



Analysis of the Relation between Perception of the Time Concepts and the Critical Approach of Architectural Students to History; Case Study: Architecture Students of Islamic Azad University of Qazvin*

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ABSTRACT: In the process of time perception, humans continually try to find the link between the past, present, and future periods. This matter becomes more important, when one tries to understand the events and their outcome; both in the daily dialogue of humans and in the critical encounter with history. Truly, how much do the current events affect our reading of the future? Or, to what extent can our expectation from the future change the interpretation of past events? Thinking about such issues further illustrates the importance of the concept of time. This article will answer the question: “What is the relationship between the various types of concept of time in the daily life of the students and the definition that they have achieved in the academic environment?” Our assumption is: “Although the patterns of daily behavior of students can be the same, but the acquired commentary of architecture students to the concept of time is different from each other; due to learning in architecture.” Also, the statistical population in this study is the architecture students, and the architecture students of Qazvin Islamic Azad University (QIAU) have been selected as a sample population. In the process of writing, first, the data collected in a logical reasoning method determine the theoretical framework of the article; and then the research findings are obtained with a survey approach and the questionnaire. Based on the results obtained, although the daily life of architectural students demonstrates the high role of linear conception, the multi-active concept of time has the highest impact on their critical view of architectural narratives, and on the student’s acquired commentary. Such an approach leads students to a complex understanding of historical narratives.

Keywords: Time, Time Concept, Linear Time, Cyclical Time, Multi- active Time.

INTRODUCTION

Time has caused a range of the formation of events throughout history. By dividing time into different shapes, these events are also divided into the past, present, or future periods. The earliest form of time measurement can be seen in the human experience of the movement of the sun and the formation of day and night. “Ice-age

hunters in Europe over 20,000 years ago scratched lines and gouged holes in sticks and bones, possibly counting the days between phases of the moon. Five thousand years ago, Sumerians in the Tigris-Euphrates valley in today’s Iraq had a calendar that divided the year into 30 day months, divided the day into 12 periods, and divided

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these periods into 30 parts” (Anand, 2007, p. 277).

“According to Durkheim, time expresses the rhythm of collective life. It is a category of our thought, which socially originates in the sense that has been abstracted from the collective life of the people” (Subrt, 2001, p. 216). Different types of time perception, each not only root in the collective history of a civilization or society, but also shape their collective behavior. Although the onset of a linear understanding of time can be seen in how the division of the month into a day and day into time has occurred, the effect of this linear behavior can be observed in many societies. “Augustine’s view of time (in *The City of God*) comes from the Hebrew language structure, a structure that immediately rejected the Greek concept of cyclical time. On the contrary, he sees history as moving along a line, with the point of beginning of creation, the middle path, and the end of human sequel. In this way, the Christian view of history as a continuation and path of creation shows a new understanding of contemplating time” (T.Gilderhus, 2009, pp. 17-22). Denis Feeney (a researcher in Latin literature and Roman culture) believes that, unlike The Middle Ages and Christian civilization, ancient Romans did not have any understanding of the features of linear time. “There is, in fact, no Greek or Latin word for “Date”. An ancient date is an “Event”; or, to be more precise, any date is a relationship between two or more events. As inhabitants of the B.C.R. /C.E. grid [that live in a linear time], we simply cannot help thinking of ancient writers as working with dates, which to us are numbers. But they are not connecting numbers; they are connecting significant events and people” (Feeney, 2007, p. 15). A different face of these two civilizations can be found in Far Eastern culture, especially China. Time does not have a linear form any more, and the past will be possible to repeat, and will affect the events of the present. The Yin and Yang cycle symbolizes the perception of Chinese civilization from time to time.

It does not make much difference in the definition of time as the physical nature of it, or in introducing it as a psychological concept; In fact, time is the relationship between man and his peripheral phenomena. Far beyond historical narratives of understanding time, what matters is first of all the form of this perception, and second, its impact on the reading of history.

BACKGROUND OF RESEARCH

In the study of books and researches, attempts to classify the concepts of time can be seen in different forms. Richard Lewis and Otthein Rammstedt -as you study in the theoretical framework- look at the concept of time with a sociological approach and study it in context of human societies.

