

Authoritarian Conservatism and Health Locus of Control in Elderly Japanese People

Tomoo NAKATA

Frameworks in Sociology of Health changes, from measuring effects of social structure on mortality using aggregation data, to explaining health mechanism using psychological variables and, recent terms such as culture, the bodies and the body consciousness. In psychological perspectives of analyses, there is enormous research examining the relationship between health and personality traits. In sociology of body approach, Turner (1996) argued that government of bodies and attitudes toward the body are associated with social structure. And Shilling (1993) clarified processes of inequalities through bodies in relation to concepts of physical culture derived from Bourdieu's theories. But little is discussed about how these two approaches are related.

Health Locus of Control (HLC) (Wallston et al., 1976) is a typical scale in psychological approach. HLC is a subordinate concept of 'Locus of Control'. Rotter (1966) noted, based on the social learning theory, locus of control as a belief to the extent of how much the person can control the circumstances. If people perceive that the event is conditional on the result of supernature, or chance, then it is a belief in external control. And If they perceive that the event is conditional on their responsibilities, then it is a belief in internal control. Therefore at the first stage, the concept of Locus of Control was measured that belief as a continuum from internal control to external control. After that locus of control developed to multidimensional scales and many kinds of sub-concepts. Especially because it is found that the relationship between locus of control and physical health was very interesting, for prediction of individual health, particular scales of locus of control about health were constructed. Health locus of control is a scale to measure the extent of reinforcement about health. Wallston et al. (1975) constructed internal-external scales about health. And after that many researchers have tried to find every dimension of this scale as Wallston et al. (1978).

As Strickland (1978) indicated, there exists much leading research examining the relationship between health behavior and locus of control or HLC, since Seeman and Evans (1962)'s article. For example, Seeman and Seeman (1983), which assumed HLC as a concept includes personal mastery and luck denial, verified the links between preventive health behavior and HLC using the data derived from a large sample.

On the other hand, HLC has also been argued in context of aging. Rodin (1986) and Rodin and Timko (1992) pointed out that aging is associated with control of health. They discussed this as follows. First elderly people are exposed to various social and individual

events related to health, directly or indirectly. Therefore being old tends to increase their control about health. Second, aging leads to bad health. And poor health status makes elderly people get close to medical care and health related activities.

Health control among Elderly Japanese people

First, I must ask how they get in the notion of control in general. As mentioned above, as to the health psychology, HLC is illustrated by the social leaning theory. It presumes that reinforcements, that is individual conditions and events, form control.

Lau (1982) considered that long-term illness, a personal one, or a very recent one would be a factor to reinforce the HLC beliefs. But if the beliefs are stable, it is possible that not recent experience but good habits for health taught by their parents affect their later beliefs concerning health (p.323). And he studied the effects of socio-economic status (SES) as family characteristics and having a medical professional in the family on HLC beliefs. He concluded that SES has a positive effect on health beliefs, but having a professional doesn't.

Certainly, from the standpoint of sociology, it is social structure that builds the notion of control. In other words, how do personal knowledge and beliefs provided from different cultures or education vary and change? This problem spills over whether experiences and resources are accumulated in a personal life and Bourdieu (1984) 's discussion about Cultural Resources.

There may be two problems to cover social structure. These are cohort and culture.

It is subject to young people that Wallston et al. (1975) proved the reliability of HLC scale. However it is not evident whether this scale is reliable at every cohort. For example, it is reported Locus of Control, a superordinate concept of HLC, failed in scale reliability when it was measured subject to elderly people. Shewchuk, Foelker, and Niederhe (1990), through confirmatory factor analysis, found Levenson's Locus of Control scale wasn't appropriate to use with elderly people. It is natural that individuals control against their events differ from both time and their culture. In this context, it is especially important why views of body and health vary at different cohorts.

Secondly, there is also a problem concerning culture. I use culture as different attitudes about health in various countries. According to the results of Horike (1991), it is shown that Japanese students have the same HLC notions as Western young people. But Elderly Japanese people internalized quite different views about religion, nature and body, as mentioned below. Therefore it is very interesting whether current generation of Elderly Japanese people have different HLC notions, the same as both Western and Japanese students.

