

Relationships Between Future Time Perspective And Mental Health

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Study 1 investigated relationships between future time perspective and adherence style, and adolescents with higher level of obsession and higher sense of commitment displayed a higher sense of hopefulness. Adolescents with a lower sense of non-commitment also exhibited a lower sense of external control and the higher sense of hopefulness, and adolescents with a lower sense of apathy and escape displayed greater future orientation in addition to a lower sense of external control and higher sense of hopefulness. Study 2 investigated relationships between future time perspective and life feeling, and adolescents with positive life feeling showed more future orientation, higher sense of hopefulness and lower sense of external control. In addition, they set more “study and entrance to a higher grade” projects to obtain employment and demonstrated more interest in “physical appearance and love”. Conversely, adolescents with negative life feeling displayed less future orientation, higher sense of external control and lower sense of hopefulness, and distracted themselves from negative life feeling by basically listing more “new experience” projects.

【Key words】 Future time perspective, time perspective, mental health.

Future time perspective (FTP) is defined as the totality of the individual’s view of his psychological future existing at a given time (Lewin, 1942). Nurmi (1991) stressed that this concept is particularly important for young people for several reasons. First, a well-structured and extended FTP is a characteristic of a well-adapted personality and allows for activities which are highly valued in modern society, such as delay of gratification, planning, problem solving and achievement. Second, adolescent’s problem behavior, such as delinquency, problems in career choice, and drug abuse, is likely related to how young people see their futures. Third, how adolescents see their futures play an important part in their identity formation which is often defined in terms of exploration and commitment concerning future-oriented interest.

FTP comprises the following three aspects: (1) cognition; (2) affection; and (3) belief. The cognitive aspect includes future extension, content of FTP and degree of structuration of the future. The affective aspect refers to hopefulness. The belief aspect measures belief about the future, especially the extent to which people believe they are able to influence and have power over their own future.

A well-structured and extended FTP is currently considered characteristic of a well-adapted personality, and play an important role in maintenance and promotion of mental health. Numerous studies have therefore investigated relationships between FTP, various personality variables, and indices of mental health such as depression and life feeling.

Lessing (1968) investigated relationships between length of FTP and personality variables in samples of fifth, eighth and eleventh-grade children. Children with longer FTP displayed scores indicative of better personal, social and total adjustment than children with shorter FTP, and also expressed a greater sense of responsibility for their own destiny and greater willingness to defer gratification. Furthermore, Lessing (1972) investigated relationships between FTP and life satisfaction in children and adolescents. Two types of FTP were differentiated: cognitive perspective (time over which future images are projected) and cognitive-motivational perspective (degree of structuration of the future). Length of cognitive perspective displayed negative correlations with life satisfaction among children but positive correlations among adolescents. Conversely, cognitive-motivational perspective demonstrated positive correlation with life satisfaction among both children and adolescents.

Komiyama (1973, 1975) investigated relationships between brightness of FTP, life feelings, sense of values, and kinds of leisure activities among high school and undergraduate students. Life feelings were more positive for adolescents demonstrating bright FTP than for adolescents with dark FTP. Bright and dark FTP were also associated with idealistic and nihilistic attitudes respectively. Furthermore, adolescents with bright FTP spent holidays engaged in more positive leisure activities than adolescents displaying dark FTP.

From studies in a sample of undergraduates using Time Structure Questionnaire (TSQ), an instrument designed to measure the degree to which individuals perceive their use of time as structured and purposeful, Bond & Feather (1988) found that TSQ scores were positively correlated with a self-esteem, reported health, Type A behavior and efficient study habits and negatively correlated with depression, psychological distress, anxiety, neuroticism and anomie. Sugiyama & Kanda (1996) also reported that adolescent' FTP (goal-directedness and hopefulness) significantly influences apathetic tendencies in a study of university students.

However, Yurigusa (1981) found that major three variables (temporal dominance, temporal development and temporal relatedness) measured using a circle test did not display relationships with self-esteem and social self-esteem among undergraduates. Matriny (1989) also found no significant relationships between future orientation and depressive mood among graduate students and mental health professionals. However, Loretta (1992) found intercorrelations between time orientation, time extension and depressive mood among three groups in the ranges of 35 to 40, 45 to 60, and over 60 years.