Fernand Braudel-a French historian- in his book “History and the Social Sciences” with the concept of “longue durée” expresses his critical look at the linear attitude of history / time. “He constructs his model of plural time in terms of three temporalities: The longue durée; cyclical time or the conjuncture, a structural time of intermediate duration; and the event, or more properly the (very) short term” (Tomich, 2011, p. 56). Indeed, Brudell uses this categorization in his historical analysis. Also, Wolfgang Klein -a German linguist- in the book “Time in Language,” defines the basic concepts of time in seven characteristics (See: Klein, 1994, p. 61). He tries to look at the language as a collective identity for its users, and does not summarize it only in the grammar of the language.

RESEARCH METHOD

This research has been done in two steps. First, data are collected with the aim of formulating the theoretical framework of the research with a logical reasoning approach; and the second is a questionnaire that analyzes the statistical population with a survey approach.

The “Purpose” of this research can be described as: “Identifying the student mental model of the time concept, and its impact on the critical thinking in architectural history”. Also, to clarify the Purpose, The “Questions” below will outlook the prospect of this research:

1. How much do the linear, cyclic, and multi-active concepts affect the daily behaviors of architecture students?
2. For students who have at least four years of study experience, how much do the concepts of time perform in the architecture student’s acquired commentary to history?
3. With the aim of examining the role of university education in understanding the concepts of time, what is the relationship between the daily behavior of the architecture students and their acquired commentary in the university environment?

Statistical Population and Sample Population:

The “Statistical community” in this research is architecture students, and students of Qazvin Islamic Azad University (QIAU) are selected as the “Sample Society”. Regarding the high number of architecture students in QIAU, the “Simple probability sample” strategy has been used to measure the sample population. “In probability sample, this principle is observed that all statistical population should have the odds of being elected; the result of this sampling is the ability to generalize the sample to the entire statistical population. ... Also, a simple probability sampling has been chosen based on this principle that the studied population is even



and congruent. For this reason, the researcher can select them after determining their sample size and volume” (Hafez-Nia, 2012, p. 146). The choice of individuals has also been done with systematic method.

Students in the sample population have been selected on the assumption of their homogeneity and uniformity among the all statistical population. Also, the “Cochran’s sample size formula with unknown population size” has been used to compute the size of sample population. Accordingly, with an error value of 0.08%, the sample size is set to 150.

$$Z = 1.96, p = q = 0.5, d = \text{amount of mistake}$$

$$n = \frac{Z^2 pq}{d^2}$$

The students who participated in the survey were from 12 different classrooms and 9 different professors; in this way, the direct effect of teaching on the formation of students’ preconceptions has been reduced.

THEORETICAL FRAMEWORK

“Richard, a social science theorist in the book “When Cultures Collide” during examination of different communities interact with the problem of time, introduces time with three approaches: Linear, Cyclical, and Multi-active” (See: D.Lewis; 2010, p. 53). In his opinion, each of these societies has a different approach to understanding and interpreting the “past, present, and future”. Also, Otthein Rammstedt, a sociologist, in the study of societies, presents four historical types of time perception: “1. Linear awareness of time with a closed future; 2. Linear awareness of time with an open future; 3. Cyclical awareness of time; 4. Awareness of time based on a distinction made between “now” and “not-now”, [or events]” (Subrt, 2001, p. 211).

Table 1. Typology of Time

Richard D. Lewis	1. Linear Time. Linear awareness of time with close or open future.	Otthein Rammstedt
	2. Cyclical Time. Cyclical awareness of time.	
2. Multi- active Time. Awareness of time based on situation.		

“Fundamental conceptions of change remain central to social identity and social concern in the form of interpretations of the past and future and the prescription of rules for living in the present” (C. Carlson, 1978, p. 8). “Interpretation of the present and the past times will give an emotional connection to the community” (Ibid, p. 251). What matters in perception of time is how one

interprets his presence in the interval the “past, present, and future”. Is the past isolated from us, or is it involved in the formation of the present? What connection is between the future and the past?

