

Scientific Contribution

Reconsidering “health” from the perspective of “system”: Health as desire and way of life for people of advanced age

Naoki Morishita

Hamamatsu University School of Medicine

E-mail: namo1953@hama-med.ac.jp

Abstract: Why has the concept of health become vaguer? And why is the meaning of health presently undergoing radical change? The explanations for this increasing vagueness and radical change derive from (1) subjective feelings, (2) objective ambiguity and a tendency to calculate health according to calibrated standards, (3) systemic multiplicity in modern functional differentiated society, and (4) national limitless desire stirred by digitalized medicalization. Finally, a new way of life for people of advanced age is proposed in the context of the analysis of health.

Keywords: system, Niklas Luhmann, communication, medicalization, desire, re-aged society

Introduction

Everybody wants one’s own good health. However, the meaning of health is vague and eludes precise definition. If people are asked what

health means, many will reply unclearly.

For example, Amane Nishi, the first Japanese philosopher of early Meiji era, writes that 'health' is a means toward happiness as the ultimate goal of human beings, working together with 'wisdom' and 'wealth'.¹ Nishi locates health between illness and happiness. However, neither illness nor happiness has clear definitions, making the concept of health all the vaguer. Nevertheless, until the Meiji era, people had held various techniques and goals for good health. Today, the meanings of health have become yet vaguer and more diffuse, as the traditional views of health have disappeared.

In this article, I inquire why the concept of health is inherently vague, why the meanings of health have become yet vaguer in contemporary societies, and how views of health are presently undergoing radical change. Finally, I propose a new way of life for people of advanced age as important members of the emerging super-aged society, in the context of the present analysis of health. In addition, from the perspective of 'system' based on Niklas Luhmann's theory,² this article reassesses and summarizes the thoughts of my previous several books³ concerned with the theme of health.

1. Subjective feeling and objective ambiguity

When we seek origins of health, we ultimately come back to some impressions of physical and mental state which an individual experiences daily. This subjective feeling continually wavers between good states and bad states. If others observe the person who experiences such variations,

he or she seems at one moment animated, lethargic, perplexed, pensive, and so forth.

Behind the changeable variety of feelings are discrete whole states of the living organism. These whole states also are changeable and variable, restoring themselves continually to a certain level. However, we are rarely consciously aware of that level, which we may call ‘the biological norm’,⁴ though we are often consciously aware of good or bad states. This level of whole state varies among individuals and changes as the individual ages.

Subjective feelings are notoriously variable and differ for each individual, time, or place; nevertheless, certain standards are continually demanded. Biological norms expressing common measures lying behind the variable feelings have been discovered, and common measures have been postulated. We presently have two kinds of standard.

The first standard focuses on the living system within living organisms from the medical perspective. This is based on the distinction of ‘normal/abnormal.’ The second standard focuses on daily life behaviors from the sociological perspective; this standard is based on the distinction between ‘able (competent)/unable (incompetent).’

Certainly, both of these standards purporting objective measurements seem to be useful for comparison and generalization. However, the standards are ambiguous and oversimplified. In the case of the former measurements, the standard values change as a population parameter changes. The values also vary among related special fields, such as that of metabolic syndrome. In the case of the latter measurements, ability varies in relation to goals set by particular groups

living under certain circumstances. As well, goals and abilities change with time and individuals.

Such objectifications actually produce ambiguity and make health vaguer. Further, attempts to objectify health by set standards even causes a 'reverse' situation as people excessively depend on the special standards and lose self-confidence in their own feeling of health.

2. Systemic multiplicity

Calculating one's health according to calibrated standards is too commonplace today and is expanding in popularity. However, why is this trend so common and popular? This question is best answered when a whole society, including various functional differentiated systems, is considered. Let's review the calibration problem from the perspective of "system," the starting point of which is communication.

