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The Art of Lengthening Human Life (Die Kunst, das menschliche Leben zu verlängern)

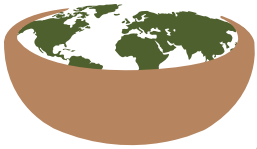
Late 19th and Early 20th Century German Diet Theories Seeking to Extend the Human Life Span

By: Sabine Merta

In Germany at the end of the 19th century health guides were written giving hints on how to lengthen the human life span. At first this kind of literature was written for the upper strata seeking methods to return to a more healthy and natural lifestyle as opposed to a dissipated life of luxury. Obesity, cardiovascular disease, diabetes and other health problems became popular topics and were interpreted as consequences of civilization. Wise sayings from Greek physicians like “More humans are killed by food than by the sword” provided a topic for discussion.

In their search to find the right medical methods to fight these increasing health problems, the authors of 19th century health guides collected diet advice and recipes as well as prescriptions from ancient medical guides. They followed the advice of the French philosopher of the enlightenment, Jean-Jacques Rousseau, “Retournez à la nature” and combined it with their own nutritional ideas. Consequently, a new generation of monographs were created about how to lengthen the life-span with titles like *Langes Leben und gesundes Alter* [Long Life and Healthy Age] ((Kluge 1910), *Gesundheit, verlängertes Leben* [Health and a Longer Life] ((Breistroff 1912), *Die Verhütung des frühen Alterns und Mittel zur Verlängerung des Lebens* [The Prevention of an Early Old Age and Methods to Lengthen the Life] ((Weber 1905), *Wie erreicht man ein hohes Alter?* [How to Reach an Old Age?](Merschnikow 1912), *Die Kunst des Essens und ihr Einfluß auf Gesundheit, Kraft und langes Leben* [The Art of Eating and its Influence on Health, Power and Long Life] ((Möller 1924), and *Das Geheimnis, das menschliche Leben zu verlängern* [The Secret to Lengthening Life] ((Maßdorf n.d.).

How this special brand of prescriptive literature developed and how it diffused into other social groups is the subject of this

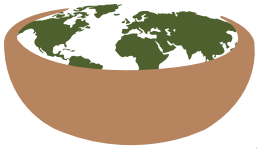


research note. The specific questions I consider here are:

- 1.) When was this variety of prescriptive literature published?
- 2.) Who was the intended audience? Were these monographs written for special groups?
- 3.) What were the motives behind these diet instructions?
- 4.) Were there the ideological implications?
- 5.) Do we find statistical material in this literature? And if so, at what period does it first occur?
- 6.) Are there recurring methods promoted regarding how to lengthen the span of human life?
- 7.) Was this health literature only a phenomenon of the period, or did it become some kind of fashion or even a movement?
- 8.) What kind of influence did scientific findings of the 19th and 20th century have on this literature?

An Analysis of Guides for Lengthening Life Expectancy

There are five different kinds of guides. First, there are manuals that instruct on how to lengthen the human lifespan with dietary advice based on the personal experiences of a physician's patients ((e.g. see Weber 1905). Second, there are dietary guides (mostly coming from New York, London or Paris) founded on new international scientific findings ((e.g. see Lorand 1909). Thirdly, there are dietary guides written by medical doctors who report on their own life experiences and give evidence about the right lifestyle drawing on examples of persons they know. ((e.g. see Hermann 1902). Fourthly, there are pseudo guides for elderly people. These are health guides aimed at a general readership but that claim to be written specifically for older people. ((e.g. see Nickolson 1869). Fifth, there are guides for older people which combine medical



Digest

a journal of foodways & culture

research and medical experiences with medical slimming cures ((e.g. see Kluge 1910).

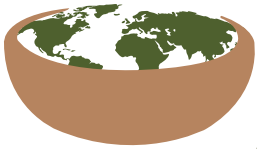
These guides for lengthening life expectancy have different structures and contents. In the book *Dietetics in Old Age* (1902), Josef Hermann, a medical doctor, defines old age, explains when you belong to this group, gives the indicators of old age, reviews dietetics in old age, and offers examples from his own life as an elderly person ((1902:10). In the chapter on hygiene in old age he writes that old age is a metamorphosis going backwards ((Hermann 1902: 41). Here he speaks about nutrition, breathing, physical exercises, care for the soul and intellectual power which help people to stay away from affliction and sickness. He believes that either a vegetarian diet or one that includes meat combined is permissible as long as the individual follows the rule of moderation that is a must in old age. Meat consumption should be limited because cell and body metabolism are much slower. After eating a lunch with a little bit of meat, one should have no meat or eggs for dinner. If you are hungry in the afternoon you can drink milk, eat fruits or drink a milk coffee. Having a regular eating time and way of eating, and chewing food well as a preparation for digestion, should be observed ((Hermann 1902: 42-47). Alcohol and tobacco are forbidden. In the last and the longest chapter “Notification of My Own Life,” Hermann describes his own lifestyle and how he stayed fit by following these ways of prevention ((1902: 64-81).

