

Time Orientation among Emergency doctors: A Field Study

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Abstract

The concept of time is considered one of the most vital concepts that has engaged the interest of numerous scholars, including psychologists. Time serves as the framework we rely on to organize our daily lives. However, each individual has a unique experience with time, shaped by past experiences that influence the formation of their time perspective and structure their lives through an orientation toward the past, present, or future. Within this context, this study aims to investigate the time orientation of emergency physicians. Through this contribution, we also seek to highlight the importance of time orientation in organizing our lives and making decisions to alleviate psychological stress. To address this topic, we formulated the following research problem: **What is the time orientation (past, present, future) among emergency Doctors?** To address this problem, we relied on the clinical method and the case study approach. As data collection tools, we conducted semi-structured clinical interviews and integrated observations within these interviews, alongside applying the Zimbardo Time Perspective Inventory (ZTPI). Furthermore, this research reviewed previous literature addressing the topic of time orientation. Ultimately, the study revealed the dominant time orientation among emergency physicians.

Keywords: Time perspective, Time orientation, Doctors, Emergency department.

Introduction

Time perspective plays a role in an individual's cognitive processes and their utilization of acquired information, as well as in decision-making. Individuals leverage their acquired knowledge by recalling past events, which aids in decision-making and strongly influences their future behavior—relying on past experiences to structure the future. It is precisely this sequence of events across past, present, and future that gives time meaning within our minds. Mastering control over time is an individual achievement shaped by individual differences such as age, gender, personality type, social environment, psychological state, and experience, as well as the nature of one's life experiences and various stressors. Over time, we tend to rely on one of the three temporal frames more than the others in our decision-making process. Consequently, thinking within a specific time frame becomes a personality trait and an individual style, through which we can hypothesize how an individual might react to specific situations (Pavelková, 2013, p. 17). Thus, every individual possesses their own unique time perspective.

Based on the foregoing and the psychological literature reviewed, we considered it crucial to study a highly important segment of society: doctors—specifically emergency room physicians—given their vital role in treating patients and saving lives, as well as their

continuous exposure to psychological stress stemming from both the demanding nature of their work and living conditions. Accordingly, the primary objective of this study is to uncover their dominant time orientation or temporal focus.

Therefore, the present study seeks to answer the following research question:

- What is the time orientation among emergency room doctors?

Study Hypothesis: The prevailing time orientation among emergency room doctors is the future time orientation.

Aims and Significance of the Study:

- **Study Aims:**
 - To identify or determine the dominant time orientation among a sample of emergency room doctors.
 - To highlight the importance of time perspective in alleviating psychological stress and assisting doctors in decision-making.

Significance of the Study

- Contributing to the body of literature that addresses time perspective and time orientation, particularly within Arab studies due to their relative scarcity.
- Drawing the attention of specialists toward designing therapeutic programs based on a time perspective framework as a distinct therapeutic modality—specifically by training individuals to flexibly transition from one time dimension to another. This fluidity constitutes "balanced time perspective," defined as an equilibrium among past, present, and future orientations. Such balance reflects an individual's capacity to learn from the past, adapt to the present, and prepare for goal-directed behavior.
- Contributing to the development of future research that incorporates time perspective into prevention and psychotherapy, particularly for clinical populations suffering from Post-Traumatic Stress Disorder (PTSD).

Definition of Terms

Time Perspective (TP):

Theoretical Definition: "The totality of the individual's views of his psychological future and psychological past existing at a given time" (Lewin, 1951, p. 75).

Operational Definition The researcher operationally defines it as the extent to which the three time dimensions of the Zimbardo Time Perspective Inventory—with its subscales (Past-Positive, Past-Negative, Present-Hedonistic, Present-Fatalistic, and Future)—dominate the behavior of the emergency physician. It reflects their way of experiencing these time periods from their own perspective, through the behaviors exhibited in various life situations. This is measured by the score obtained by the physician after responding to the items of the scale.

Time Orientation:

Theoretical Definition: Defined by Al-Badrani (2004) as "the dominance of the past, present, and future temporal dimensions and the orientation toward them in determining human behavior within work and learning contexts" (Al-Badrani, 2004, p. 12).