Note that the reserach described above did not focus on all three components of FTP. Studies that

focused on all three components are necessary to understand the detailed relationships between personality variables, indices of mental health and FTP. The present study therefore focused on all three components of FTP and investigated relationships between FTP and mental health.

Study 1

Study 1 focused on adherence style as an index of mental health, and investigated relationships between this variable and FTP. Adherence style refers to intense interest in the work, perfectionism, honesty, punctiliousness and intense sense of justice. These are the character traits with obsession as the setting. Obsession is involved in the social function of all human activities to some degree. This is the attempt to control one's own body and surrounding physical world as a means of coping with inherent human hopelessness and forlornness.

We focused on the content of FTP, future extension and future orientation as cognitive aspects of FTP, and hopefulness as the affective aspect. The belief aspect here refers to a sense of external control over the future.

Method

Subjects Subjects comprised fifty students from a women's college.

Instrument An FTP inventory was administered. This inventory comprises three subscales. The first subscale measures future orientation and contains nine items (e. g., "I have purpose and direction for my future", "I have a general plan for my life"). The second subscale measures hopefulness and contains ten items (e. g., "I am looking forward to the future with great expectation", "I have hope for my future"). The third subscale measures sense of external control over the future and contains twelve items (e. g., "I think that my future is determined by fate", "I think that it is best to leave future events up to chance"). Subjects responded to these items using a five-point scale.

Furthermore, an event test was administered to measure content of FTP and future extension. Subjects were instructed to choose the seven statements that happen in the future from fifteen statements comprising seven positive and eight negative statements and to write down the period when they thought the statement might occur. Subjects were also instructed to write down when the period for the statement to be actualized is uncertain.

Seven positive statements were as follows: "Go to a movie that I want to see"; "Dress smartly"; "Take lesson in (English, tea ceremony or flower ceremony)"; "Go on an enjoyable trip"; "Find significance in one's own life"; "Lead a happy family life"; "Succeed in my occupational goals". The eight negative statements were as follows: "Get drunk"; "Lie dozing"; "Hang around town"; "Live a humdrum life"; "Be thoughtless"; "Do not live a full family life"; "Can not work with a sense of fulfill-

ment”; “Watch TV even though there are no programs that I want to see”.

The adherence style inventory devised by Arai (1998) was administered. This inventory utilizes four subscales. The first subscale is commitment, measuring the intense interest in work, perfectionism, honesty, punctiliousness, and intense sense of justice (e. g., “I want to buckle down to everything”, “I want to be able to achieve my goals at anytime”). This contains ten items. The second subscale is non-commitment, and measures lack of immersion in important matters (e. g., “I frequently avoid stress”, “I can not get absorbed in everything”). This subscale contains four items.

The third subscale is apathy and escape, and measures sense of apathy and escape from important matters (e. g., “I frequently have a sense of apathy”, “I want to abandon everything and escape”). This contains sixteenth items. The fourth subscale is obsession and refers to living a simple and clear life style and setting life principles to escape from an uncertain and unpredictable life and avoid participating in an unpredictable life style (e. g., “I am not satisfied with anything unless I do everything perfectly”, “When I try something, I can not do by halves”). This contains nine items. Subjects responded to these items using a five-point scale.

Results

Subjects were classified into a high group with scores above the mean, and a low group with scores below the means for each subscale comprising the adherence style inventory.

The content of FTP Table 1 shows the percentage of the total number of positive statements and the total number of negative statements that occupy in the total number of chosen statements for each group in each subscale for adherence style. As shown in the Table 1, there was no large difference in the percentage of positive statements between high group and the low group in all subscales for adherence style.

Future extension Projects were classified as uncertain (the period for projects to be actualized is uncertain) or certain (the period for projects to be actualized is certain) for high and low groups in each subscale for adherence style. As shown in the Table 2, no large differences in percentage of uncertain or certain projects were noted between high and low groups in each subscale for adherence style.

Future extension scores were calculated when the period for a project to be actualized was de-

Table 1 The percentage of the total number of positive and negative statements that occupy in the total number of the chosen projects for high and low groups in each subscale for adherence style.

	Commitment		Non-commitment		Obsession		Apathy and escape	
	High	Low	High	Low	High	Low	High	Low
Positive statements	72	62	65	70	77	65	70	72
Negative statements	28	38	35	30	23	35	30	28

Table 2 The percentage of the number of certain and uncertain projects that occupy in the total number of the chosen projects for high and low groups in each subscale for adherence style.

