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Research Paper

An A-B-C Model on Time Perspective, Coping, and Happiness

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ABSTRACT

Time perspective dominates our life through its impact on behavior, emotions, coping, and how we interact. We use different coping mechanisms when dominated by opposing emotions. These emotions further affect our feelings about different time periods in life. This paper aimed to understand the effect of time perspective on coping and happiness among young adults in India. The objectives were to assess the relationship between time perspective, coping, and happiness, to study the effect of time perspective on coping and happiness, and to assess the indirect effect of time perspective on coping mediated by level of happiness. 200 young adults aged 18-24 filled Zimbardo's Time Perspective Inventory (ZTPI-short), Subjective Happiness Scale, and Coping Scale. Findings showed significant correlations between variables. Time perspective explained 8% variance in coping and as much as 25% variance in happiness. A full mediation model was seen between negative time perspective and coping via happiness. Partial mediation occurred when positive time perspective was taken in place of negative time perspective. Hence, happiness plays an indirect role in time perspective's effect on coping.

Keywords: *Time Perspective, Positive Time Perspective, Negative Time Perspective, Happiness, Coping, Mediation, A-B-C Model*

Most of the time, we're circling around the concept of time. With questions surrounding our present status, future plans, and past experiences, we're working around a time frame. How we describe ourselves today is a cumulation of our memories and experiences. All of us lean towards a time perspective, it might be positive or negative or towards the past, present, or future. Time perspective is a psychological concept and is unique for everyone. People differ significantly based on what temporal perspective directs their decisions, emotions, and behaviour. Some people may put emphasis on their past experiences and learning while making decisions, others may use the 'here-and-now' formula, while some make decisions according to how it may impact their future path.

It influences us in ways we do not realise. Through this study, there will be a better insight into how time perspective might influence coping and happiness.

Time Perspective

Time perspective is a person's preference for a time zone, and their tendency to use it as reference for decision making, coping, and other aspects in life. Zimbardo divided time

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perspective into five areas: Past-Positive, Past-Negative, Present-Fatalistic, Present-Hedonistic, and Future-Oriented. Later, Al divided future-oriented into future-positive, and future-negative.

Past-oriented individuals make decisions based upon prior knowledge and experiences. Their coping includes re-visiting tried-and-tested techniques. Present-hedonists are known to be playful, content, and happy. They flow freely and accept what comes. Present-fatalists also live in the moment but believe that life is determined by external factors. People with future time perspective focus on if-then reasoning, probability, and long-term plans.

Time perspective can also differ upon positive and negative states. People who have a positive time perspective (PTP) are more likely to be happy and satisfied. They're living in the moment, and think pleasurably about the future. People with negative time perspective (NTP) are stuck with painful memories, believe that fate dominates their life, and that they have no say in their life.

Coping
Coping is the ability to deal with conflicts, problems, and situations, in a healthy and effective manner. These are behavioural and psychological efforts to master, tolerate, reduce, or minimize stressful situations. Time perspective plays a significant role in a person's coping style. People with future time perspective are more skilled at dealing with unforeseen stressors (Cardon et al., 2012). A longitudinal study showed that future time perspective led to better adaptive coping, which further led to greater levels of well-being (Chua et al., 2015).

Happiness
Happiness is the level of joy, contentment, and positivity experienced in everyday life. Time perspective acts as a predisposing factor to how we view life. It predicts happiness even after controlling personality (Przepiórka et al., 2020). A future-oriented person would see life in rose colours. A past-positive person will be satisfied with how life turned out. PTP leads to positive moods, while NTP leads to negative moods (Stolarski et al., 2013).

Perceiving things positively or negatively determines overall happiness. Higher one's past-positive time perspective, higher the well-being when mediated by high levels of gratitude for the past (Bhullar et al., 2015).