The book, *The Prevention of an Early Old Age and Methods to Lengthen the Life*, by Dr. Weber starts with the sentence:

My topic is related to the theory of how to lengthen life, but is not identical. Our great teacher Hufeland has said so many good things in his *Macrobiotic* that my work seems to be unnecessary, but the emphasis on some points out of my long experience makes it original ((Weber 1905:1).

Weber’s guide begins with the prophylaxis of old age, the prophylaxis of “senilitas praecox,” ((Weber 1905: 2), or the quick getting older of organs and their functions. He references Doctor Brunton who pronounced the importance of good nutrition for healthy blood vessels, veins and lymph system organs ((Weber 1905: 2). He says for the efficiency of blood circulation, brain vessels, digestion, joints, heart and nerves, you should live according to his dietary advice. He prescribes:

Following a moderate diet will reduce the inclination for deposits to develop in the fine blood vessels, and physical exercise helps to produce an increased



Digest

a journal of foodways & culture

blood flow to all organs and of course to the brain. The fine blood vessels are forced to work harder and so their elasticity is preserved ((Weber 1905:4).

He gives practical examples based on his former patients. Then he informs readers about the different kinds of contemporary medical slimming cures, for example the German Oertelsche cure, which recommends reducing excess weight by dehydration through limiting water intake and strenuous physical exercise, the Mitchell milk cure, or the mineral water drinking cure ((Weber 1905: 15-22; see Merta 2003: 237-47). Weber bases his argument on a combination of own patients' experiences and new medical findings and slimming cures. His rules are: to keep all organs in a strong condition, to fight tendencies of sickness if they are inherited or acquired, to be temperate in eating, drinking and sexual lust, to engage in physical exercises outside in fresh air with breathing training and climbing and walking tours, to go early to bed and to get up early, to take alternating cold and hot baths combined with massage, to undertake regular work and brain training, to be aware of your moods and to fight passion and nervous fear ((Weber 1905: 87).

Kluge promotes his book, *Long Life and Healthy Age*, as public hygiene instruction for everybody. He begins his writing with Hufeland. Kluge writes down rules which should be followed if you want to live longer while staying healthy. The first chapter "To Get Old, Its Character and Its Reasons," opens with the sentence: "To get old is a normal physiological process" ((Kluge 1910:3). Here he discusses all questions about getting old, the time frame, the physiological processes, previous explanations, previous criticism, factors which help to speed up getting older, comparison between getting old and sickness, and anatomy of getting old. Kluge talks about the process of getting old very intensively in comparison with the other guides. Chapter Two is about the right diet. He criticizes Lahmann's theory that sicknesses come from the wrong mixture of salt in the blood ((Kluge 1910:59; Merta 2003:134 and supports the medical position that Voit's protein dogma is right ((Merta 2003:71, 153). He thinks eating meat is good, as long as the glands and the secretion organs are still working. Moderate meat consumption is allowed. Older people with less functional organs should avoid consuming much animal protein coming from meat. Instead, milk and cheese should be eaten everyday. Then he reports on his personal experiences with patients who lived on milk and milk products in their everyday diet. He presents Metschnikoff's theory of the body that lactose is responsible for digestive functioning. Kluge believes that milk sugar is very important for good digestion in old age and

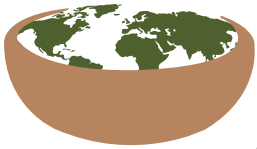


Digest

a journal of foodways & culture

pronounces the importance of lactose in milk and milk products to support digestion. He feels that you are poisoning your body if your digestion does not work properly ((Kluge 1910:71). The rest of foodstuffs such as plants, salt and spices, he declares as not so important because he believes that there is no evidence showing their influence on longevity. His nutrition rule is: “Less meat, much milk; the consumption of vegetables, cereals and fruits depends on one’s health condition and efficiency; less salt and less spices” ((Kluge 1910: 73). Concerning the quantity of food, he believes that one should never eat more than to satisfy your hunger, and he warns that over nourishment is one main factor in shortening life expectancy. After this nutrition advice, the general dietary rules follow. In his conclusions Kluge summarizes the five most important principles for a longer life: first, avoid sicknesses that you are able to avoid and do not waste too much life energy. Second, improve and care for your organs. Third, be moderate in eating, drinking and sex: “Who wants to live long, has to eat less!” ((Kluge 1910: 181). Fourth, dietary and physical exercises should be practiced. Fifth, all sickness which comes with older age should be treated early and very exactly ((Kluge 1910: 177-184). He ends his book by saying that the real picture of aged people you could find in his doctor’s office ((Kluge 1910: 184).