	Commitment		Non-commitment		Obsession		Apathy and escape	
	High	Low	High	Low	High	Low	High	Low
Certain projects	88	83	87	86	87	85	83	89
Uncertain projects	12	17	13	14	13	15	17	11

Table 3 The means of future extension scores (year) for high and low groups in each subscale for adherence style.

	Commitment		Non-commitment		Obsession		Apathy and escape	
	High	Low	High	Low	High	Low	High	Low
	2.41	2.66	2.5	2.75	1.66	3.0	2.0	3.0

Table 4 The means of FTP subscale scores for high and low groups in each subscale for adherence style

	Commitment		Non-commitment		Obsession		Apathy and escape	
	High	Low	High	Low	High	Low	High	Low
Future orientation	3.30	3.14	3.11	3.36	3.37	3.07	2.82	3.60
Hopefulness	3.63	3.25	3.32	3.60	3.66	3.30	3.13	3.73
External control	2.50	2.62	2.69	2.39	2.63	2.48	2.82	2.30

finer. Future extension scores refer to differences between the age of subject and age at which the project will be actualized. Table 3 shows mean future extension scores for high and low groups in each subscale for adherence style. As shown in the Table 3, future extension was longer for the low group than for the high group in the obsession and apathy and escape subscales.

Future orientation, hopefulness and external control Table 4 shows mean scores for each FTP subscale for high and low groups. T-tests were used to compare mean scores for each FTP subscale for adherence style between high and low groups. For the commitment subscale, mean hopefulness scores were higher for the high group than for the low group ($t=2.23$, $df=48$, $p<.05$). However, no significant differences were observed between high and low groups in future orientation and external control subscales.

For the non-commitment subscale, the mean hopefulness scores were lower for the high group than for the low group ($t=1.61$, $df=48$, $.05<p<.10$) and mean external control scores were higher for the high group than for the low group ($t=1.59$, $df=48$, $.05<p<.10$). However, no significant differences in mean future orientation scores were identified between high and low groups. For the obsession subscale, mean hopefulness scores were higher for the high group than for the low group ($t=2.15$, $df=48$, $p<.05$). However, the mean future orientation and external control scores displayed no significant

differences between high and low groups. For the apathy and escape subscale, mean future orientation and hopefulness scores were higher for the low group than for the high group (future orientation, $t = 3.86$, $df=48$, $p<.01$; hopefulness, $t=3.81$, $df=48$, $p<.01$) and mean external control scores were lower for the low group than for the high group ($t=2.81$, $df=48$, $p<.01$).

Discussion

In the apathy and escape subscale, mean future orientation and hopefulness scores are predicted to be higher for the low group than for the high group, and mean external control scores are predicted to be higher for the high group than for the low group. These predictions were borne out by the present results.

In the commitment and obsession subscales, mean hopefulness and future orientation scores are predicted to be higher for the high group than for the low group, and mean external control scores are predicted to be lower for the high group than for the low group. However, only the prediction concerning the hopefulness was supported.

In the non-commitment subscale, mean future orientation and hopefulness scores are predicted to be higher for the low group than for the high group, and mean external control scores are predicted to be lower for the low group than for the high group. Prediction for hopefulness and sense of external control were supported.

Looking at the results for content of FTP, there was no large difference in the percentage of the positive statements in the all subscales for adherence style. In non-commitment and, apathy and escape subscales, arrangement of positive statements might have induced subjects in the high group to view the future from a basis of wishful thinking, and the method might thus have influenced subjects to choose uncharacteristically positive statements. In the commitment and obsession subscales, arrangement of positive statements might have induced subjects in the low group to view the future from a basis of wishful thinking, and the method might thus have influenced subjects to choose uncharacteristically positive statements. Relationships between adherence style and content of FTP might therefore have been masked in the present study.

No large differences were observed in percentage of projects with defined actualized period among total number of projects between high and low groups in each subscale for adherence style.

Future extension is predicted to be longer for the high group than for the low group in the obsession and commitment subscales, and longer for the low group than for the high group in the non-commitment and apathy and escape subscales. Only the prediction concerning apathy and escape have been supported by the present results. Further research is needed to better understand the results obtained in this study.