Linear Time

The linear time -with a closed future or an open future-displays the sequence of the past, present, and future one after the other. In a linear pattern of time “the past is over, but the present you can seize, parcel and package and make it work for you in the immediate future” (D.Lewis, 2010, p. 53). This pivotal and one-sided relationship will affect the past experience in the present; and the present time is also involved in how future comes and its quality. In its logic, this trend will “Display a linear representation of time and action consistent with it” (Ibid, p. 54). In this linear path, any action from the past leads to a reaction in the present and an interpretation consistent with that of the future. Hannah Arendt believes: “The view that everything real must be preceded by a potentiality as one of its causes implicitly denies the future as an authentic tense: the future is nothing but a consequence of the past.” (Helleloid, 2014, p. 231).

Although in a time interval, the circulation of days and months is a representation of a cyclic time, but linear time can be observed; because of the repetition that occurs with a predictable result. “Linear time represents an indefinite repetition of essentially identical and neutralized moments, the expected state of time [even if] at its core can be seen an element that is irreconcilable with the status quo” (Hammer, 2011, p. 201).

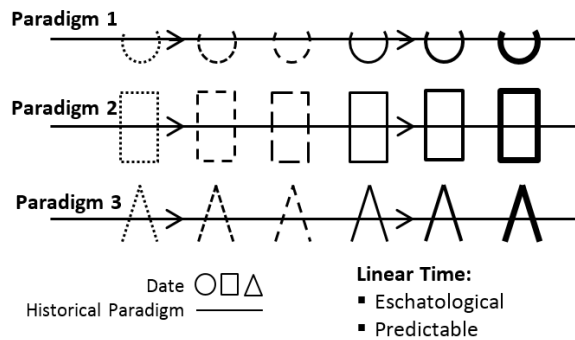


Fig. 1. Linear Time and the Historical Paradigm Problems

In this way, two structural features can be quoted for linear time: The first, there is a linear link between the past, the present, and the future; each one affecting the next. The result of this linear and one-way path can be searched in the future. The second is the predictability of the



result. It should be noted that, “The linear conception has assumed the character of an eschatological interpretation of a social and historical process” (A.Sorokin, 1927, p. 28).

Cyclical Time

Although one can't mention a certain date to begin the formation of the concepts of time, but “Cyclical conception of social change is one of the oldest in the history of social thought” (A.Sorokin, 1927, p. 29). It should be noted that, “Until the second half of the nineteenth century, sociologists naturally ignored the concept of the cycle of changes in society and historical processes. The attitudes of society have changed in recent decades, the eschatological concept of history has become invalid, and we are trying to discover historical attitudes” (Ibid, p. 28).

Circulation of seasons or calendars -to measure time- represents the cycle time. The effect of cycle time can also be seen in the social behavior of humans. In the linear concept, the past cannot be reversed or repeated, while in the cyclical concept of time, the future can become an experience for repeating the past. A university professor who decides to teach a course for several semesters -and uses his experience every time- shows the type of cyclical concept of time. The feature of such a concept is the possibility of return, change, or re-interpretation of the past. People who have a linear look at time “see time passing without decisions being made or actions performed as having been “Wasted”. [Representatives of the cyclical concept] do not see time as racing away unutilized in a linear future, but coming around again in a circle, where the same opportunities, risks and dangers will represent themselves when people are so many days, weeks or months wiser” (D.Lewis, 2010, p. 57). In fact, in this society, the future is not in a linear path or in front of them. “For this reason it is often said individuals in archaic societies did not see the future, but rather shrunk towards it with their backs turned and their faces looking towards the past” (Subrt, 2001, p. 215).

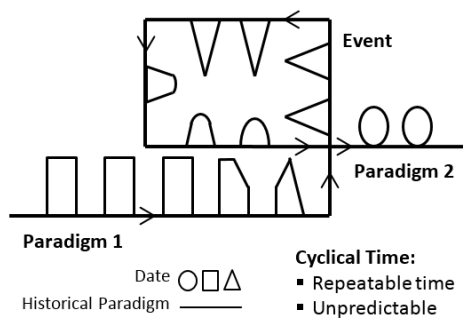


Fig. 2. Cyclical Time and the Historical Paradigm Problems

In describing the characteristics of the cyclical time concept, one must first consider the possibility of looking back. Second, “The fundamental assumption of cyclic [time] models is that a certain flow of events begins to repeat itself” (C.Carlson, 1978, p. 27). The result of this rotation and the look of the past -contrary to the linear concept- should not be predictable. What rejects this predicate is the event that changes its linear course and circles around it in the past.