2.1. Communication

There are two competing theories of ordinary communication among human beings. The first type is the 'information-transmission', which is mathematically formulated by Shannon and Weber. The components of this type are integrity of server of information, guarantee of single meaning, and certainty of understanding. According to this idea, misunderstanding is aberration and should not exist. The second is the 'meaning-interpretation' theory proposed by Niklas Luhmann who succeeds to the writing of Alfred Schütz. The basics of this theory include dependence on the receiver of information, multiplicity of meaning, and

difficulty of mutual understanding. As a result, misunderstanding is considered normal.

Although the information-transmission theory enjoys widespread popularity, it is an over-simplified account of the communication process among humans. The essentials of human communication of the meaning-interpretation theory more accurately describe the communication process. The ‘sympathy-structure’ expressed in A. Smith’s “The Theory of Moral Sentiments”⁵ illustrates how the meaning-interpretation theory more accurately depicts the human communication process.

In face-to-face communication, people are both actors and observers, respectively. As well, there are other third-party observers, outside the immediate communication. Firstly and immediately, in a dyadic exchange, each person observes the other’s expressions and gestures (and the other’s mind, through them). Next, through an imaginary exchange of standpoint, each person constructs an image of his or her own expressions and feelings. Finally, each person respectively compares the two observations, to determine if there is agreement or disagreement.

If there is any mistake in the sympathy-structure above described, then the mistake derives from the assumption that one’s observation of another’s expressions is somehow objective. According to Lumann, who also pays attention to the inside-comparison, no necessary connections exist among information, transmission, or understanding, since any connections occur inside observer’s mind only. Therefore, any communicator possesses two self-interpretations, namely, a communicator’s interpretation of another’s mind through expressions and

gestures, on the one hand, and his interpretation of his own mind, on the other hand.

Meanings interpreted independently by each person connect each communicator. As a result, diverse meanings multiply and misunderstandings occur. We could say that misunderstanding drives communication. Also, communication leads from one misunderstanding to another. This continual process of comparing and contrasting the changing images of oneself and of the other's expressions and gestures is called understanding. As a result of this continual process, communicators transform themselves.

Fragments of meaning-connection are gradually arranged through communicators' shared expectations. From these arranged fragments of meaning, patterns emerge, and finally structure. When a certain structure restricts particular connections, a system comes into existence. 'System' is established whenever any structure is formed. Structure actually operates as 'structuring connections' and, in the case of disconnections, 're-structuring structure', repeating as needed.

2.2. Human system and social system

Generally speaking, 'system' entails a discrete circulation of various bits of information connecting with their own peculiar and particular distinctions (or marks), which are capable of transforming outside stimuli, to produce or reflect, self-referentially, the same connections.

Although this circulation is 'closed' regarding the peculiar and particular distinction, the system is also 'open' to various stimuli that unceasingly affect the system itself. A system forms itself when

system/environment (namely self/other or inside/outside) is established simultaneously. Though self-contained, system is also contingent and has at any time complex choices of connection, in compensation for outside necessary connections. As a result, system produces structure as a certain constraint condition to stabilize and simplify complex connections. Since simplifying repeatedly produces much more complexity, structure recursively produces higher-orders of self.

The human system has three different internal systems: molecular biological system, living organic system, and self-conscious (namely thinking) system. What is connected and reproduced are proteins with particular marks in the case of the molecular biological system. There are also mental images (sensations, affections, or desires) in the case of living organic system, and meanings of symbols, in the case of self-conscious system. The former distinctions are transformed to the latter distinctions, so that tree systems operate in their isomorphic way (Figure 1).

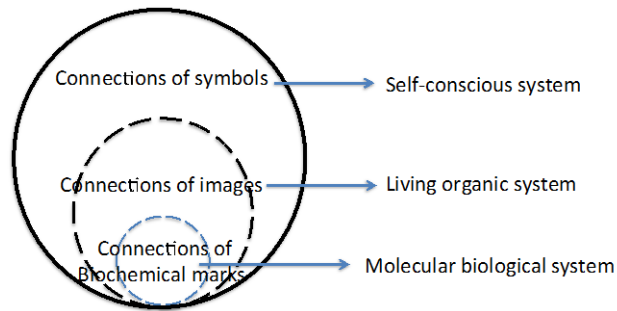


Figure 1 : Human system

A human system exchanges information with another human system. As far as this mutual exchange (communication) can form a circulation, a social system comes into existence. A social system is originally a 'face-to-face communication.' Secondly, it is 'organization' when face-to-face communications connect, in complex manner, with certain commonly shared goals. And thirdly, a social system is a 'functional system,' when one function becomes independent, with its own distinction from undifferentiated totality. A contemporary society in its entirety includes all the social systems, especially containing mutual connections among functional differentiated systems (Figure 2).