In conclusion, adolescents with higher level of obsession and higher sense of commitment displayed a higher sense of hopefulness. Adolescents with lower sense of non-commitment also had a lower sense of external control and higher sense of hopefulness, and adolescents with lower sense of apathy and escape displayed the more future orientation in addition to a lower sense of external control and a higher sense of hopefulness. An index of mental health such as adherence style thus appears correlated to FTP.

Study 2

Study 2 focused on life feelings as a index of mental health and investigated relationships between FTP and life feelings. We focused on content of FTP, structuration of the future, future orientation and future extension as the cognitive aspect and hopefulness as the affective aspect. The belief aspect here refers to the sense of external control over the future.

Method

Subjects Subjects comprised twenty five students from a women's college.

Instrument FTP inventory used in Study 1 was administered. The event test was also administered to measure content of FTP and future extension. In Study 1, subjects chose seven statements that would happen in the future from among fifteen statements. Adherence style did not display any relationship with content of FTP. In the non-commitment and, apathy and escape subscales, arrangement of positive statements might have induced subjects in the high group to perceive the future on the basis of wishful thinking and subjects might thus have chosen more positive statements among the fifteen options. In the commitment and obsession subscales, arrangement of positive statement might have induced subjects in the low group to perceive the future on the basis of wishful thinking and subjects might thus have chosen more positive statement among the fifteen options. Adherence style therefore might not display any relationship with content of FTP. Study 2 thus required subjects to spontaneously list the seven events that they want to do.

After that, subjects were instructed to write down the period in which the projects would be actualized. Subjects were also instructed to write down when the period is uncertain. Furthermore, degree of structuration of the future was measured. Subjects were instructed to write down the event which help to actualize its event in the side of its event if there is the event that help to actualize its event among the six events except its event for each event.

The life feeling inventory devised by Ohno (1984) was also administered. This inventory comprises the four subscales. The first subscale measures sense of fulfillment versus boredom and comprises eleven items (e. g., "I have lived a worthwhile life", "I spend my time actively engaged in life").

The second subscale measures sense of independence and self-reliance versus *amae* and lack of self-reliance and includes twelve items (e. g., “I lived life on the basis of faith”, “I have confidence in my way of life”). The third subscale measures sense of solidarity versus isolation and comprises seven items (e. g., “I feel that no body treat me kindly”, “I think that nobody understands me”). The fourth subscale measures sense of trust and time perspective versus mistrust and time-diffusion, and comprises of eight items (e. g., “I feel happy fulfilling my responsibilities”, “I have something to live for”). Subjects responded to these items using a five-point scale.

Results

Subjects were classified into a high group with scores above the mean and a low group with scores below the mean in each subscale for life feeling.

Content of FTP Projects were classified into one of ten categories based on content of FTP. Definitions of ten categories and examples are shown in Table 5. Table 6 shows the percentage of the num-

Table 5 The content of FTP

Category	Definition	Example
Vocation	The category concerning the vocation	Become a public servants. Become a counselor. Find employment.
Marriage and birth	The category concerning the marriage and birth	Marry. Have a baby. Lead a happy family life.
Study and entrance to a higher grade	The category concerning the study and entrance to a higher grade	Study. Do one's homework. Go to a graduate school. Study abroad
Physical appearance and love	The category concerning the physical appearance and love.	Love. Become a beautiful woman. Become a stylish woman.
Economy	The category concerning the economy.	Work at a part time job. Become rich.
Play and hobby	The category concerning the play and hobby	Play with family computer. Have a drink with friends. Go to a movie. Take lesson in tea ceremony.
New experience	The category concerning the exciting experience	Go to the trip.
Mental growth	The category concerning the mental growth.	Become mentally strong. Become a gentle mannered person. Lead a fulfill life.
Daily life	The category concerning the daily life.	Have a meal. Clean the room.
Fatigue	The category concerning the fatigue.	Want to go to bed. Want to come home.

Table 6 The percentage of the number of the ten kinds of projects that occupy in the total number of the projects for high and low group in each subscale for life feeling.