Nickolson, a member of the American vegetarianism movement and follower of Sylvester Graham, wrote a guide titled, *Health, Luck and Old Age or How the Human Being Should Live?* (1869). He offers emotional and moral reasons for following a vegetarian diet, sharing the scientific findings of Dr. Beaumont ((Nicholson 1869: 36, 57, 58) in New York, who made observations about the digestion of food through a hole from a gun bullet in his stomach and Dr. Burdell who did experiments on the effects of tea on rabbits, squirrels and birds. He also mentions George Combe who believed that there is a natural constitution ((Nickolson 1869: 42). He argues that his own fourteen year experience as vegetarian should be evidence enough to realize that this is the only truly natural diet ((Nickolson 1869: foreword, 35-36). His books starts with a chapter about plants as food ((Nickolson 1869:37-41). You can find all the arguments of the vegetarianism movement in this guide: in the Bible God tells people to eat plants, killing animals leads to killing humans and makes people aggressive, the human body is made to only digest vegetables, vegetables keep us healthy and positively influence our souls ((Nickolson 1869: 37-41). Tea, coffee, tobacco and alcohol are “anti vital” or life destroying ((Nickolson 1869: 42, 44,47, 54-55, 58-59). Breast-feeding mothers especially should avoid consuming these poisonous matters because of the damage they do to the health of



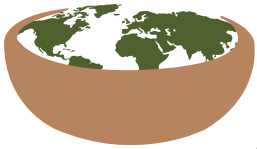
Digest

a journal of foodways & culture

their babies ((Nickolson 1869: 44-45). When Nickolson talks about the preparation of food, he instructs that vegetables shouldn't be boiled too much and made too spicy. Fruits should be washed very well in clean and fresh spring water ((Nickolson 1869: 59-60). Fresh clean spring water and a hygienic place for the preparation of vegetarian food are obligatory ((Nickolson 1869: 60-62). As a follower of Sylvester Graham, he devotes one chapter to whole wheat bread: bread always must be baked from whole wheat. The grain must be washed very well before milling. The bread should be made with very clean water by clean hands kneaded and placed in clean baking forms. Advice for bathing, physical exercise, and clothing follows. The guide ends by countering arguments against vegetarian food and is not much different from a general contemporary health guide ((Nickolson 1869: 67-72). You cannot find any special characteristics for the elderly, rather nothing is age related. That means you cannot find any hints about the changes people undergo during the process of getting old (such as slower metabolism or less excretion).

To Get Old, Its Reasons and Its Treatment, written by the Karlsbader physician Arnold Lorand, was first published in 1909 and its last edition appeared in the year 1932. Chapter One analyzes age physiologically: the change of the blood glands, thyroid glands, sex hormones, nerves etc. In Chapter Two Lorand reports on the reasons for getting old, the prevention and the treatment. Chapter Three gives advice on how to support the function of detoxifying organs. Chapter Four helps to support the skin and kidney functions. Chapter Five recommends natural remedies like light, air and physiological exercises. Chapter Six, the longest chapter with twenty pages, shows how to lengthen life with good nutrition. Chapter Seven reports on getting proper sleep. Chapter Eight deals with sex life. Chapter Nine addresses hygiene of the soul. Chapter Ten deals with special treatments for older people. Chapter Eleven discusses the positive effects of ultraviolet light. Chapter Twelve introduces the prevention and treatment of arteriosclerosis. Chapter Thirteen explains the meaning of sicknesses. Chapter Fourteen gives hygienic advice for brain work. Chapter Fifteen completes and sums up the book with the following "Twelve Commandments for Long Living":

1. Take care that you do enough exercise in fresh air, if possible in the sunshine. Try to walk a long distance every day.
2. Eat meat only in limited quantity and only once a day. The diet should consist mainly of raw milk coming from healthy cows or goats, eggs, cereals, green vegetables, butter, cheese and fruits. Every third month you



Digest

a journal of foodways & culture

should avoid eating meat and you should chew your food very well.

3. Bathe every day and if possible once a week go to a Turkish bath.

4. Pay attention to your everyday stool; if necessary take a natural laxative.

5. Wear comfortable clothing that breathes. Cotton is the best material for the summer. In winter you can wear woolen underwear. Your shirt collar should be wide enough for good breathing and in the summer time you should choose light colors while you should wear dark colors during the winter.