As far as happiness and coping are related, it is a complicated interrelation since both aspects are subjective. Literature suggests a positive correlation between happiness and efficient coping styles, and a negative correlation between happiness and inefficient coping styles (Azizi, 2012).

A-B-C Model
In order to understand the relationship between these three variables, it is important to study the A-B-C model it forms. By doing so, one can open possibilities to a lot of applications in the real world. Research shows that balanced time perspective is responsible for happiness and adaptive coping (Sircova and Mitina, 2008; Stolarski et al, 2013). Since temporal orientation directs behaviour and mood at a conscious or subconscious level, an A-B-C model could help design interventions. A longitudinal study showed that future time perspective led to better adaptive coping, which further led to greater levels of well-being (Chua et al., 2015).
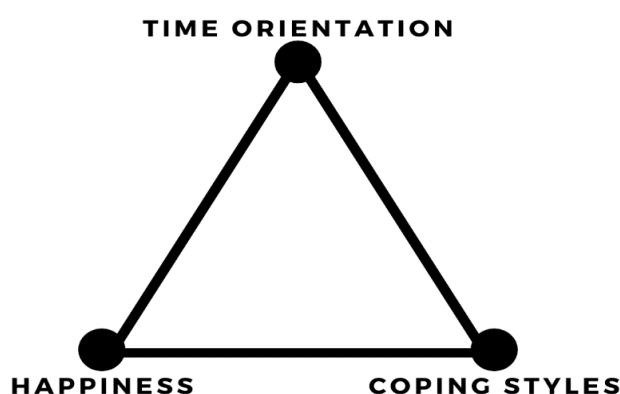
Figure 1 A-B-C Model on Time Perspective, Coping, and Happiness

There have been only a handful of researches on time perspective in the Indian context, and even otherwise. Moreover, there is no research showing a possible A-B-C model. This study is aimed to cover these gaps in the research pool, and come up with a model that shows association between the variables that are so common and significant to individuals every day of their lives.

METHODOLOGY

Aim

To understand the effect of time perspective on coping and happiness among young adults in India.

Objectives
- To assess the relationship between time perspective, coping, and happiness.
- To study the effect of time perspective on coping and happiness.
- To assess the indirect effect of time perspective on coping mediated by level of happiness.

Hypothesis
- There will be a significant relationship between time perspective, coping, and happiness.
- There will be a significant effect of time perspective on coping and happiness.
- The effect of time perspective on coping will be mediated by level of happiness.

Participants

200 young adults participated in the study, falling between 18 to 24 years of age. The subjects were both male (n_1=77) and female (n_2=123), belonging to Delhi, India. The mean age of the participants was 20.52 (SD=1.57).

Design

Descriptive research design was used to understand the statistical relationship between variables, including any direct and indirect effects. The independent variables are positive and negative time perspectives. The dependent variable is coping, and the mediating variable is happiness.

Instruments

Three measures were used in the study,

- ***Zimbardo Time Perspective Inventory (ZTPI-short) (Al et al, 2015):*** ZTPI-short is based on Zimbardo's original ZTPI and measures 6 subcategories of time perspective: past-negative, past-positive, present-fatalistic, present-hedonistic, future-positive, and future-negative. The internal consistency measured to Cronbach's alpha varied from 0.65 to 0.78. When compared to the original ZTPI, the alpha value ranged between 0.66 to 0.85.
- ***Coping Scale (Hamby et al, 2015):*** It assesses cognitive, emotional, and behavioral methods of dealing with problems. The internal consistency is 0.91. Validity was established with strong correlations with measures of regulatory strengths like anger management and endurance, and with measures of well-being such as subjective wellbeing.
- ***Subjective Happiness Scale (SHS) (Lyubomirsky and Lepper, 1999):*** It is a 4-item self-report scale measuring subjective happiness. Five measures of happiness and wellbeing were used to validate this scale. The internal consistency from Cronbach's alpha ranged between 0.79 to 0.94.

