims for students, to which they answered using the Likert scale. One of these claims says, *I like being idle, but I am not interested in 'destroying the system'*. In the test, there were also items that measured fear directly, as well as the tendency of young people either to react responsibly or to shift the responsibility to others. The main goal was to learn if the fear of changes existed and whether young people value the reality and the

environment they live in, as well as how do they see theirs and the future of their community.

Two basic hypotheses represent the starting point in this research. The first: students of Pedagogy and Teacher Education Department express a dosage of fear related to their perception of the future, especially in the context of changes that rapidly arrive. The second: students orient differently towards the past, the present and the future. Some of them are focused on the present, some of them on the future, and the majority is primarily not interested in the past.

Method

Initial hypotheses

It is evident that modern civilization brings innovations that change human lives daily (Toffler, 1981). How do young people, awaiting the future, feel, flooded with the present changes that accelerate the flow of time and happen rapidly in front of their eyes? Are they afraid or do they feel comfortable with this? If we can distinguish young people who are afraid of these changes and others, who see these changes as challenges and enjoy in seizing them, than we can learn what motivates both of these groups. We can also transfer experiences from the successful ones to the others, and we can reduce the fears of the frightened ones and use these experiences to control their problems and worries.

Two hypotheses set in this research contribute to the answer, but do not solve the problem completely: do students, who were recorded, think they are the masters of their destiny? In other words, will the answers to the posed questions in research hypotheses contribute to the teaching that each person is a master of his own destiny?

Research design

For methodologically correct answers, we needed high-grade instruments that measure two key variables: fear of the future and preferences of orientation to the past, present and the future. Modern literature does not offer such instruments, therefore it was necessary to construct and calibrate: a) futurological orientation of estimating (FOE-scaler) and b) fear of the future (FF-scaler). Each student voluntarily gave answers to the posed questions circling his estimates of the tester's claims in the answering sheet.

All data were processed using the statistical program SPSS 15 Statistica for Windows. Various variables are crossed in this survey.

Instruments

In this research two instruments and one protocol were used: a) FOE-scaler (Futurological Orientation of Estimating), b) FF-scaler (Fear of the Future) and c) Protocol for collecting data about students.

FOE-scaler (Futurological Orientation of Estimating) has 28 items and it measures the students' inclination toward the past, the present and the future. It is based on two theoretical starting points: on the instrument 'A study of value' (Allport, Vernon and Lindzey, 1960) and Spranger typology of value (Spranger, 1922).

Table 1
Congruences and differences in the students' inclination toward the past, the present and the future

Inclination	Past	Present	Future
Past	–	297.37***	533.88***
Present	–.43**	–	649.31***
Future	.12*	–.68**	–

Note: Values under the diagonal represent Kendall's tau (τ); Values above the diagonal represent Pearson's chi-square (χ^2); * Correlation significant on level .05; ** Correlation significant on level .01; *** Correlation significant on level .001.

FF-scaler (Fear of the Future) is another instrument constructed for this research. It has 32 items in its initial form and 17 in its final form. It measures fear of the future. Theoretical starting point for this instrument is Alvin Toffler's thesis (1970, 1981) that changes arrive rapidly and that people are afraid of them. The instrument is constructed by selecting quotes about the latest scientific discoveries. Afterwards, claims were set for the examinees to which they answered with Likert's scale, from 1 = *I do not agree at all* to 5 = *I completely agree*. Calibrating of the first version of the instrument with 32 items gave a high Cronbach-alpha coefficient ($a = .79$), and after the factorization and decreasing the number of the items to 17, the Cronbach-alpha increased to $a = .82$. It is especially valuable that factorization of the fear of the future singled out three components that indicated the structure of the fear of the future: 1) meta-future or thinking about the future, 2) global processes and 3) goals–taking responsibility.

Sample

The sample included 200 students of the Pedagogy and Teacher Education Department, living in the region of Banja Luka. After fulfilling the instruments, 11 students were discarded because of incomplete answers, therefore, 189 students remained in the sample for processing, 14 male and 175 female. Students were between 19 and 24 years old.