	Fulfillment		Independence and self-reliance		Solidarity		Trust and time perspective	
	High	Low	High	Low	High	Low	High	Low
Vocation	13	11	11	11	15	11	12	12
Study and entrance to a higher grade	13	2	15	0	12	6	12	1
Marriage and birth	13	13	12	11	15	13	13	19
Physical appearance and love	21	7	15	7	20	8	15	7
Economy	8	7	7	9	9	7	8	7
Play and hobby	13	17	14	16	18	14	15	13
New experience	11	21	14	19	11	20	13	21
Mental growth	8	10	7	11	9	9	7	11
Daily life	2	5	3	4	3	4	4	3
Fatigue	2	7	2	9	3	6	2	8

ber of ten kinds of projects that occupy in the total number of projects for high and low groups in each subscale for life feeling. As shown in the Table 6, the percentages of “study and entrance to a higher grade” projects, and “physical appearance and love” projects were higher for the high group than for low group in each subscale. Conversely, percentage of “new experience” projects was higher for the low group than for the high group in the fulfillment, solidarity, and trust and time perspective subscales. Percentage of the “fatigue” category was also higher for the low group than for the high group in the independence and self-reliance, and trust and time perspective subscales.

Degree of structuration of FTP For analysis, “marriage and birth” projects were divided into “marriage” project and “birth” project and “study and entrance to a higher grade” projects were divided into “study” project and “entrance to a higher grade” project. In addition, “physical appearance and love” projects were divided into “physical appearance” project and “love” project.

Figure 1-8 show degree of FTP structuration for high and low groups in each subscale for life feeling. Thirteen kinds of circle are used in all Figures. These circles corresponds to thirteen kinds of projects. The number described in the each circle means the total number of the project. In all Figures, arrow starts from inside the circle and go to another circle. This means that one kind of projects from which arrow starts help to actualize another kind of project to which arrow goes. The number described under the arrow indicates the number of one kind of project that helps to actualize another kind of project.

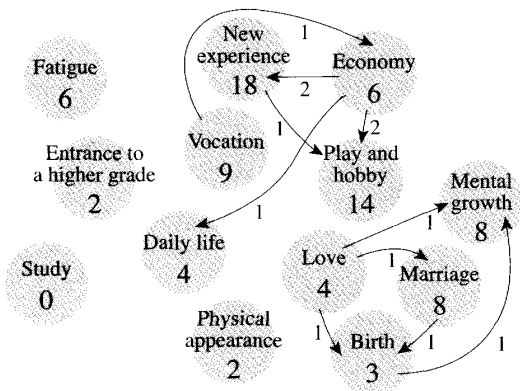


Fig. 1 Degree of FTP structuration for low group in the fulfillment subscale.

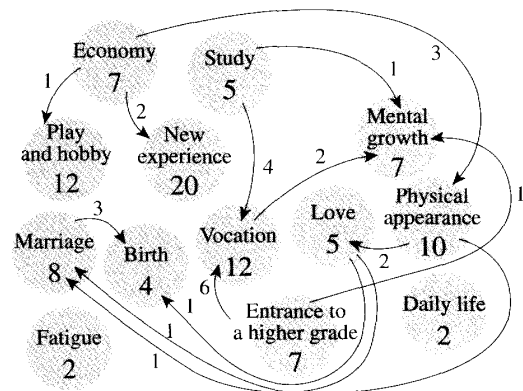


Fig. 2 Degree of FTP structuration for high group in the fulfillment subscale.

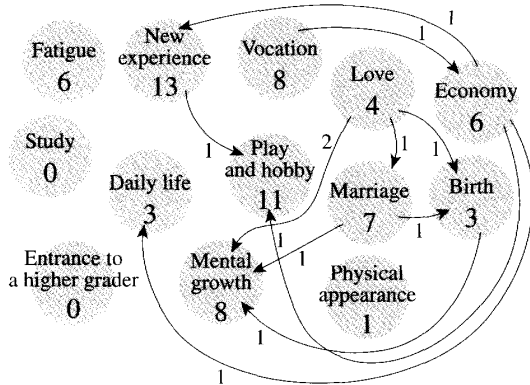


Fig. 3 Degree of FTP structuration for low group in independence and self-reliance subscale.