The question I have to ask is what influences Elderly Japanese people to reinforce their control about health. First, there are many individual events. And to an extent elderly people suffer poor health. These are cited in many HLC studies subject to Western elderly people. Second, I must consider Japanese culture as social structure. The 'ie system (patriarchal family structure) ' and community spirits that existed in prewar times, and a religion that is mixed Buddhism and Shintoism, are particular to Japan. Elderly Japanese people were

exposed to those conditions or, they have been educated under conditions that influenced such ideologies and have fostered their ideas about health and bodies. Hence, to examine how personal notions of control are gone into, it is necessary to test whether the current generation of Japanese elderly really had scientific and rational ideas about health.

Social Structure and Authoritarian Conservatism

To measure this ascientific consciousness and attitude, a traditional concept in sociology, 'Authoritarian Conservatism' is popular. Authoritarian conservatism was known as social personality including obedience to authority and conventionalism. Adorno (1950) and Lipset (1959) analyzed this concept as ethnic prejudice and support for totalitarian political movements. And Lipset (1959) described factors about authoritarian predisposition as 'low education, low participation in political organization or voluntary organization of any type, little reading, isolated occupations, economic insecurity, and authoritarian family structure' (p.489).

Recently, another interpretation proposed about this concept differed from personality characterized groups. Kelman and Barclay (1963) proposed this concept as a measure of the breadth of a person's perspective. And Gabennesch (1977) developed this as a process of reification. Kohn (1977) defined that concept as 'what is socially acceptable - at one extreme, rigid conformance to the dictate of authority and intolerance of nonconformity; at the other extreme, open-mindedness. (p.79)'. These facts mean that authoritarian conservatism presumes that it indicates not merely political attitude but personal perspective affected by social structure.

A scale measuring authoritarian conservatism is known as the F-scale. The rigidity of the F-scale has been shown in many studies. In Japan, Kido and Sugi (1954) found that authoritarian conservatism associated with social stratification. These indicate that this concept is available in many leading studies.

HLC has been used as a psychological variable. But if we modify our view, HLC results in individual view of the body, or individual principle of government of the body.

In this study, I will examine whether and how authoritarian conservatism, as well as life

Table1. Health Locus of Control Scale Items

1. "My health is in the hands of the gods".	◀S:Supernature▶
2. "The main thing which affects my health is what I myself do".	◀I:Internal▶
3. "People who never get sick are just plain lucky".	◀C:chance▶
4. "My family has a lot to do with my becoming sick or staying healthy".	◀F:Family▶
5. "Health professionals control my health".	◀Pr: Professional▶

(n=379, $\alpha = .54$)

events and poor status of health, affect control of health, and health behavior via their control. Taking up that view, this means to pick up socially embedded psychological concepts from the body and to show a relationship between social structure and the body.

Data and Method

Sample

Analyses are based on data obtained from the Sapporo 1996 Study, a cross-sectional study of random sample of 488 men who were 60 and older in 1996, using data from a survey taken at Shiroishi-Ward, Toyohira-Ward, and Atsubetsu-Ward in Sapporo, Japan. (Nakata, 1999).

Measurement

Health Locus of Control (HLC). Horike (1991) identified five dimensions of HLC using data from 328 Japanese students through factor analysis : Supernature (S), Internal (I), Chance (C), Family (F), and Professional (Pr). Following her study, I measured each subscale using one arbitrary item per head because five items of each scale selected by Horike had very strong correlation to each other. These items are indicated in table1. The response anchors include whether they 1='disagree strongly,' 2='disagree somewhat,' 3='neither agree nor disagree,' 4='agree somewhat,' 5='agree strongly.'

Authoritarian Conservatism. An index of Authoritarian Conservatism composed of 7 items appears in table2. And Figure1 shows the result of confirmatory factor analysis. This index constructed from the general F-scale is popular in Japan. The response anchors were the same as HLC.