Operational Definition: Operationally defined by the researcher as the score obtained by the case study participant upon administering the Zimbardo Time Perspective Inventory (ZTPI).

Doctors:

Plural of physician; an individual holding a State Doctorate in Medicine who is qualified to provide medical treatment to individuals suffering from illnesses.

Emergency Department :

It is a hospital department that provides 24/7 healthcare services under the supervision of a medical team to receive all emergency and critical cases resulting from accidents. It is divided into the Medical Emergency Department and the Surgical Emergency Department. Operationally, it refers to the department at Bachir Bennacer Hospital in Biskra.

Previous Studies

Al-Fatlawi (2000): *Time Orientation and Its Relationship to Positive and Negative Affect Among Baghdad University Students (Iraq)*

- **Objectives:** This study aimed to examine the relationship between time orientation and positive/negative affect among students at the University of Baghdad, as well as to assess the level of time orientation within this sample.
- **Findings:** Statistical analysis revealed that students' scores on the **past time orientation** dimension were positively correlated with negative affect. Similarly, scores on the **present time orientation** dimension showed a positive correlation with negative affect. Conversely, scores on the **future time orientation** dimension were negatively correlated with negative affect.

Bani Younis (2007): *The Relationship Between Mental Health Levels and Dimensions of Time Orientation Among a Sample of University of Jordan Students (Amman)*

- **Objectives:** This study aimed to investigate the levels of mental health and time orientation, as well as the relationship between these variables, among a sample of students at the University of Jordan.
- **Methodology:** A convenience sample of 118 undergraduate students (82 females, 36 males) was selected. Mental health was assessed using the Goldberg and Williams scale (General Health Questionnaire / GHQ), while time orientation was measured using Al-Fatlawi's scale.
- **Findings:** Statistical analysis revealed significant correlations between levels of mental health and the various dimensions of time orientation.
- **Recommendations:** The author recommended conducting regular and systematic assessments of students' time orientation dimensions and mental health levels for psychological evaluation and intervention, alongside developing appropriate educational programs to enhance these psychological domain

Section 1: Theoretical Framework

1. Time Orientation

Time perception is intrinsically tied to the perception of change; nevertheless, each individual possesses a unique psychological experience with time. This subjective experience is shaped by lived events that influence the formation of one's temporal perspective, ultimately structuring and organizing life across the realms of the past, present, and future. Humans are inherently oriented toward these three temporal dimensions. Although time perspective resides within an individual's internal awareness and subjective perception of time, Kurt Lewin conceptualized it by stating that an individual's time perspective is determined by their total psychological view of the future through the awareness of the present and the utilization of past experiences (Lewin, 1951, p. 57).

This bias becomes an dispositional cognitive style or an individual-difference variable, functioning as a characteristic and predictive trait of how an individual responds across a

range of everyday life choices. Such temporal bias may involve either the excessive or exclusive reliance on a single temporal domain. These restrictive biases contrast sharply with a **"Balanced Time Perspective" (BTP)**—an optimal mental framework that allows individuals to flexibly switch between temporal frames (past, present, and future) depending on situational demands, resource appraisals, or personal and social evaluations (Strathman & Joireman, 2005, p. 89).

A-Past Orientation (Past Dominance)

Cottle and Klineberg (1974) clarified that an individual's orientation toward the past does not imply a complete lack of influence from the future; rather, individuals differ in their preferential organization of past-, present-, or future-oriented activities. In contrast, a **Past-Negative** time perspective is characterized by a pessimistic and aversion-laden view of the past, predominantly marked by regret and distress over past injuries, losses, or pain (Zimbardo & Boyd, 2008).

Individuals dominated by this temporal perspective tend to exhibit higher levels of aggression, depression, and anxiety, alongside lower self-esteem and diminished impulse control. Furthermore, they display lower levels of familial integration and parental involvement, accompanied by heightened conflict within their social support networks (Abdel-Latif, 2015, p. 52).

Conversely, the **Past-Positive** time perspective reflects favorable, warm, and nostalgic attitudes and feelings toward past experiences (Zimbardo & Boyd, 2008).