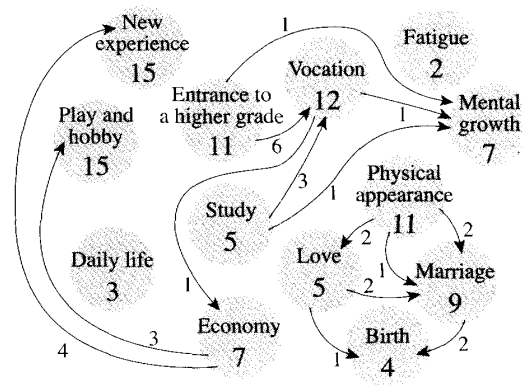


Fig. 4 Degree of FTP structuration for high group in independence and self-reliance subscale

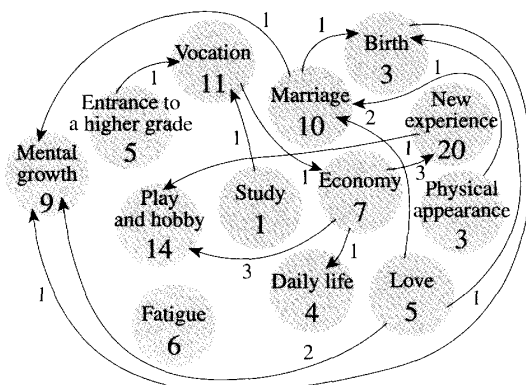


Fig. 5 Degree of FTP structuration for low group in the solidarity subscale.

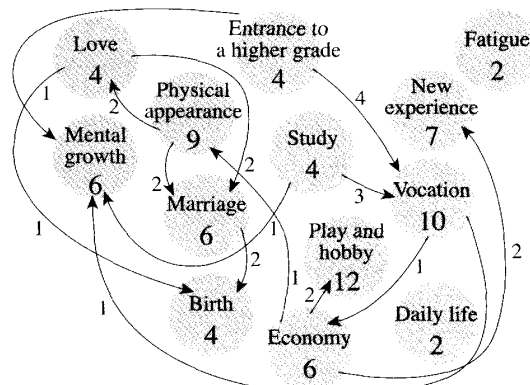


Fig. 6 Degree of FTP structuration for high group in the solidarity subscale.

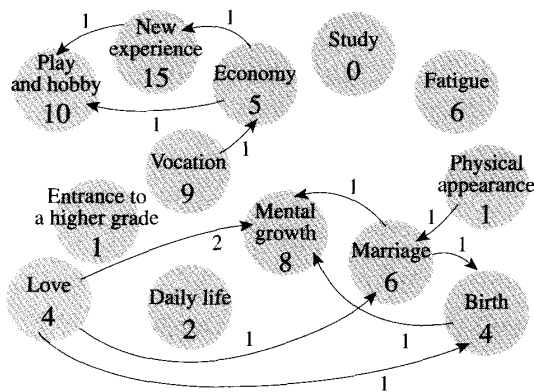


Fig. 7 Degree of FTP structuration for low group in the trust and time perspective subscale.

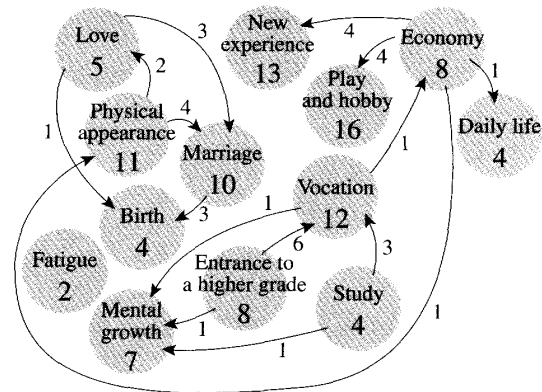


Fig. 8 Degree of FTP structuration for high group in the trust and time perspective subscale.

As shown in the Figure 1-8, the low group displayed few “study” and “entrance to a higher grade” projects in each life feeling subscale. Conversely, the high group displayed more “study” and “entrance to a higher grade” projects and these more projects helped to actualize the “vocation” projects in each subscale. In addition, more “economy” projects helped to actualize “play and hobby”, and “new experience” projects for the high group than for the low group in the trust and time perspective subscale.

Furthermore, “physical appearance” projects helped to actualize “love” projects and “love” projects helped to actualize “marriage” projects. “Marriage” projects also helped to actualize “birth” projects. However, no large differences were noted between the high and low groups with regard to number of projects helping to actualize other project for “marriage”, “birth”, “physical appearance” and “love” projects in each subscale for life feeling.