Procedure

The participants signed an informed consent giving voluntary consent to participate in the study, being between the age of 18-24, understanding that there will be confidentiality, and they can withdraw from the study anytime. They filled ZTPI-short, SHS, and Coping Scale. Correlation and multiple linear regression were used to understand the relationship between variables. PROCESS analysis by Hayes was used to understand mediation and indirect effects.

RESULTS

Table 1 Descriptive Statistics and Correlation Coefficients for Study Variables

Measure		M	SD	1	2	3	4
Positive Perspective	Time	32.96	4.20	-			
Negative Perspective	Time	24.64	6.10	-.051	-		
Coping		37.75	4.92	.284***	-.086	-	
Happiness		19.21	5.31	.357***	-.371***	.323***	-

*Note. ***correlation is significant at the <0.001 level (2-tailed). N = 200.*

Results show a significant positive correlation of positive time perspective with coping and happiness, a significant negative correlation of negative time perspective with happiness, and a significant correlation of coping with happiness. Results show no correlation of coping with negative time perspective and a very weak positive correlation with positive time perspective.

Table 2 Regression Coefficients of Negative Time Perspective and Positive Time Perspective on Coping

Variables	B	SE	t	p	95% CI
Constant	28.35	3.03	9.33	<.001	[22.36, 34.34]
Positive Time Perspective	.32	.08	4.11	<.001	[.17, .48]
Negative Time Perspective	-.05	.05	-1.05	.294	[-.16, .05]

Note. CI = Confidence Interval

Results showed an effect of negative and positive time perspective on coping skills in young adults, $F(2, 197) = 9.25$, MSE = 3.03.

Table 3 Regression Coefficients of Negative Time Perspective and Positive Time Perspective on Happiness

| Variables	B	SE	t	p	95% CI
Constant	12.66	2.96	4.26	<.001	[6.81, 18.52]
Positive Time Perspective	.42	.07	5.50	<.001	[.27, .58]
Negative Time Perspective	-.30	.05	-5.76	<.001	[-.41, -.20]

Note. CI = Confidence Interval

Results showed an effect of negative and positive time perspective on the level of happiness in young adults, $F(2, 197) = 33.33$, MSE = 2.96.

**p < .01
***p < .001
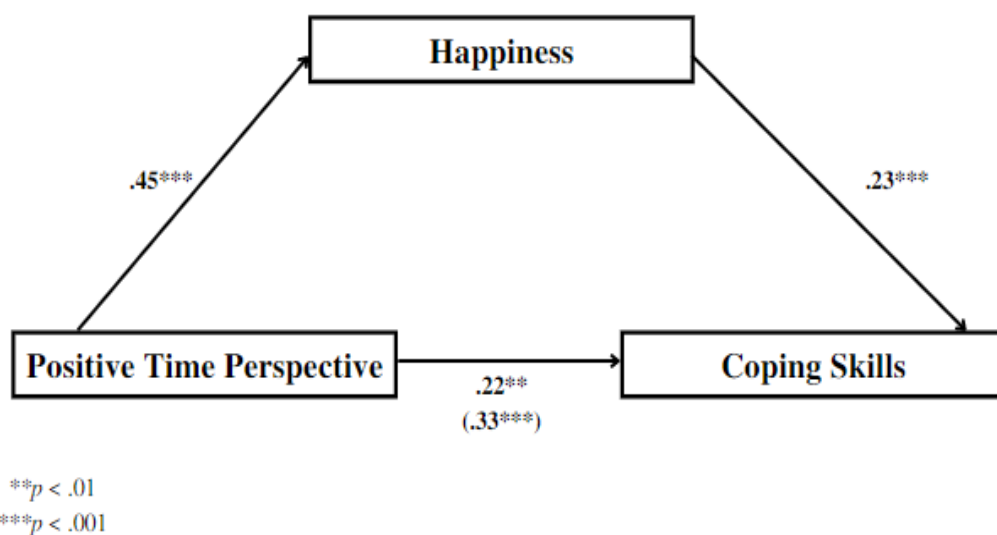
Figure 2 Mediation Model between Positive Time Perspective, Coping, and Happiness
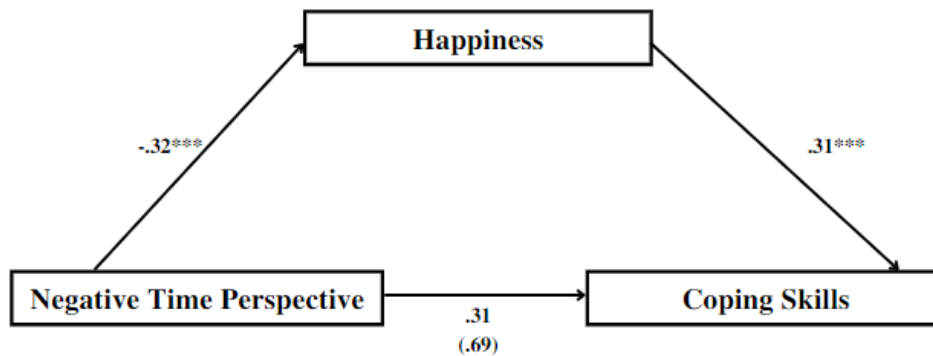
Figure 3 Mediation Model between Negative Time Perspective, Coping, and Happiness