Marital status. In this study, I used 'marital status to measure a kind of life events. A loss of a respondent's partner in life may be a reinforcement about health. Marital status coded

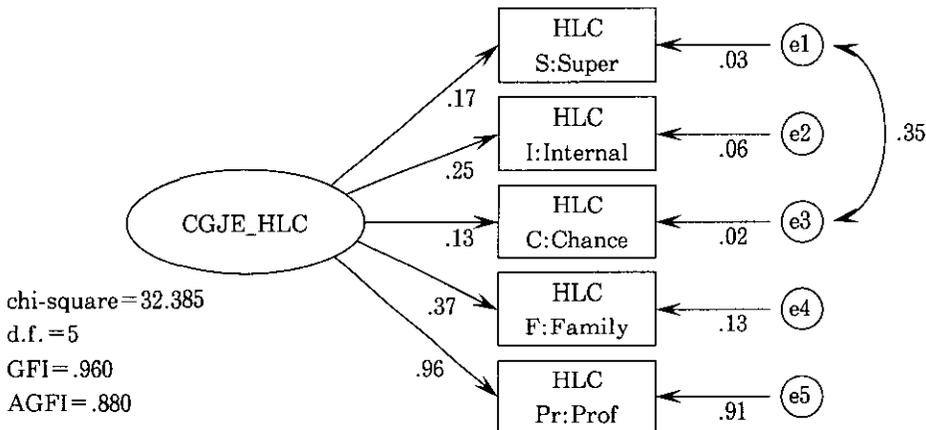


Figure1. The Result of Confirmatory Factor Analysis of Current Japanese Elderly people's Health Locus of Control

(Standardized coefficients are presented.)

Table2. Authoritarian Conservatism Scale Items

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1. "It generally works out best to keep on doing things the way they have been done before".
 2. "One should always show respect to those in authority".
 3. "In this complicated world, the only way to know what to do is to rely on leaders and experts".
 4. "Any good leader should be strict with people under him in order to gain their respect".
 5. "People who question the old and accepted ways of doing things usually just end up causing trouble".
 6. "Young people should not be allowed to read books that are likely to confuse them".
 7. "There are two kinds of people in the world: the weak and the strong".
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(n=367, $\alpha = .77$)

1 for bereavement, and 0 for married and single people.

Self-reported health. Self-reported health is also a variable in order to examine the hypothesis derived from the social learning theory. I presumed that an effect on individual control relies on not objective evaluation but a subjective one. Hence I used an index of self-reported health, that reinforces their control behavior about health asking 'Are you satisfied with your health?'

Healthy Lifestyle. As a result of self control, I used 13 individual activities about health indicated in table3. Healthy lifestyle was coded as how many healthy activities respondents

Table3. Healthy Lifestyle Scale Items

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1. light exercise
 2. daily life
 3. eating regularly
 4. having a sleep
 5. keeping clean
 6. doing without motorised transport
 7. balanced diet
 8. doing without sugar and salt
 9. eating health food and taking medicine
 10. gargling and washing hands
 11. avoiding alcohol, tobacco, coffee, and other luxury items
 12. bathing in lukewarm water
 13. health check-ups
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(n=461, $\alpha = .79$)

are usually doing. These activities, that are popular activities for health in Japan, are as follows; light exercise, daily life, eating regularly, having a sleep, keeping clean, doing without motorized transport, balanced diet, doing without sugar and salt, eating health food and taking medicine, gargling and washing hands, avoiding alcohol, tobacco, coffee, and other luxury items, bathing in lukewarm water, and health check-ups.

Education. Education was coded as the number of years of education respondents have completed. This variable is used to examine an effect of social stratification. Most research usually uses respondents' income and/or occupational prestige as an index of social stratification. But occupations have changed over time, so I couldn't use this. Therefore I used years of education as an index of social stratification so that education may have a strong correlation with occupational order.

Age. Age was coded as respondents' age. As mentioned above, the population of this study was Elderly Japanese people. Hence in some sense, population was already controlled concerning age. But because elderly people's health declines as they become older, I should use age as a control variable.