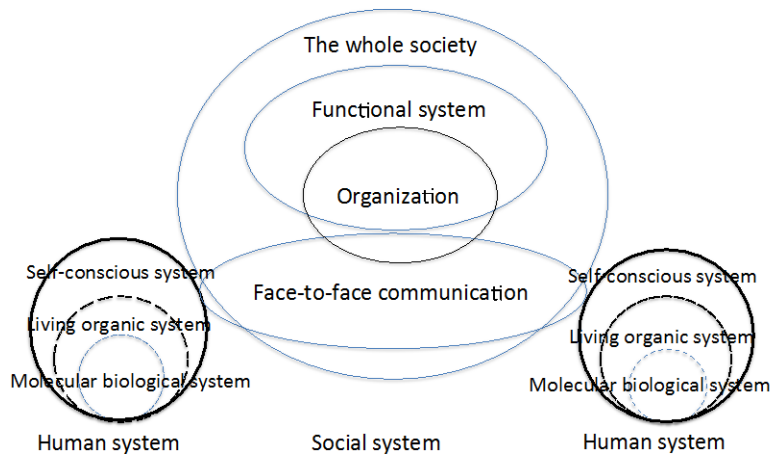


Figure 2: Human system and Social system

In the whole society, the resulting effects/burdens expressed by one functional system affect not only other functional systems, but also all larger social systems, through the amplifying media of mass-communication. As well, when structural operations cannot treat the effects/burdens, the idea system (ideology), as recursive structuring, intervenes to reconstruct the ‘problem’ and propose a ‘resolution.’

2.3. Multiple systems within and outside of human system

Within this communication framework, we begin to explain the tendency to calculate health according to calibrated standards.

The molecular biological system is a self-referential system and maintains itself through recursive structuring. This is the reason why the whole biological state sways continually between good conditions and bad

conditions, restoring itself to a certain level. Therefore, 'health' for a molecular biological system or living organic system translates to this recursive structuring of system.

When abnormal disconnections occur inside a molecular biological system, they cause recursive structuring, which gives rise to the feelings of bad conditions in a living organic system. As well, within the self-conscious system, those inside abnormal states and feelings of bad conditions are transformed and interpreted through external, established meanings of social systems.

Most importantly, this transformation and interpretation is itself multiple and recursive. Regarding both distinctions of 'normal/abnormal' and 'able/unable,' standard values differ among institutions or societies belonging to a medical system. Furthermore, the nation-state of political system intervenes actively when significant differences occur; this intervention depends on economic conditions within the society as well as public opinion. Finally, this complicated situation is oversimplified through mass-communication.

As a result, receiving and crossing multiple meanings, the individual becomes nonplussed and inevitably considers health a concept with ambiguous meanings reducible to calculation, so that he or she loses self-confidence on his or her own health.

In addition, we can also clarify metaphorical uses of health from the same perspective of system. Structures and their recursive operations appear isomorphic in the context of human and social systems. This is the reason why people consider their health as analogous to moral aspects of their self-conscious connection, as well as analogous to ethical aspects of

their face-to-face communication. The use of analogy applies also to restructuring an organization or a functional system, as well as reforming the whole of society. For instance, people tend to speak of ‘health of society,’ and often blend health, moralistic, or politically ideological messages.

3. Medicalization and limitlessness of desire

Concepts of health today are vague. Our answers derive from subjective feelings, objective ambiguity, a tendency to calculate health according to calibrated standards, and systemic multiplicity in modern functional differentiated society. Today, however, we must add the qualifier of ‘limitlessness’ to them, because our concept health changes in quality in relation to ‘desire,’ which is influenced ‘medicalization.’