Psychological determinism asserts that every thought, feeling, and action we manifest stems directly from antecedent events in our past—even though such determinism may not necessarily conflict with a subjective sense of agency (Zimbardo & Boyd, 2008, p. 85)

B- Present Orientation (Present Dominance): According to Zimbardo and Boyd (2008), individuals with a Present-Fatalistic time perspective embody hopeless attitudes toward the future and life in general, relying heavily on luck and chance as playing a significant role in determining future outcomes. They exhibit higher levels of aggression, depression, and anxiety, alongside lower levels of self-esteem and self-control, and are more prone to engaging in lying and theft compared to others.

C- Future Orientation (Future Dominance): Future orientation is a generalized, specific tendency within an individual to anticipate and evaluate future developments. It involves comprehensive subjective evaluations and expectations of time, as well as specific spatial expectations, through the self-regulation of one's knowledge, assessments, and behavioral patterns regarding the future. Events of future time—including the consequences of one's own behavior—can be expected or believed to be causally interconnected in a systematic, logical manner (Al-Badran, 2011: 344).

Negative Time Orientation: *Regression is one of the defense mechanisms used in a negative time orientation, occurring due to the individual's inability to cope.*

Positive Time Orientation: *People make decisions based on negative or positive memories of similar situations. (Alan Strathman, Jeff Joireman, 2005, p. 89)*

2- Time Orientation and Its Behavioral Components: Al-Fatlawi was able to identify a set of behavioral components (indicators) for each temporal dimension of time orientation, as represented in the following table:

Table No. (01): Time Orientation and Its Behavioral Components

Time Orientation	Behavioral Components
Past	1-Regression and fixation. 2-Attachment to parents. 3-Isolation and withdrawal. 4-Withdrawal from reality in favor of the past.
Present	1-Indulgence in immediate desires (whims). 2-Acting based on momentary feelings. 3-Failure to subject behavior to rational thought. 4-Withdrawal from the past and future in favor of the present.
Future	1-Persistence in achieving ambitions and hopes 2- Predicting or anticipating the future 3- Belief in planning and organization. 4. Attachment to the future at the expense of the past or present.

(Al-Fatlawi, 2010, p. 128)

3- Time Orientation, Personality Traits, and Personality Patterns: Every personality possesses a pattern of traits that plays a fundamental role in determining individual behavior, and time perspective is one of the general characteristics of personality. It plays an important role in life processes and events, influences many domains of human activity, and is associated with various personality traits. (Bolotova & Hachaturova, 2013, p. 122)

Several studies have analyzed the relationship between time perspective and personality, with most of these studies conducted within the framework of the Big Five personality traits model. Morgunov (1994) noted that individuals can only develop their personalities when they are conscious of time—that is, when they master time and create their own temporal framework.

Another Russian psychologist, L.S. Vygotsky, pointed out that "the formation of the human element in the individual and personality presupposes a specific combination or temporal synchronization of internal developmental processes with external conditions, which is characteristic of each age stage of ontogenesis." (Bolotova & Hachaturova, 2013, p. 120)

Thus, temporal determinants are internalized into the personality structure, playing a pivotal role. The concepts of time orientation and Type A & B personality patterns have received significant attention from numerous researchers. Among them is Al-Fatlawi (2000) in his study on *"Time Orientation and Its Relationship to Positive and Negative Affectivity Among University Students."*

Individuals with Type A personality exhibit a sense of time urgency, feeling that time is insufficient for their work. This leads them to think about and perform multiple tasks simultaneously, remaining dissatisfied as they cannot find enough time to accomplish everything they desire, thus falling into a cycle of feeling overwhelmed by time. Schafer (1991) attributes this feeling to "a weakness in self-esteem that leads Type A individuals to struggle against time." (Ben Zeroual Fatiha, 2007, p. 222)

role in perception and overall individual development.

***Neuroticism:** Individuals exhibiting higher levels of neuroticism are more sensitive to threatening stimuli; thus, they more frequently experience negative emotions such as sadness and anxiety. In line with the premise regarding the importance of event appraisal, neuroticism is identified as a significant predictor of depression and anxiety, where this effect is mediated by negative automatic thoughts—that is, negative appraisals of events that are uncritically accepted as true.