Results

Reliability of HLC scale applying to Japanese elderly.

First of all, I have to inquire into the reliability of HLC as a scale applying to the current generation of Elderly Japanese people, since I find it dubious that Japanese who were educated in the immediate postwar days have the same value consciousness as the current generation of Japanese young people.

Table4 shows the correlation coefficients matrix of five sub-concepts of HLC scale. I will compare this table with leading studies of HLC. Wallston et al. (1978) and Horike (1991), the population of these studies are similar college students, report the same conclusion; sub-concept Internal (I) and Powerful Others (P) have negative correlation; Internal (I) and Chance (C) have no correlation; and Powerful Others (P) and Chance (C) have lower positive correlation. It is appropriate to translate that sub-concept Internal (I) in their study is

Table4. Correlation coefficient Matrix of HLC Scale Items
(n= 379)

	I	S	C	F	Pr
I	1.00	.05	.10*	.33**	.23**
S	.05	1.00	.36**	.16**	.14**
C	.10*	.36**	1.00	.14**	.08
F	.33**	.16**	.14**	1.00	.33**
Pr	.23**	.14**	.08	.33**	1.00

**p <.05; *p <.01 (two-tailed test)

the same as Internal in this study, Chance (C) is the same as Chance (C), and Powerful Others (P) is the same as Supernature (S), Professional (Pr) and Family (F). Correlation coefficients matrix of this study, table4, indicates sub-concepts have strong positive correlation to each other. This table suggests that the current generation of Elderly Japanese people believe in supernature as well as medical science.

Figure2 is a result of confirmatory factor analysis modeling HLC. Concept of Health Locus of Control in current generation of Japanese Elderly consists of positive contribution of all five sub-concepts. Factor loadings for sub-concepts denying self-help, sub-concept (S) and sub-concept (C), became negative in Lau (1982). In this figure, all the factor loadings are positive. And the fit of the model is very good. I labeled this particular concept for Japanese elderly persons as Current Generations' Elderly Japanese people Health Locus of Control (CGJE_HLC).

It is essential to discuss this result. The primary concept, HLC, has at one extreme, internal control, and at the other extreme, external control. But I can't apply this concept to Elderly Japanese people. The result of these analyses clearly shows that HLC is unreliable as a scale applying to the current generation of Elderly Japanese people.

HLC and Authoritarian Conservatism.

As analyzed in the above paragraph, it is shown that the current generation of Elderly Japanese people have a different HLC notion from young people in both the USA and Japan. In this paragraph, I'll discuss what affects CGJE-HLC.

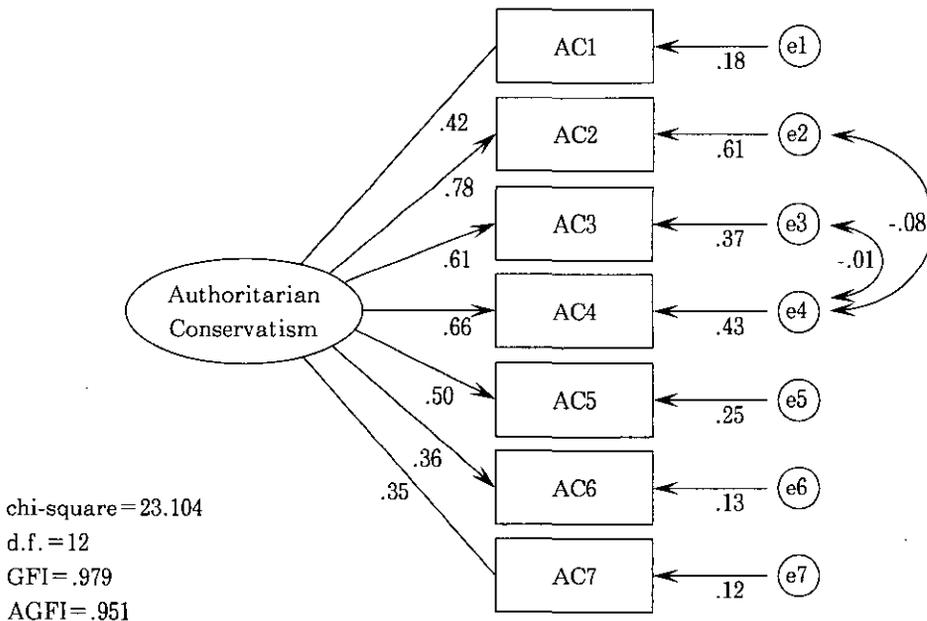


Figure2. The Result of Confirmatory Factor Analysis of Authoritarian Conservatism (Standardized coefficients are presented.)