Medicalization here means the circumstances in which a medical system itself changes because of the influence of effects/burdens that both scientific and technological systems effect. Consider the influence of genomics and digitalization upon a medical system’s own effects/burdens, which in turn have a great influence over all social systems.

The medical domain expands itself and includes human and social systems, for instance, in areas such as anti-aging treatment or enhancement, placement of consolers, preventive removal or protective vaccination, global medical research, needs for enrichment, or financial deficit (Figure 3).

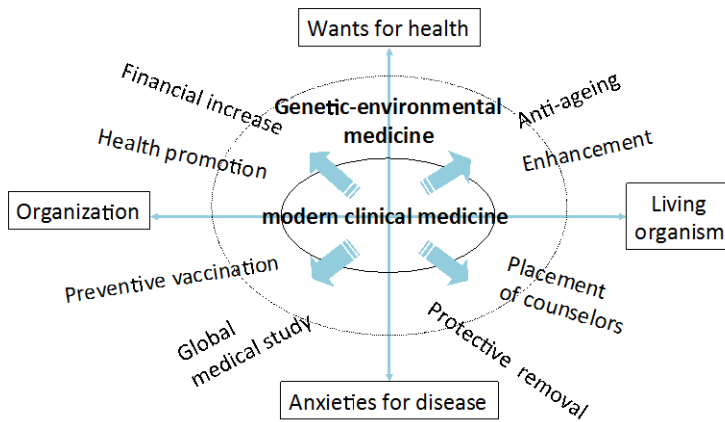


Figure 3: Medicalization

The core of this current medicalization of the social system is found in the fundamental change in the types of diseases affecting people today in technically advanced societies. In the 19th century, the typical disease was acute (infectious), so that boundaries between good and bad condition were clear and people considered health primarily at the biological level. In the 20th century, the typical disease became a chronic disease, so that boundaries between the two conditions became unclear and people tended to consider health at the psychological and social levels.

What is the typical disease in the 21st century in technically advanced societies, thanks to medicalization? A leading and distinctive feature among human ailments today is ‘genetic-environmental disease,’ which is based on probability of risk factors (Figure 4). As a result, disease has no relevance to an individual’s feelings of his or her own

physical or mental condition. The person wants or desires health, being both pushed by anxiety about future outbreak and driven by medicalization, as well as the inherent difficulties of defining the concept.

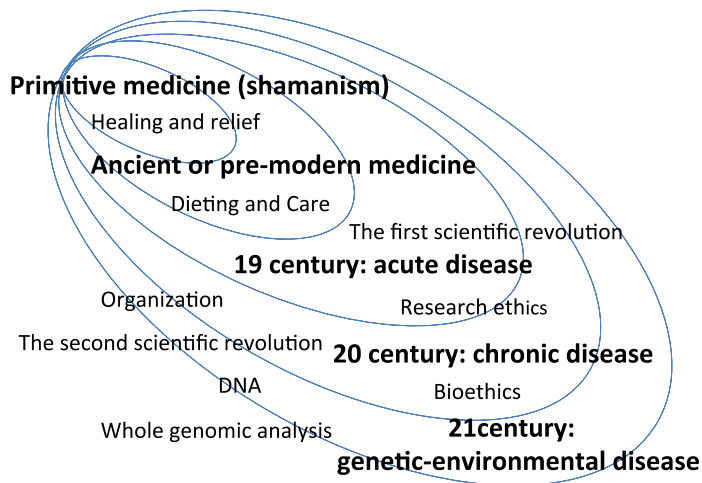


Figure 4: The growth rings of medical system focusing on the typical disease

Today, a definition of health is qualified by limitless desire. Health, as desire fulfilled, essentially comes close to happiness. However, health defined as desired fulfilled (happiness) will accelerate medicalization, not only at individual level, but also at the national level, given the limitless boundaries of what humans may desire, such as life extension and sustained vigor.