Multi-active Time

“The past is permanently rewritten. The present has ceased to be a point of transition from the past to the future, becoming instead a site of the permanent rewriting of both past and future” (Groys, 2009, p. 4). Although in linear time, the linear trend of time is important to the individual, and uses watches for his daily appointments, for someone whose mental paradigm is programmed based on the multi-active time, appointment is referenced later or before a specific event in his work plan. For these people, an appointment with a friend is referred to before or after lunch or shopping. (What time? It is not clear!) “For linear-action people [also for cyclical-action people] time is clock, and calendar-related. While in the multi-active culture time is event” (D.Lewis, 2010, p. 57).

In the linear or cyclic approach, “We interpret the beginning of a life from the perspective of the end” (Hammer, 2011, p. 28). While in the concept of multi-active time, “There may be more complex interconnections between events where earlier events generate later events, and later events fulfill or complete earlier events.” (Ibid, p. 28) In a society that the multi-active time is dominant, any new interpretation of the past can lead to the formation of a new narrative of the present or future definition. In the concept of multi-active time, “Time is conceptualized as an ordered arrangement of defined events, rather than as an endless flow of experience in an indivisible continuity” (Bunnag, 2017, p. 3). In fact, diverse interpretations of the past open the way to the emergence of multiple and various concepts of the present and future.

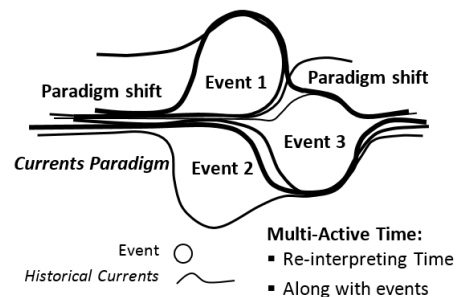


Fig. 3. Multi-active Time and the Historical Paradigm Problems



With such an awareness of time, it should be mentioned: First, our understanding of the past and the future is not absolute. The formation of new interpretations from the past or future times can affect other timeframes. Second, how the interpretations come up: Although we are faced with eschatological interpretation in the linear concept of time, or in the cyclical time, the occurrence

of an event destroying this eschatological interpretation; but in the multi-active time, known paradigms in society will change with a new interpretation of the past or future. In fact, we will encounter a paradigm shift in the past, present, and future periods. Whatever the “Paradigm shift” in society be more acceptable, its scope will be greater in the re-interpretation of the past and future.

Table 2. The Concept of Time and Social Behavior

Concepts of Time	Definitions	Reference
Linear Time	1. Time is clock -and calendar- related. 2. The past is over, but the present ... [Present] work for you in the immediate future. 3. [Linear] time is based on three key moments representing the beginning, culmination, and the end. (compare with 7 and 13) 4. These groups [of people] are also monochromic ... they prefer to do only one thing at a time. 5. Time is treated as an empty category that is filled by sequences of events to be ordered and comprehended by means of chronology ... sequences of events are regarded as unrepeatable and highly contingent	<ul style="list-style-type: none"> • D. Lewis, 2010, p. 57 • D. Lewis, 2010, p. 53 • Subrt, 2001, p. 215 • D. Lewis, 2010, p. 54 • Tomich, 2011, p. 55
Cyclical Time	6. [Time is] ... an unlimited supply of it just around the next bend. 7. [Cyclical time] expresses itself on the level of historical consciousness ... connected with the idea of some sort of eternal cycle occurring place in the form of recurring circular returns. (compare with 3 and 13) 8. The overall orientation of the cyclical theories [or society] has been a negation of active intervention for planned change. [Cyclical time] largely derives from the fatalistic attitude regarding the cyclical process of change.	<ul style="list-style-type: none"> • D. Lewis, 2010, p. 57 • Subrt, 2001, p. 215 • C. Carlson, 1978, p. 27
Multi-active Time	9. Time is event -or personality- related. 10. The present has ceased to be a point of transition from the past to the future, becoming instead a site of the permanent rewriting of both past and future. 11. The more things they can do at the same time ... Multi-active peoples are not very interested in schedules or punctuality. 12. [Multi-active time] is always done by linking some event. 13. [Multi-active Time] is a relationship that groups of humans set between two or more courses of events, of which one is taken as a relative framework or measure for the standardization of the others. (compare with 3 and 7)	<ul style="list-style-type: none"> • D. Lewis, 2010, p. 57 • Groys, 2009 • D. Lewis, 2010, p. 55 • Klein, 2010, p. 5 • Subrt, 2001, p. 213