Future extension Projects were classified as certain or uncertain for high and low groups in each subscale for life feeling. Table 7 shows this results. As shown in the Table 7, the percentage of uncertain projects was higher for the low group than for the high group in the trust and time perspective, and independence and self-reliance subscales.

Table 7 The percentage of the number of certain and uncertain projects that occupy in the total number of the projects for high and low groups in each subscale for life feeling.

	Fulfillment		Independence and self-reliance		Solidarity		Trust and time perspective	
	High	Low	High	Low	High	Low	High	Low
Certain projects	84	81	93	73	90	85	92	72
Uncertain projects	16	19	7	27	10	16	8	28

Difference between age of the subject and age at which project would be actualized was used as a measure of future extension. Table 8 show mean future extension scores for high and low groups in

Table 8 The means of future extension scores (year) for high and low groups in each subscale for life feeling

Fulfillment		Independence and self-reliance		Solidarity		Trust and time perspective	
High	Low	High	Low	High	Low	High	Low
7.97	7.66	6.29	7.41	7.97	6.95	6.93	8.13

Table 9 The means of FTP subscale scores for high and low groups in each subscale for life feeling

	Fulfillment		Independence and self-reliance		Solidarity		Trust and time perspective	
	High	Low	High	Low	High	Low	High	Low
Future orientation	3.88	2.52	3.87	2.29	3.92	2.68	3.82	2.34
Hopefulness	4.06	2.98	3.97	3.21	4.09	3.11	3.95	2.93
External control	1.95	2.82	1.97	2.96	1.91	2.72	2.07	2.82

each life feeling subscale. As shown in the Table 8, future extension was longer for the high group than for the low group in the solidarity subscale. However, in both the independence and self-reliance, and trust and time perspective subscales, future extension was longer for the low group than for the high group.

Future orientation, hopefulness and external control Table 9 shows mean future orientation, hopefulness and external control scores for high and low groups in each subscale for life feeling. First, mean future orientation scores between high and low groups in each subscales for life feeling were compared using t-tests. Mean future orientation scores were higher for the high group than for the low group in each subscale for life feeling (fulfillment, $t=4.99$, $df=23$, $p<.01$; independence and self-reliance, $t=7.07$, $df=23$, $p<.01$; solidarity, $t=4.18$, $df=23$, $p<.01$; trust and time perspective, $t=5.56$, $df=23$, $p<.01$).

Next, mean hopefulness scores were compared between high and low groups in each subscale for life feeling. Mean hopefulness scores were higher for the high group than for the low group in each subscale for life feeling (fulfillment, $t=6.94$, $df=23$, $p<.01$; independence and self-reliance, $t=6.27$, $df=23$, $p<.01$; solidarity, $t=4.93$, $df=23$, $p<.01$; trust and time perspective, $t=5.64$, $df=23$, $p<.01$).

Finally, we compared mean external control scores between high and low groups in each subscale for life feeling. Mean external control scores were higher for the low group than for the high group in each subscale for life feeling (fulfillment, $t=3.69$, $df=23$, $p<.01$; independence and self-reliance, $t=4.51$, $df=23$, $p<.01$; solidarity, $t=3.38$, $df=23$, $p<.01$; trust and time perspective, $t=2.54$, $df=23$, $p<.05$).

Discussion

The purpose of Study 2 was to investigate relationships between FTP and life feeling. Regarding content of FTP and degree of future structuration, high group displayed more “study and entrance to a higher grade” project, and “physical appearance and love” projects, and more “study and entrance to a higher grade” projects helped to actualize the “vocation” projects in each subscale for life feeling. This suggests that adolescents with positive life feeling set more “study and entrance to a higher grade” projects to obtain the employment and have more interest in improving their physical appearance and romantic relationship. In contrast, the low group displayed more “new experience” projects than the high group in the fulfillment, solidarity, and trust and time perspective subscales. This suggests that adolescent with negative life feeling distract themselves from such feelings by basically listing the more “new experience” projects. These results therefore suggests that there is relationship between life feeling, content of FTP and the degree of future structuration.