Results

We registered the fear of the future in range from 1 = *fear of the future does not exist* to 5 = *absolute fear of the future*. The range of variation of the average scores was between 1.24 and 3.88, which meant that it was possible to register weak fear and the fear with the scale value *predominantly*. Inside that range I classified three

groups of students: the ones who are slightly afraid of the future, the ones who are normally afraid and the ones who are unusually afraid of the future (Table 2).

Table 2
Three categories of the fear the future

Afraid of the future	Criterion	N	%	M	SD
Slightly	≤ 2,01	30	15.87	1.80	.20
Normally	2,02–3,06	134	70.90	2.54	.29
Strong	≥ 3,07	25	13.23	3.43	.23
T o t a l		189	100	2.54	.52

Of all the 17 questions, that we processed after the second calibration of fear of the future, we found a certain number of students who answered to some questions using the scale item 5, which meant that they are strongly afraid of the future. Still, none of them had a scale value of 5 as the average. In Table 2, all average scores are entered and we can conclude that more than 13% of the students are afraid more than the average of the future according to the FF-scaler. This group of students should be subjected to advisory interviews and therapeutic treatment since we can assume that this kind of fear can have a damaging influence on them in the future.

After learning that we can register fear of the future among students, an interesting question is what is the structure of that fear, in other words, what are students exactly afraid of in the future. We will answer this question by factorization of the fear of the future instrument, since that will help us to find out salience of certain variables grouped in factors according to their importance. After the initial version of the fear of the future, with 32 items, it was subjected to rotation according to Kaiser's criterion, so that the number factors to be taken for processing could be decided. A convenient measure for that is Cattell's test of the scree plot (see more: Suzić, 2007, str. 201), according to which graphically presented factors are cut at the spot to prevent a landslide, vividly said, say to prevent rocks from rolling (Figure 1). Now we are interested in how variances can explain these three factors; 50.49% of variance is explained, which can fulfill the basic criteria of judging the phenomenon that we measure with the instrument. After removing 15 items, which were excluded by the Cattell's test, 17 remaining items were again subjected to rotation, and the Kaiser's varimax test of normalization kept three factors.
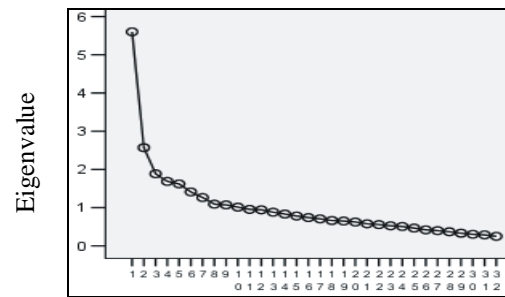

Chart 1
Cattell's test of landslide for the extraction of factors or number of components

The first ten items in Table 3 represent primary factor that we could refer to as *meta-future* or *thinking about the future*. The second factor, which consists of three items, we could refer to as *global processes*, because fear originates from the process that one cannot control, and they come from a global level. The third factor, which consists of three questions or items, we can refer to as: *one's own goals and taking responsibility*. Each of these factors deserves special comment and analysis, but I will present here a short observation because of the limited space.

Why should students be afraid *to think about the future*? The main reason for this fear is that the changes, which occur rapidly, are out of their control. Modern technology demands permanent studying and specialization without leaving time for relaxation, since there is a danger that a person may become outdated and old-fashioned. New technological solutions, which were in the sphere of science fiction until yesterday, are reality today.

Global processes that bring new discoveries in genetics, new weapons for global destruction, new viruses and diseases as global epidemics and constant battle for money represent another factor that generates students' fear.

Taking responsibility and setting one's own goals represent a challenge for the young people between 19 and 24 years old, as is the case with the sample of students in this research. This is the third factor that generates students' fear, and it is based on planning one's own future, setting long-term goals and taking responsibility for them.

The second hypothesis in this research is that students are oriented differently toward the past, the present and the future. Some of them are inclined to the future, others to the present and the majority of them do not find the past as a primary orientation. Since the FOE-scaler properly distinguishes these three orientations, we are interested in which one of these orientations is the most salient and which one is remotely represented (Table 3).