FINDING OF THE RESEARCH

Studying in the field of architecture will continuously challenge the students with historical judgments. A critique of theories or architectural works will be accompanied by a look at the events before and after them. Strengthening students’ critical thinking is tied to strengthening their ability to link these historical events. Thinking in the past, present and future periods is one of the characteristics of learning in the field of architecture; and how communication between them defines the concept of time for students.

In the article’s theoretical framework, the characteristics of the various types of time concept were discussed in how to communicate between different time periods -the past, present, and future. Now, the question

arises: “In the critical view of architecture students toward history, what is the interaction between these time periods?”

Questionnaire Analysis

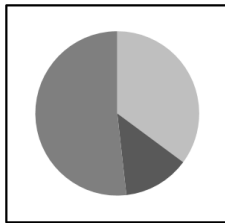
A questionnaire was used to assess the perception of architecture students from different types of time concept. This questionnaire was distributed to 168 students of Qazvin Islamic Azad University (QIAU) in 12 classrooms with 9 different teachers. In this way, the influence of the factors of the teacher’s teaching style and the dominant thought on the classroom, which can lead to a common point of view among all the members of a class, has been reduced as much as possible. These students were Ph.D. candidates in architecture or studied M.A., and Bachelor’s



degree in architecture or urban planning. Also, all of these students have at least four years of studying architecture, and all of them have experienced the architectural theory course in university.

Table 3. Frequency of Respondents

	Students' Grade	No.	Percent	Male	Female
	B.S. (last year)	59	35%	19	40
	M.S.	87	52%	29	58
	Ph.D.	22	13%	6	16
	Total	168	100%	54	114



The questionnaire is set up with a spectral response of ten percent (from 0 to 100 percent). Students respond to the options according to their consent with the question. The “Ordinal Scale” is considered in the response, in addition to ranking the responses, the priority level of each question for the respondent can also be measured; in this way, we can sort the responses. In the questionnaire, the “Nominal Scale” has been considered. The questionnaire consists of 9 questions, which for every time concept, 3 questions are considered. Also, to avoid uniformity in the response process, the questionnaire that provided to the respondents was not regulated like Table 4.

The analysis of this questionnaire, on the one hand, shows the tendency of students to each of the three concepts of time, and on the other hand, one can conclude that what are the relationships between the past, present, and future, in the analysis of the history of architecture by students.

Table 4. Questionnaire

No.	Questions / Phrase	Concepts of Time
1	I use timely scheduling for my daily schedule.	Linear Time
2	I don't like to do a lot of work at the same time, when I'm done; I'm looking for the next job.	
3	As much as we try to re-interpret the past, in any case, our understanding of the present or future will not be affected.	
4	I'm not upset by the deterioration of my daily schedule; I can do another opportunity.	Cyclical Time
5	Although I plan for my week, but these programs are floating and not so predictable.	
6	What's going on in the future is actually replaying or repeating the past.	
7	For appointments I do not set the clock, always set them up before or after my daily tasks.	Multi-active Time
8	Without losing quality, I can easily do a few things at once.	
9	An event that occurs in the present will change both the future and the past.	

With the aim of comparing students “Daily Behaviors” and their “Acquired Commentary” in college education, a solution to the questionnaire design is anticipated. While all questions respond to the personal and daily lives of respondents, answering questions 3, 6, and 9, with more

thought, needs an interpretive interpretation of history. As a result, these two categories of questions can be a criterion for comparing their daily behaviors and their acquired commentary in college education.