Table 4 Mediation Model Analysis Estimates

Effect	Estimate	SE	p	95% CI
Negative Time Perspective > Happiness > Coping				
Indirect Effect (a*b)	-.10	.02	<.001***	[-.16, -.05]
Direct Effect (c)	.03	.05	.545	[-.08, .14]
Total Effect (c')	-.06	.05	-1.220	[-.18, .04]
Positive Time Perspective > Happiness > Coping				
Indirect Effect (a*b)	.10	.03	.003**	[.03, .18]
Direct Effect (c)	.22	.08	.006**	[.06, .39]
Total Effect (c')	.33	.07	<.001***	[.17, .48]

Note. Confidence Interval (*CI*) at 95%
**$p < 0.01$, ***$p < 0.001$

Results show the indirect effect of negative time perspective on coping via happiness as -.10, and the direct and total effects were not statistically significant. Results also show the statistically significant indirect effect of PTP on coping via happiness as .10 with direct and total effects as .22 and .33 respectively.

DISCUSSION

Relationship between Time Perspective, Coping, and Happiness

The first hypothesis predicted a significant relationship between time perspective, coping, and happiness. PTP had a positive and significant relationship with coping and happiness. It suggests that more dominant a person's PTP, more the happiness and adaptive coping skills used by the individual.

NTP reported a significantly weak and negative relationship with happiness. People with NTP are dominated by negative emotions which leads to low happiness. Hence, one might use coping that has proven efficient earlier, leading to adaptive and efficient coping skills instead of avoidance. This also might be due to underlying factors mediating the relationship between NTP and coping.

Finally, happiness had a positive relationship with coping. While the degree of the relationship was weak, it was statistically significant.
Hence, the first hypothesis shows mostly significant results between the variables and opens up opportunities to test this relationship through more complex statistical tools like regression.

Effect of Time Perspective on Coping and Happiness
Time perspective explained 8% of variance in coping and 25% of variance in happiness. While PTP positively predicted coping and happiness, NTP negatively predicted happiness and had no significant effect on coping.

Hence, time perspective does indeed predict coping and happiness to some extent. Time perspective being an under researched construct and contributing as much as 25% variance in happiness can be a great implication to happiness models. A positive view of time predicts happiness whereas a negative view of time predicts negative affect (Garcia et al., 2012).