Table5. Multiple Regression Analysis of Sub-concepts and Overall concepts of CGJE-HLC on Authoritarian Conservatism, Self-reported health and loss of Spouse (n = 361)

	I	II	III	IV	V	VI
	(S)	(I)	(C)	(F)	(Pr)	overall index CGJE-HLC
Authoritarian Conservatism	.261**	.163**	.234**	.128*	.220**	.269**
Age	.071	.017	.139*	.008	.090	.068
Education	.113*	.016	.175**	.079	-.035	.084
Self-Reported Health	-.050	-.057	.059	-.060	.011	-.049
Loss of Spouse	-.011	-.065	.049	-.134*	-.139*	.140*
F	6.11**	2.29**	7.70**	2.91*	5.78**	7.44**
R ²	.088	.035	.108	.044	.084	.105

**p <.05 ; *p <.01(two-tailed test)

I showed that each sub-concept has strong and positive relationships. These may mean that it makes no difference between internal control and external control. To say a long Rotter's context, Elderly Japanese people don't recognize supernature or chance as external control though that notion never associated with their will and behavior. It is likely because Japanese elderly are fatalistic about their health and related matters, and they don't have an idea that they are under the control of powerful others. These notions can be measured by authoritarian conservatism.

Table5 shows results of multiple regression analysis, how each sub-concept of HLC and overall-index of CGJE-HLC are affected controlling age and education. Independent variables are authoritarian conservatism, life events and self-reported health. Authoritarian conservatism is an index of social structure, and the latter two are variables derived from psychological hypothesis.

In this table, I used each sub-concept of CGJE-HLC as dependent variables from model I to model V. In all these models, authoritarian conservatism has strong, positive effects on sub-concepts. But the effects of self-reported health are insignificant. On the other hand, the loss of a spouse has an impact on family control (F) and professional control (Pr). These are kinds of external control in primary HLC notion. It suggests that particular life events reduce external control.

And what is difficult to translate is that years of education affect positively external control, (S) and (C). It may indicate a tractable disposition in high educated people.

Model VI is a regression model, its independent variable is overall index of CGJE-HLC. This model tells almost the same result as the sub-concepts.

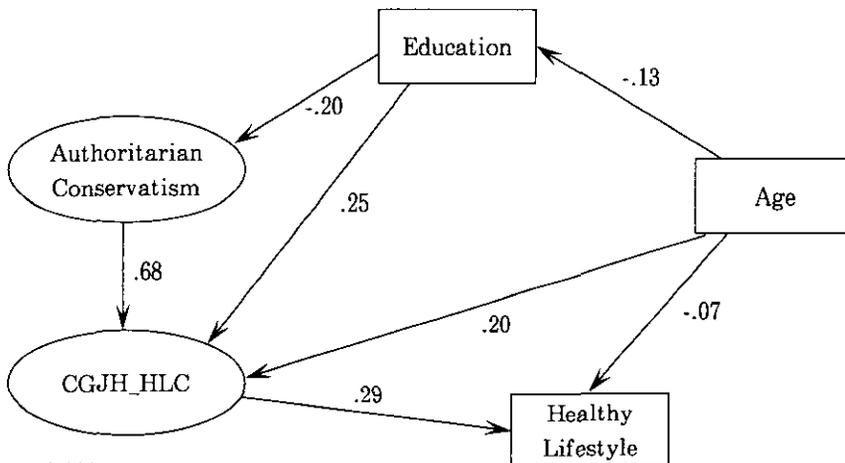
Overall Structure of Health.