Table 5. The Results of the Questionnaire

Answers Questions		100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0	No Answer	Total
		Linear	1	14	13	14	18	12	26	21	14	17	10	6
2	23		20	17	19	13	20	16	11	12	8	5	4	168
3	13		8	12	10	10	27	25	15	15	15	14	4	168
Cyclical	4	11	11	11	18	14	32	13	17	14	14	8	5	168
	5	13	11	23	22	15	24	10	13	9	12	11	5	168
	6	10	8	12	14	13	26	11	22	15	19	13	5	168



Multi-active	7	9	9	12	11	16	24	18	14	21	16	15	3	168
	8	6	7	14	17	23	30	13	12	16	10	12	8	168
	9	17	17	17	16	15	21	12	11	13	11	8	10	168

Reliability of the Questionnaire

Cronbach’s alpha test was used to assess the reliability of the questionnaire. “Cronbach alpha depends on two factors: the number of questions and the mean of correlation between questions”. (Habibpur, 2009, p. 367) The number of questions is 9. To determine the mean of correlation, the “Kendall’s Tau-b” coefficient was used, which is based on a two-to-two comparison between the responses and the mean correlation of the questions is 0.185. Thus, according to the Cronbach’s alpha test, its value is 0.714. (See: Cramines, 1979, p. 46)

The value of 0.714 represents the acceptable grade to measure the reliability of this questionnaire. (See: Habibpur, 2009, p. 366)

The Relationship between Time Concepts in the Questionnaire

In the design of the questionnaire, the concepts of time are consciously separated from each other. Thus, with no link between the questions, first, we can provide separate analysis of each concepts; and second, one can also compare the daily behaviors of students and their acquired commentary from the academic environment. This approach can be seen in Figs. 4 and 5. After receiving the questionnaires, the test of this approach has been done with Kendall’s Tau-b. Accordingly, questions 3, 6, and 9 are not correlated. “The value of this coefficient with a correlation range of 0.20 to 0.35 means a weak relationship, and less than this range indicates a very weak relationship or no relationship.” (Habibpur, 2009, p. 453)

Table 6. Correlation Coefficient Matrix of Questions

Questions	3	6	9
3	1	0	0.07
6		1	-0.07
9			1

ANALYSIS OF THE FINDING

In order to achieve a meaningful comparison of questionnaire data, we need to get answers to a certain criterion, and get their exact result in each row to a specific number. In this way, it is possible to compare questions together. So, for every question, the number of people who have marked a particular option is multiplied by the value of that option, (14×80%) and we divided the result into a total number of respondents. For example: 23 people in question 5 have chosen 80%; the multiplication of these two numbers and their division into 163 is 0.11, which is a comparable benchmark for us. In this way, if 10 people have chosen 100% for one question, the criterion will be equal to 20 people who have selected 50% for the same question. Therefore, it can be said that the collected responses are comparable to other responses in terms of its value.

Table 7 shows the trend of the sample population (students of Qazvin Islamic Azad University) to the time concepts.

Table 7. Converting the Results of the Questionnaire to Comparable Data

Questions	Answers	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0	Result	Total
Linear	1	0.08	0.07	0.07	0.08	0.04	0.08	0.05	0.03	0.02	0.01	0	0.53	0.55
	2	0.14	0.11	0.08	0.07	0.05	0.06	0.04	0.02	0.01	0	0	0.58	
	3	0.08	0.04	0.06	0.04	0.04	0.08	0.06	0.03	0.02	0.01	0	0.46	
Cyclical	4	0.07	0.06	0.05	0.08	0.05	0.10	0.03	0.03	0.02	0.01	0	0.50	0.52
	5	0.08	0.06	0.11	0.09	0.06	0.07	0.03	0.02	0.01	0.01	0	0.54	
	6	0.06	0.04	0.06	0.06	0.05	0.08	0.03	0.03	0.02	0.01	0	0.44	
Multi-active	7	0.03	0.05	0.06	0.05	0.06	0.07	0.04	0.03	0.03	0.01	0	0.43	0.46
	8	0.04	0.04	0.07	0.08	0.09	0.09	0.03	0.02	0.02	0.01	0	0.49	
	9	0.11	0.10	0.09	0.07	0.06	0.07	0.03	0.02	0.02	0.01	0	0.58	