Looking at the results concerning future extension, the percentage of uncertain projects was higher for the low group than for the high group in both trust and time perspective, and independence and self-reliance subscales. This suggests that when adolescents do not have confidence in their own way and have time diffusion, they are likewise unable to clearly define when their goals might be achieved. Future extension is predicted to be longer for the high group than for the low group in both these subscales. However, the results were contrary to our predictions and future extension was longer for the low group. Further research is needed to better understand these results.

For future orientation, sense of external control and hopefulness, the high group displayed higher future orientation and hopefulness scores, and lower external control scores than the low group in each subscale. These results are consistent with the findings of Kobayashi, Inoue & Mitsutomi (In press).

In conclusion, adolescents with positive life feeling display more future orientation, higher sense of hopefulness and lower sense of external control. They also set more “study and entrance to a higher grade” projects to obtain the employment and display more interest in “physical appearance and love”. Conversely, adolescents with negative life feeling display less future orientation, higher sense of external control and lower sense of hopefulness, and distract themselves from such feeling by basically listing the more “new experience” projects. Thus, an index of mental health such as life feeling appears to display a relationship with FTP.

General Discussion

The present study focused on all three components of FTP and investigated the relationships between FTP and mental health. Study 1 and 2 focused on adherence style and life feeling respectively, as indices of mental health.

Regarding the cognitive aspects of FTP, no clear relationship was identified between content of FTP and adherence style in Study 1. This study had subjects select seven events that would happen in the future from fifteen choices. Adherence style did not display any relationship with content of FTP. In the non-commitment and, apathy and escape subscales, arrangement of positive statements might indicate that subjects in the high group view the future on the basis of wishful thinking and the methods used might have caused these subjects to choose more positive statements than would be realistic. In the commitment and obsession subscales, arrangement of positive statements might indicate that subjects in the low group view the future on the basis of wishful thinking and the methods used might have caused these subjects to choose more positive statements than would be realistic. Thus, any actual relationships of the adherence style with content of FTP might have been masked.

Study 2 therefore had subjects spontaneously list events that they want to do. The results indicated a clear relationship between the content of FTP and life feeling to some degree. Adolescents with positive life feeling set more “study and entrance to a higher grade” projects to obtain employment and displayed more interest in “physical appearance and love” projects. Conversely, adolescents with negative life feeling distracted themselves from such feelings by basically listing the more “new experience” projects.

These results suggest that the event tests in which subjects spontaneously list the events that they want to do are effective in investigating relationships between content of FTP and mental health. However, the indices of mental health differ between Study 1 and 2. These results might therefore reflect differences in indices of mental health rather than differences in methods that measures content of FTP. The effectiveness of events tests must therefore be investigated by focusing on adherence style and investigating relationships between content of FTP and this variable, using an event test in which subjects listed spontaneously the events that they want to do.

Previous theory has proposed relationship between well-extended FTP and well-adapted personality and mental health. However, in Study 1, the hypothesis was supported only in the apathy and escape subscales. Furthermore, the results of Study 2 appear contrary to this hypothesis in both the independence and self-reliance, and trust and time perspective subscales. Thus, no clear relationship has yet been identified between future extension and mental health. Further research is needed to better understand the present results.

No clear relationship was found between mental health and future orientation. In Study 2, adolescents with positive life feeling displayed more future orientation in each subscale. Conversely, in Study 1, neither adolescents with higher level of obsession and higher sense of commitment nor adolescents with lower sense of non-commitment displayed greater future orientation than the groups on the other end of their respective subscales. Thus, no clear relationship was found between mental health and fu-

ture orientation.

In contrast with the cognitive aspect of FTP, mental health displayed stronger relationships with affective aspects such as hopefulness and belief aspects such as sense of external control. In Study 1, adolescents with higher level of obsession and higher sense of commitment displayed a higher sense of hopefulness. Likewise, adolescents with lower sense of apathy and escape and non-commitment had a higher sense of hopefulness and a lower sense of external control. In Study 2, adolescents with positive life feeling had a higher sense of hopefulness and a lower sense of external control in each subscale for life feeling. Thus, the results for hopefulness and sense of external control appear logically interpretable and reasonable.

In conclusion, mental health appears to display stronger relationship with the affective and belief aspects of FTP than with the cognitive aspect. Further research is needed to investigate which component of the three FTP displays the strongest relationship with mental health.

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