Moreover, it is bound to happen that time perspective leads to a higher variance in happiness as compared to coping skills. PTP is an amalgamation of past positive, present hedonistic, and future positive. Hence, individuals who are scoring high on these domains are satisfied with their lives and are bound to be happier. They've accepted their pasts, embraced any negative traumas or experiences, think positively about their future and goals, and live in the present. Hence, people who are more forgiving and accepting of their pasts are happier, see past events as experiences, and use it to their advantage while those having a negative perception of time are stuck to the negative patterns.

NTP dominated people are likely to hold onto traumas and are fearful of the future. They are strongly attached to the idea of fate, and believe that they don't have much under control. Hence, even when they feel tense, they might not feel motivated to do anything about it. Instead, they might go with the flow of learned helplessness, which only feeds into the cycle of negativity.

By giving importance to positive events, one would experience higher levels of happiness. Whereas, emphasis on negative events leads to unhappiness and guilt.

Coping was only predicted by PTP and merely accounted for 8% variance. Coping is a dynamic concept and is influenced by various factors, like personality, past experiences, modelled behavior, current situation, or sociodemographics. Hence, purely being dominated by one time perspective might not be the biggest predictor of coping.

Mediation Model between Time Perspective and Coping via Happiness
Time perspective and happiness showed significant direct effect throughout analysis, whereas time perspective and coping showed little or no relationship with one another. Upon further analysis, happiness was taken as a mediating variable to understand a possible

indirect effect between time perspective and coping. Since prior literature supported the relationship between time perspective and coping, it was only plausible that the indirect effect was studied to get an accurate view.

The third hypothesis was accepted since time perspective predicted coping when mediated by happiness. For PTP, the indirect, direct, and total effects were found to be statistically significant. Higher PTP leads to higher happiness which leads to better coping. When situations are evaluated positively, one is likely to handle it calmly instead of using unhealthy and avoidant coping.

As for NTP, only the indirect effect of happiness was found significant. It shows a full mediation effect of happiness as a mediator. It indicates that merely being dominated by NTP wouldn't lead someone to use unhealthy coping. A person dominated by NTP may experience unhappiness, which in turn, predicts usage of unhealthy coping skills of the person. People with negative time orientation are more likely to use avoidance coping strategies (Bolotova and Hachaturova, 2013).

Whether through a direct or indirect effect, the aim for the study is supported through the results. On one hand, PTP has a direct and indirect effect on coping mediated by happiness. Whereas, NTP has an indirect effect on coping mediated via levels of happiness.

CONCLUSION

The present study has shed light on the relationship between time perspective, coping, and happiness. It specifically studies the effect time perspective has on coping and happiness. Analysis supports prior research and suggests that the way a person perceives time has an effect on his happiness. Having a rigid, negative view of time may demonstrate a negative view of life and experiences which may lead to unhappiness and discontentment. A person who accepts life as it is or is optimistic about the future is more likely to be dominated by positive emotions, and hence, is higher on the happiness scale. As far as coping is concerned, it may be linked with multiple confounding variables, making it difficult to directly be affected by time perspective. Hence, time perspective predicts coping through the indirect role of happiness.

Limitations, Implications, and Suggestions

Like any research, this study has its own limitations. Due to limited resources, the sample size was only 200, and has an evident increased sample of females as compared to males. The study also focused upon a specific age group, restricting the findings to be generalised. Researchers can study other age groups to understand how time perspective changes as per age and developmental period.

It is also duly acknowledged that mediation effect sizes of NTP were small. This might be due to small samples, short versions of scales, or other underlying reasons.

The study offers insight on variable interactions. The mediation model is especially significant and would help with educational models and therapy plans. A change in time perspective can shift happiness in a favourable direction (Iranpour et al., 2018) and improve coping skills. This might be helpful to use in interventions since NTP shows significant correlation to depressive symptoms (Desmyter and Raedt, 2012). It seems as though a PTP is a cognitively based motivational source that helps young adults be happier and evaluate situations in a better light, which further help them use more efficient coping skills.

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