***Extraversion:** Extraversion is defined as the capacity to generate positive emotions and optimism. There is a positive correlation between extraversion and the past-positive perspective, and a negative correlation between extraversion and the past-negative perspective. (*Kostić, Pejičić, & Chadee, 2017, p. 155*)

***Second: The Empirical (Applied) Section**

1- Study Methodology: Methodology is defined as "the systematic approach adopted by the researcher to study a particular phenomenon or problem. It is the art of correctly organizing a series of dynamic thoughts, either to uncover an unknown truth, demonstrate a premise, or address the research questions posed by the subject of study." (*Abdelrahman El Wafi, 2007, p. 38*)

***The Clinical Method:** It is the in-depth study of individual cases, regardless of whether they fall within the range of normality or pathology. It is utilized for scientific and psychological purposes to diagnose and treat manifestations of dysfunction. (*Zineb Choukair, 2005, p. 41*)

This method was adopted as the most suitable approach, given that our focus is on human behavior within contexts of interaction, as well as social and psychological adjustment.

Within the clinical method, we applied the **case study approach**, as it is considered one of the primary tools that assist the psychologist in diagnosing and understanding an individual's condition and their relationship with their environment.

It is also defined as "the study of an aspect of behavior with a certain degree of depth and the individual's subjective experience. This is achieved by gathering qualitative, descriptive, and detailed data about that person using interviews, observation, or both combined." (*Fikri & Subhi, 2016, pp. 22-23*)

2- Study Tools: In this study, we relied on several tools; the student researcher employed psychological tests, semi-structured clinical interviews, and implicit clinical observation.

3- Psychological Tests: The Zimbardo Time Perspective Inventory (ZTPI). The researcher did not design new research tools, given the availability of existing instruments adapted and standardized for the Algerian environment, which possess adequate psychometric properties rendering them suitable for use, including:

- **The Zimbardo Time Perspective Inventory (ZTPI):** The Zimbardo Time Perspective Inventory (ZTPI) was developed by American researchers Philip Zimbardo and John Boyd (Zimbardo & Boyd, 1999) following a 20-year study. It relies on the three temporal frames of time perspective—namely the past, present, and future.

The final version of this multidimensional scale was constructed to measure time perspective, its relationship with these three temporal frames, and the degree of orientation toward its dimensions, taking into account motivational, emotional-cognitive, and social aspects. The inventory was translated and standardized for the Arab environment by Jarallah and Charfi (2009).

Case Studies: In this study, we relied on two cases (a female doctor and a male doctor) working in the Emergency Department – Biskra.

Presentation of the First Case:

Personal Data:

- **Name:** S.
- **Age:** 42 years old
- **Gender:** Male
- **Occupation:** General Practitioner
- **Professional Experience:** 14 years
- **Marital Status:** Married
- **Number of Children:** 2 (girl and boy)
- **Socioeconomic Status:** Good
- **Department:** Medical and Surgical Emergencies

Administration of the Psychological Test:

- **Administration of the Zimbardo Time Perspective Inventory (ZTPI):** The subject was highly receptive to the scale.
- **Past-Positive:** The subject scored 46, divided across 15 items, yielding a mean score of 3.07. This indicates a strong orientation toward this dimension, which was clearly reflected in his responses to the corresponding items.
- **Past-Negative:** The subject scored 24 points across 10 items, resulting in a mean score of 2.40 out of 5.
- **Present-Hedonistic:** The subject scored 27 points divided across 9 items, obtaining a mean score of 3.00 out of 5.
- **Present-Fatalistic:** The subject scored 24 points divided across 9 items, yielding a mean score of 2.67. This demonstrates a lower inclination toward this dimension in Case S compared to the other dimensions. This finding was further corroborated during the clinical interview, where he indicated that everything he currently experiences is predetermined. His responses on this scale supported this stance, particularly on Item 03 ("Fate determines much in my life"), to which he responded "Sometimes." and Item 37 ("You can't really plan for the future because things change so much"), to which he also responded "Sometimes."
- **Future Dimension:** The subject scored 52 points divided across 13 items, obtaining a mean score of 4.00 out of 5. This indicates a clear orientation toward the future time

Based on the test results, the **Future dimension** (4.00) emerges as the dominant perspective for Case S, followed by **Past-Positive** (3.07) and **Present-Hedonistic** (3.00), which show a very minor difference. These are followed by **Present-Fatalistic** (2.67), and finally, **Past-Negative** (2.40).