Finally, I will illustrate how those variables analyzed above have an effect on health behavior through a non-recursive path analysis model.

Figure3 is a model using CGJE-HLC factor scores derived from confirmatory factor analysis. In this figure, authoritarian conservatism doesn't have a direct effect on health behavior, or an effect via CGJE-HLC, indirectly. Education also doesn't have a direct influence on health behavior. This means that the impact of social stratification on health behavior is intermediate. In this figure, self-reported health and the loss of a spouse were removed from the model because of their non-significant effects and to get models to fit better.

In order to make sure that each sub-concept of HLC and the overall index of CGJE_HLC have an effect on Healthy behavior, a model that sub-concepts of CGJE-HLC fit in individually presents in figure4. It appears authoritarian conservatism affects every sub-concept of CGJE-HLC. And although education has an effect on every sub-concept directly, it affects every sub-concept via authoritarian conservatism. (Though this is a different result from multiple regression above,) An existing effect of authoritarian conservatism on control of family (F) in despite of their education, may tell us it is normative that children have esteem for their parents. Three sub-concepts, (I), (C) and (P), affect health behavior, and the others do not.

In both figure3 and figure4, self-reported health and the loss of a spouse are removed from the model because of their non-significant effects and to get models to fit better.



chi-square=140.392
 d.f. = 79
 GFI= .945
 AGFI= .916

Figure3. Non-Recursive Path Analysis fitting an overall index of CGJE_HLC

(Standardized coefficients are presented.
 Errors, correlation of errors, and indicators of latent variables are omitted.)

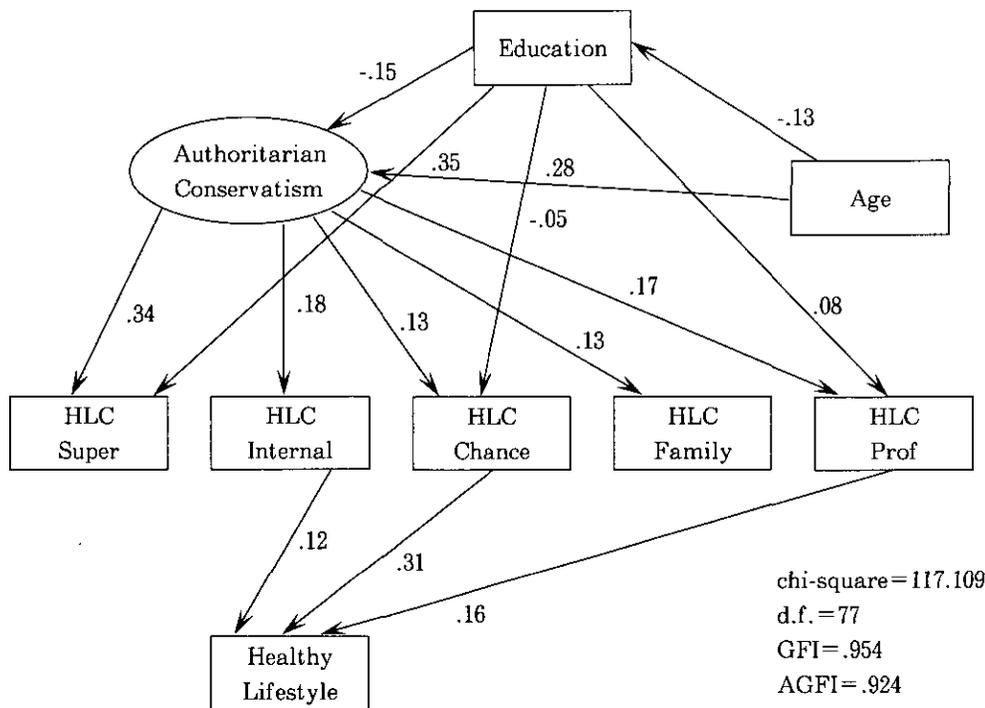


Figure4. Non-Recursive Path Analysis fitting each concept of HLC

(Standardized coefficients are presented.
Errors, correlation of errors, and indicators of
latent variables are omitted.)