Question One

1. How much do the linear, cyclic, and multi-active concepts act in the architecture student’s daily behaviors?

Fig. 4 shows the results of Table 7 in a comparable manner. Part C illustrates the daily behavior of students in terms of time concepts. As seen in the Fig. the linear

and cyclic times have the highest value in shaping the behaviors of students in everyday life, and the multi-active time plays the smallest role in this pattern. This Fig represents a logical relationship between the past, present, and future periods. Subsequently, the sudden occurrence of a paradigm shift -such as an event we expect in the multi active time- is not expected in this behavior pattern.

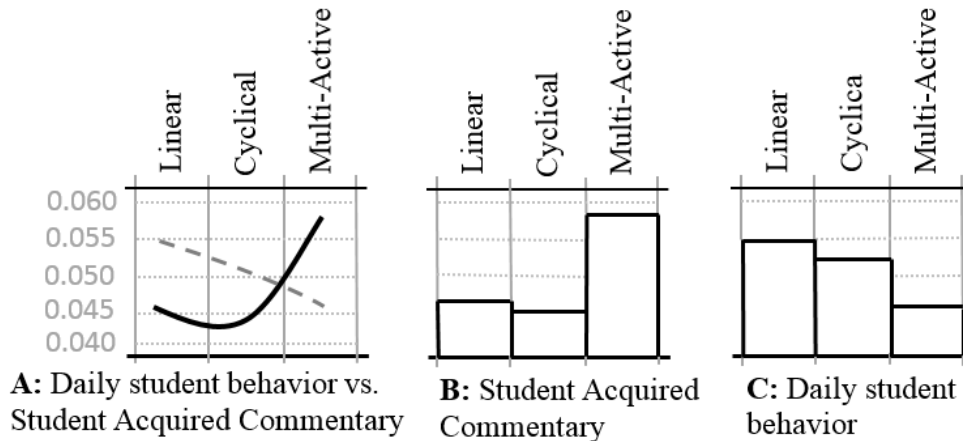


Fig. 4. The Relationship between Daily Behavior and Acquired Commentary of Students of Time Concepts

Here, linear time has the highest value. Formation of a linear relationship between past, present, and future, as well as the lack of interest in the collision of several paradigms for the emergence of a new state of events (Fig. 1) are considered as linear time characteristics. As the questionnaire shows, the phrase “I don’t like to do a lot of work at the same time, when I’m done; I’m looking for the next job.” in the expression of linear time has the highest value (0.58) in the daily life of students. Also, the cycle time for students is in second place. At the cyclical time, the past is not lost. Not in the same way, but -as shown in 2.4- the repetition of events can be expected in the cyclical time. The phrase “Although I plan for my week, these programs are floating and not so predictable.” has received the highest score (0.54) in the description of the cyclic time.

In quoting the questionnaire, it can be said that the daily behavior of architecture students is a combination of the linear and cyclical concept of time. The past, present, and future periods are affected sequentially and daily events, doing things, and time setting, follow the same sequence.

Question Two

2. For students who have at least four years of study

experience, how much do the concepts of time act in the architecture student’s acquired commentary to history?

Part A of Fig. 4 illustrates the two approaches to daily behaviors of students and their acquired commentary. Also, as seen in part B of Fig. 4, the multi-active concept of time, with great difference, plays the most role in student’s academic commentary of history. In the multi-active concept more than the past, present, and future periods; these are historical events that matter. Our interpretation of the past or our expectation of the future is not absolute, but the occurrence of various events could be affected in our interpretation of the past, present, and future. This approach has received the highest value (0.58) from the students in response to the phrase “An event that occurs in the present will change both the future and the past”.

As you can see from the questionnaire, when architectural students encounter historical interpretations, they try to revising their interpretation of the past and the future, by relying on events that are continually changing in the present time. This process, due to its difference with daily behaviors of the students, should be considered as a product of their acquisition of the university.