Table 3
Futurological orientations of students

Category of inclination	f_o	%	f_t	χ^2	p
Past	1	0.53	47.3		
Present	77	40.74	47.3		
Future	43	22.75	47.3		
Undecided	68	35.98	47.3		
Total	189	100		73.50	.001

Most of the students chose the present (40.74%), and each fifth student chose the future (22.75%). It is peculiar that 35.98% of students were undecided because they relate their values primarily to the present and the future or for the past and the future. The most interesting result was that we found only one student who was undoubtedly inclined to the past. Therefore, there exists a difference among the students in their inclination to the present and the future ($\chi^2 = 73.50$ which is, with three levels of freedom, significant on the level .001). This means that we accept the second hypothesis, and the consequences of the cognition are multiple.

Next interesting question is how to do these orientations to the past, the present and the future, affect the students' success in studying. A multiple regression (Figure 2), inform us which one of the three orientations mainly predetermines students' success.

For a graphic presentation of this regression it is best to use AMOS (Bacon et al., 2010), with which we can graphically present the relation of the predictor toward the dependent variable. As we can see on the Figure 2, the orientation of students to the present mainly predetermines the students' success in studying. This influence is not great but it is statistically significant ($\beta = .17$; significant on level .05). This is a new discovery since there is no research until now that deals with the question as to what extent that the students' orientation
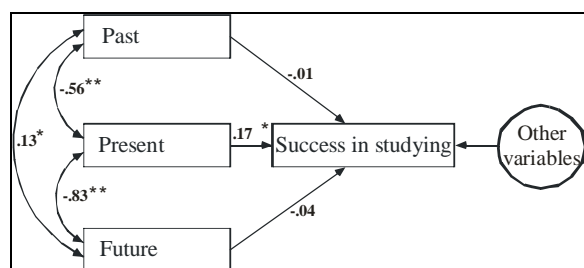

Figure 2
Regression analysis of the influences of futurological orientations to students' success in studying
Note: * Correlations significant on level .05; ** Correlations significant on level .01; On straight arrows beta coefficients are entered.

to the past, the present or the future, affected their academic achievement.

Concluding discussion

In traditional education, it is mostly true, but since we live in a learning civilization of the XXI century, in which a lifelong learning is a precondition for happiness, it becomes clear that the process of learning must be connected to the present and the future of those who learn pupils and students. "Clearly, happiness is best viewed as a process rather than a goal or thing in and of itself" (Hancock, 2009, p 138). Learning and studying should bring joy, not fear and worries. In this research, on the sample of 189 students, the opposite was proven. Our students are more concerned with the future than they are happy about learning and knowledge. The future is ahead of symhedonian civilizations (Suzić, 2008a), but the research has shown that students can be motivated to learn even meaningless contents with joy (Suzić, 2008b). The future already holds outlines of a new school, new way of studying and improving people. Our schools and universities are still more inclined to the past than to the future.

Another issue included in this research is the cognition that young people are not turned toward the past and that past is not primary to them (Table 3). This does not mean a lack of respect for their past. They simply do not connect their goals and aspirations, as well as fears, to the past. This is useful knowledge for those who want to insinuate young people, to win their affection or to convince them to participate in elections. It is questionable to what extent a pedagogy college's programs contain futurological visions, and to what extent they are inclined to traditionalism and the past. This is also a subject for new research because, if it appears that students of pedagogy study more about and for the past than for the future, it would seem as apsurd that, it should be solved immediately.

The most appealing and perhaps the most important secondary discovery of this research is that among orientations to the past, the present and the future, the orientation to the present mainly predetermines the students' academic achievement (Figure 2; $\beta = .17$; significant on level .05). It means that students focus on current obligations and that they do not want ot think about the future or connect their future to daily obligations.

Generally, this paper introduced several new cognitions, precious for social sciences and pedagogical practices, but it has also opened a series of questions that should be solved and explored. Besides, its greatest methodological limitations are size and structure of the sample, which can easily be solved in a repeated research. It is commonly known that a scientific value of a research lies in the possibility of its renewal, so that newly found cognitions can be either confirmed or denied. In principle, research always introduces new problems and phenomena for a new research. Here, I tried to fulfill these exact criteria.

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