Summary and Discussion

In conclusion, (1) the current generation of Elderly Japanese people have an ascientific belief, especially they even depend on supernatural notions, as factors of health. The fact that a primary concept of HLC, at one extreme, internal control; at the other extreme, external control, can not be measured from Japanese elderly suggests that HLC is unreliable as a scale. (2) Locus of control on health among Elderly Japanese people was caused by authoritarian conservatism. (3) Authoritarian conservatism and Education affect healthy lifestyle intermediating Japanese elderly's HLC. Self-control about health, including ascientific factors, has a positive effect on healthy behavior.

Lipset (1959) argued that the sources of authoritarianism are low levels of education, economic insecurity, and authoritarian family patterns. Though these circumstances are in part applicable to the population of this study, they were exposed to postwar's democratic education for most of their school days. And they were poor in their childhood. However they carried out high economic growth in postwar Japan and enjoyed good life economically. The most important part of this argument is that not in their adult life but in their childhood, respondents experienced ascientific or authoritarian education, and strong discipline and poverty.

As 'the child is father of the man', a Japanese proverb, the discipline they received built their attitude toward health, and they retain an ascientific attitude up to adulthood. In the short run, they experienced every life event and got every disease. Whereas I recognize the importance of those, it is clear that the breadth of perspective affected by social structure has a stronger effect on their control on health, than individual events in the current generation of Elderly Japanese people.

Many points still remain for debate. First, I measured Health Locus of Control for each of five sub-scales using one arbitrary item per head, based on Horike (1991) that made an analysis of data collected from students. This is because I didn't expect the factor structure of HLC in Japanese elderly to vary from that of Japanese young people. But it is necessary to confirm what kinds of factor structure Elderly Japanese people have.

Secondly, Some researchers discussed agreement bias concerning a health locus of control scale (Mirowsky and Ross, 1991). They picked up two concepts from HLC scale, and translated one as agreement bias and the other as HLC. As Mirowsky and Ross identified using American data, I will be able to examine from new data obtained from a survey conducted in summer 1999 whether agreement bias among elderly Japanese people exists or not.

At last, does this result show the peculiarity of Japanese elderly? And in fact I didn't prove that this result is due to "a cohort effect" as I presumed. It is impossible to conclude that unless I work out a longitudinal survey.

The main point of this study was that the current generation of Elderly Japanese people had a belief concerning both self-control and ascientific factors and that belief facilitated their health behavior. And their belief involving health behavior was built up by socially-constructed thought. If I make an interpretation of this phenomenon based on sociology of the body, they had a political body as Turner (1996) and Outram (1989) mentioned. And this may be a legacy of Japan's complex history through the process of modernization.

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[Abstract]

Authoritarian Conservatism and Health Locus of Control in Elderly Japanese People

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The aim of this study is to examine the relationship between ascientific traditional thought and health locus of control (HLC) amongst current generation of elderly Japanese people.

In general, it has been suggested that old age is associated with HLC and health behaviors through learning experiences. Though elderly Japanese people have unique views about health, they come under an influence of education and child discipline which they had learnt as a child. It is questionable that Japanese elderly have HLC notion or not. In this study I examine that elderly Japanese people have HLC notion similarly to Western people as shown by many leading researchers, and how those ascientific thought that are measured by Authoritarian Conservatism affect HLC and health behaviors.

Analyses are based on cross-sectional study of a random sample of 461 men who are 60 and older in 1997, using data from survey taken at Sapporo, Japan,. Five sub-concepts of HLC are measured by an indicator per head. And an index of Authoritarian Conservatism is composed of 7 items.

First, intercorrelation and confirmatory factor analysis of sub-scales of HLC show that elderly Japanese people believe in some ascientific concepts about self-control. Second, using non-recursive path model, I found that Authoritarian Conservatism has positive effects on health activity via HLC.

These support that elderly Japanese have different self-control notion from that of Western elderly: elderly Japanese have ascientific self-control, but these encourage health activity.