Overall, the findings obtained from administering the Zimbardo Time Perspective Inventory (ZTPI) clearly demonstrate that Case S exhibits a primary orientation toward the future time perspective.

***General Analysis of the First Case:**

Through the clinical interview and the ZTPI results, it is evident that the **Future perspective** is dominant for Case S. This is clearly reflected in his positive aspirations toward the future and his participation in specialization exams, as he aims to become a cardiothoracic surgeon

in the future and open his own private clinic. Despite the stresses he faces in the workplace, he remains punctual and strives diligently to achieve his future goals. In this context, Adler posits that an individual's consciousness is driven more by their expectations of the future than by past experiences, and that life goals serve as the subjective cause of psychological events.

This is followed immediately by the **Past-Positive dimension**, where the subject draws upon past experiences—such as succeeding in the Baccalaureate exam—to sustain success and relive positive moments, while also learning from past mistakes. According to Zimbardo and Boyd (2008, p. 64), the past-positive time perspective captures attitudes toward the past rather than an objective record of good and bad events; positive attitudes toward the past may reflect actual positive events individuals have experienced, or constructive attitudes that allow individuals to benefit from highly challenging situations. Furthermore, a high future orientation ensures that individuals will avoid risks whenever possible. This propensity underpins his strong orientation toward the future, accompanied by an unwavering determination to succeed—a fact evidenced by his statement that he continues to work despite difficult and unpleasant conditions. This persistence can be understood through achievement motivation, which is highly correlated with a future time orientation. He remains hopeful for an improvement in current conditions, an attitude aligned with Snyder's (1995) Hope Theory, which defines hope as a cognitive process in which an individual establishes goals and works toward achieving them, driven by the necessary motivation to progress toward those objectives (Abd Al-Latif, 2010)

Presentation of the Second Case:

Personal Data:

- **Name:** A.
- **Age:** 55 years old
- **Gender:** Female
- **Occupation:** General Practitioner
- **Professional Experience:** 25 years
- **Marital Status:** Married
- **Number of Children:** 4 (3 girls and 1 boy)
- **Socioeconomic Status:** Good
- **Department:** Medical and Surgical Emergencies

Administration of the Zimbardo Time Perspective Inventory (ZTPI):

The subject was highly receptive to the scale.

- **Past-Positive:** The subject scored 30 points divided across 9 items, obtaining a score of 3.33 out of 5, which indicates a low orientation toward the Past-Positive dimension in Case A.
- **Past-Negative:** The subject scored 20 points divided across 10 items, yielding a score of 2.00 out of 5. This demonstrates a lower inclination toward this dimension in Case A compared to the other dimensions, as evidenced by not reliving negative events—reflected in her response to Item 22 ("I've taken my share of abuse and rejection in the past"), to which she responded "Very Untrue" (Very Strongly Disagree)—nor engaging in the negative reconstruction of pleasant events, as shown by her responses to Item 16 ("Very Untrue") and Item 50 ("Untrue").

- **Present-Hedonistic:** The subject scored 50 points divided across 15 items, obtaining a score of 3.33 out of 5. This indicates a strong orientation toward this dimension, which was clearly reflected in her responses to the corresponding items.
- **Present-Fatalistic:** The subject scored 22 points divided across 9 items, obtaining a score of 2.44. This demonstrates a lower inclination toward this dimension in Case A, as reflected in her response to Item 14 ("It doesn't really matter what I do because things are going to turn out one way or another anyway"), to which she responded "Very Untrue" (Very Strongly Disagree), and Item 37 ("You can't really plan for the future because things change so much"), to which she likewise responded "Very Untrue" (Very Strongly Disagree).
- **Future Dimension:** The subject scored 44 points divided across 13 items, obtaining a score of 3.38 out of 5. This indicates a strong orientation toward the future time perspective, as demonstrated by her response to Item 10 ("When I want to achieve something, I set goals and consider the specific means for achieving them"), to which she responded "Very True" (Very Strongly Agree).