4. Ways of life for the advanced age generation

If health as desire expands without limit at the national level, then

the future of our coming advanced aging society seems to be terribly dark. This dark forecast derives from a paradox. A society's needs must be simultaneously met and yet restrained. Further, the society's members must assist those who are, over time, systematically excluded from most or all of the functional systems. This ternary task (trilemma) is extremely difficult to effect in technically advanced societies.

People tend to expect any solutions to the medicalization of their society from political systems and nation-states. This expectation is both excessive and impetuous; in response, politicians make only softly verbal promises, and bureaucrats dream up desktop plans.

At present, a central concept of a modern social policy is 'self-help.' This concept finds application in the "Health Promotion Law"(2002) and "Health 21" in Japanese domestic policy. It also applies declarations (1948, Ottawa1986) issued by WHO and several attempts to redefine the concept of health.⁶ As a result, through word-of-mouth or mass communication, people try many methods of dieting, eat various health foods, or excise in or out of doors.

People of advanced age are now expected to switch from a passive way of life of retiring and receiving care to the individually positive way of life of taking care of oneself and enjoying. However, relying on individual endeavors of 'self-help' has limits in relation to the medicalization of society as a huge and still current movement in the whole society. Therefore, we need to develop an intergenerational policy, at the same time.

The most promising vision for a socially active way of life for all generations would include people of advanced age, often richly endowed

with life experience and wisdom, helping younger generations as far as they can. Concretely speaking, people of advanced age can in many cases mutually take care of each other, yet they can also assist younger generations, for instance, in the area of childcare, education, industry, or culture. By doing so, people of advanced aged would help re-integrating all generations, thus reversing the systematic exclusion of vulnerable people in general from organizations and functional systems.

The whole society in which various social activities of people of advanced age are structurally connected to other generations and their own, can be called a ‘re-aged society.’ This term of ‘re-aged’ does not mean a ‘mature’ or ‘perfected’ expression of life in the teleological connotation. However, ‘re-aged’ means that people of advanced age continue to recursively consider themselves, even at a late stage of life. This recursive consideration would give added significance to a person’s life-process as a whole. At the level of the whole society, ‘re-aged’ would mean that a super-aged society recursively considers itself; that is, the older generations act as mediators among the same aged generation or younger generations. As a result, sages or experiences of the elderly can activate the whole society in a more structured manner. It is expected, for example, that this support can supplement the multiplied and weakened nuclear family-function.

In conclusion, this re-aged society as described attains great importance, not only because this socially active way of life of the people of advanced age empowers them to maintain their own good health, but also because it solves the paradox at the national level. Though this solution would only move a paradox to another paradox, this movement

would reproduce a higher-order structure and one that can be sustained.

Notes

¹ Amane Nishi, The theory of three treasures in life (1875). In: *Amane Nishi's Collected Works*, vol.1, pp. 514-554, Munetaka Publishers, 1960.

² Lumann's main theoretical books are as follows: *Soziale Systeme*, Suhrkamp Verlag, Frankfurt am Main, 1984; *Die Gesellschaft der Gesellschaft I&II*, Suhrkamp Verlag, Frankfurt am Main, 1997; *Einführung in die Systemtheorie*, Carl-Auer-Systeme Verlag, 2002; *Einführung in die Theorie der Gesellschaft*, Carl-Auer-Systeme Verlag, 2005.

³ My main books are as follows: *The Desire for Health and "Ease-ness,"* Aoki Publishers, 2003; *On the Nature of Health*. Japanese translation of the same title book by L. Nordenfelt (Kluwer Academic Publishers, 1995), Jikuh Publishers, 2003; *Disease/Health*, in: *Basic Concepts of Bioethics* (Bioethics series vol.2), Maruzen Publishers, 2012, pp. 88-107.

⁴ G. Canguilhem, *Le normal et le pathologique*, Quadrige PUF, 1966, p.77.

⁵ A. Smith, *The Theory of Moral Sentiments*, Section 1-1 Of Sympathy, 1759 (1st).

⁶ For example: Aaron Antonovsky, *Health, Stress and Coping*, Jossey-Bass Inc Pub, 1979; Machteld Huber and colleagues, How should we define health? *BMJ* 2011; 343: d4163 doi: 10.1136/bmj.d4163.