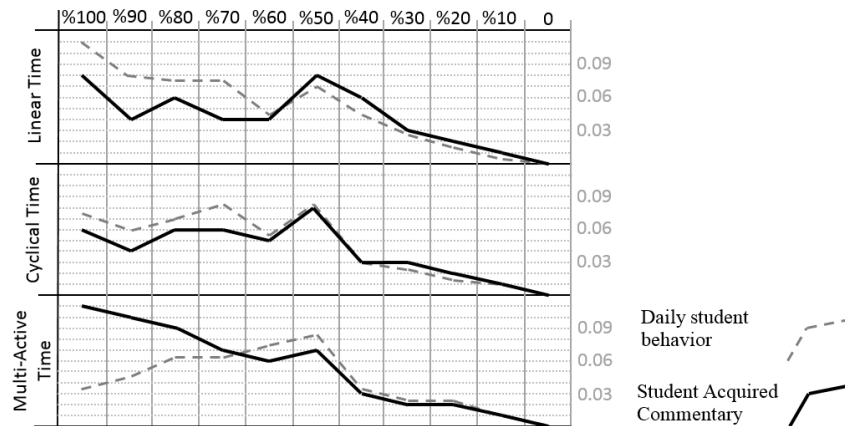


Fig. 5. The Relationship between Daily Behavior and Acquired Commentary of Students of Time Concepts

Question Three

3. With the aim of examining the role of university education in understanding the concepts of time, what is the relationship between the daily behavior of the architecture students and their acquired commentary in the university environment?

In accordance with Table 6, Fig. 5 also illustrates the values that students have identified for each concept of time separately. Dashed lines reflect the daily behavior of students, and bold lines indicate their acquired commentary of the time concept according to the role of the academic environment. Also, the distance between two lines interpret the difference between the values of these two views. On the other hand, the parallelism between these two lines also indicates their interaction. In this way, the parallel situation shows a two-way interaction, and the cross-sectional state indicates a contradiction between the concept of time in the daily life of the students and their acquired commentary.

As seen in the Fig, in the multi-active concept of time, these two lines have the highest distance. Consequently, they show the highest contradiction between the students' daily behavior and their acquired commentary of history. Although the multi-active concept of time in the daily lives of students has little effect and value, but in their professional life- because of learning architecture- has the highest value; and of course, it plays the most critical role in describing events in the history of architecture. Also, these two lines initially have the highest distance, and then, by interrupting each other, they demonstrate the contradiction between students' perceptions of the multi-active concept in daily and university life.

It seems that the cyclical concept of time plays an equal role in the daily and academic life of students.

Compared to two other concepts, the two lines have the smallest distance in the cyclical concept and they move in parallel. In this way, the cyclical concept of time in daily life of students and the interpretation that they have in the academic environment to history, have same and equal value.

The linear concept of time plays a central role in relation to other concepts. The lines are neither separated nor close together. In fact, we can consider the influence of the linear concept of time as an epidemic perception among students, which plays an important role in their daily behavior as well as in their acquired commentary in the academic environment.

CONCLUSION

As considered in the analysis of the finding, on one hand, architecture students are affected by daily life in society in the process of forming their perception of time concepts; on the other hand, they receive this perception in the university environment and learn by the architecture theory. These two will shape the mentality of the architecture students in how to communicate between the past, present, and future period. A different type of time perception is shaped by the study of architecture, and it cannot be equated with medical, electricians, and mechanics students.

For architecture students, although the cyclical concept of time has a mediocre role in their daily lives and their interpretations of time period; the linear concept and the multi-active concept of time both play fundamental roles in their perception of time. The experience of architectural theory analysis and their critical look at architectural history events can be considered as the most important reason for this difference.



For this reason, linear interpretations, making absolute conclusions from historical narratives, and simple perceptions -not complex- are not invaluable in the critique of architectural students. In different view, their tendency toward the multi-active time to the impact of the academic environment has prepared architecture students with complex impressions, and constantly changing architectural historic events. In the view of the architecture students, the perception of historical narratives will not be absolute; their view will change with the formation of a new definition of historical narratives.



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