Based on the test results, the **Future dimension** (3.38) emerges as the dominant perspective for Case A, followed jointly by both **Present-Hedonistic** and **Past-Positive** (3.33). These are followed by **Present-Fatalistic** (2.44), and finally, **Past-Negative** (2.00).

Overall, the findings obtained from administering the Zimbardo Time Perspective Inventory (ZTPI) clearly demonstrate that Case A exhibits a primary orientation toward the future time perspective.

General Analysis for Case Two

Based on the clinical interview and the results of the Zimbardo Time Perspective Inventory (ZTPI), subject (A.A.) obtained a mean score of **3.38 out of 5** on the **Future** dimension, indicating the dominance of this perspective within her psychological structure. This is clearly reflected in her positive aspirations for the future, notably her ambition to establish her own private clinic—demonstrating that she maintains the will, hope, and capacity to plan toward her long-term objectives.

Steadily striving toward her future goals grants her positive energy and momentum. This aligns with the theoretical framework of **Kurt Lewin (1942)**, who posited that the nature and content of an individual's expectations for the future are formed in light of their relationship with their current psychological present.

This perspective is further supported by the subject's statement regarding her commitment to work despite challenging circumstances, noting: *"If it helps me excel."* This behavioral tendency can be attributed to a high level of **achievement motivation**, which is strongly linked to a future-oriented perspective.

Moreover, her desire to transform her current reality is best understood through **Snyder's Hope Theory (1995)**, which conceptualizes hope as a cognitive process wherein an individual determines their goals, mobilizes the requisite motivation, and identifies actionable pathways to attain those goals (Abdel-Latif, 2010).

General Analysis:

The dominant time perspective among emergency physicians is the **future dimension**. The findings of the current study align with the results of the study by Zimbardo & Boyd (1999) as well as the study conducted by Jarallah (2009) in his adaptation of the Zimbardo Time

Perspective Inventory into Arabic. His study revealed that the future dimension is the one to which students are most oriented, with a mean score of 3.85, followed by Past-Positive at 3.67, then Present-Hedonistic at 3.65, followed by Present-Fatalistic at 3.07, and finally Past-Negative at 2.98. He attributed the difference between his findings and those of the original study to cultural variations.

Furthermore, the results of this study agree with the study by Al-Fatlawi (2010), which concluded that students exhibit a strong orientation toward the future and a weak temporal orientation toward both the past and present dimensions. They are also consistent with the study by Muhammad Badr (2015), which found that university professors orient toward the future dimension more than the remaining four dimensions of time perspective.

Thus, the future is a precise component and indicator relied upon to judge the contents and scopes of human experience, as well as an important determinant of individual behavior, since looking toward the future is at the core of human experience.

Individuals with a future time orientation are capable of delaying gratification, driven by the desire to achieve future goals. Such individuals tend to be less depressed, less violent, and less anxious compared to those with other time perspectives. Furthermore, they are more creative, open, and energetic, enjoy higher levels of self-esteem, tend to engage more in academic pursuits, and have life partners who are more supportive of them (Holman & Zimbardo, 2009).

According to Al-Fatlawi, among its behavioral components are persistence in achieving ambitions and hopes, forecasting or anticipating the future, belief in planning and organization, and attachment to the future at the expense of the past or present—which was clearly evidenced in the clinical study of the two cases.

Conclusion

In conclusion, this study has shed light on a highly vital topic that has drawn significant attention from scholars, particularly psychologists, focusing on a prestigious segment of society in one of the noble professions that plays a crucial and effective role in community life—the topic of time orientation, which confers a unique quality upon our lives.

Furthermore, we confirmed the hypothesis that the dominant time orientation among emergency physicians is the future perspective. This finding aligned with the hypotheses of previous studies, which underscores the importance of future orientation in decision-making, coping with psychological stress, and adaptation—where behavior is driven by the pursuit of future goals and rewards alongside conscientiousness and the consideration of future consequences.

Finally, we recommend extending the application of time perspective from theory to time-based therapy (Time Perspective Therapy) in treating post-traumatic stress disorder (PTSD) among veterans, sexually assaulted women, and traffic accident victims, owing to its superior efficacy.

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