6. Go early to bed and get up early.

7. Sleep in a dark and quiet room with the window open. A man shouldn't sleep less than 6 ½ and not longer than 7 ½ hours; a woman not longer than 8 or 8 ½ hours.

8. Rest once a week for a whole day and try to spend Saturday until Monday outside in the countryside or in the mountains.

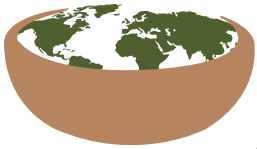
9. Avoid a negative frame of mind and excitement. Don't worry about something you cannot change or what will come in future and don't talk about negative things.

10. Temperate your sexual lust, but also don't repress your sexual instinct absolutely. Get married and if you are widowed, get married, again.

11. Avoid overheated pubs with steam heating or bad ventilation.

12. Don't consume too much alcohol, tobacco, coffee or tea.

The "Twelve Commandments for Long Living" demonstrate that the authors of these guides were recruited from the life reform movement since this advice can also be found in more general life reform literature. There are no differences between their rules for a natural lifestyle and these commandments. The authors of prescriptive literature on extending life generally tried to bring in scientific findings to support their nutritional theories. For example, Lorand mentioned Beaumont's experiments as a basis for his argument for a vegetarian diet and referred to many other contemporary international food scientists such as Scheunert, Urbeanu, Cooper, Weichardt, Stoklasa, Watson, Metschnikoff, Parr, and Karrell (Lorand 1932: 81-114).



Digest

a journal of foodways & culture

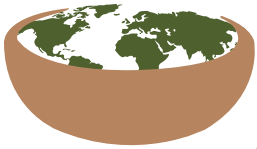
Lorand's Chapter Six on lengthening of the life-span by good nutrition begins with the sentence:

"Many of our foodstuff are more than a medium for our nutrition, they are high quality medicine...Many of our foodstuff contain very important nutrients...Even so a high quality medicine like iodine" ((Lorand 1932: np).

This introduction reveals that the author was influenced by the theory of "Uric Acid as a Factor in the Causation of Disease" by the English physician Alexander Haig (1853).

Haig's theory was the basis for the development of most diet systems proposed by life reformers. His theory on uric acid waste products in the blood and in the histological cells as the main reason for diseases built the foundation for his diet advice for older people.

It is very interesting to compare the early 1909 edition with the last edition of Lorand's book published in 1932. While in the first edition he uses Haig's theory as a foundation for his diet, in the later edition he also connects his diet ideas to recent scientific findings coming from modern vitamin research. A main point of his diet is that you can strengthen the heart muscle by glycogen, best eaten in form of honey. He believes that when people get older, they develop heart problems due to malnutrition caused by the consumption of too much meat and by excess weight. His argument for eating less meat is based on a book called *The Danger of a Potassium Poor Diet* from 1916 written by dietary scientist Urbeanu. Lorand adds to these scientific findings the advantages of a lacto vegetarian diet. In his guide he suggests eating green vegetables, whole wheat bread, and fresh fruits because the secretions, detoxification and digestive organs (liver, kidneys, intestines) don't work in the older human body as effectively as they do at young age. In the 1909 edition he talks about the importance of eating green vegetables and fresh fruits. In his later 1932 edition he backs up his theory by naming the vitamins which are in this food. Lorand advises consuming the water used to boil vegetables and claims that it is better to eat some vegetables raw because of their vital ingredients, later called vitamins. He also emphasizes the importance of milk products because their positive effects on digestion (lactose) and on the thyroid gland (iodine). In his guide on how to lengthen your life Lorand repeats the doctrines of the diet reformers of the modern life reform movement which were in fashion during his lifetime and underpins his theories with new scientific literature.



Conclusions

1.) In Germany we mainly find literature with health recommendations for increasing one's lifespan appearing at the end of the 19th and the beginning of the 20th century. At that time the first hygiene movement started to enlighten average people on how important it was to follow simple dietary rules to stay healthy.

2.) As mentioned in the foreword of some of the books, these monographs were written for a special age group of the German population, explicitly for people from 60 years onward.

3.) The health instructions were intended to lengthen the lifespan, to allow people to stay young and fit longer, to keep healthy, and to avoid sicknesses or to treat special sicknesses as a result of old age.

4.) There are many ideologies behind these kinds of guides. Hufeland, the German founder of the "Macrobiotic or the Art of How to Lengthen the Human Life," is often found in the books' forewords and he provides the foundation for all the recommendations on how to stay young longer or to how to lengthen one's lifetime. Another ideology is vegetarianism which emerges as the most important rule for how to get old while staying healthy and fit. The name of Sylvester Graham, a leader of the American vegetarianism movement and the inventor of the whole wheat bread, is mentioned as a positive example for eating a plant-based diet especially when you are old and your metabolism and your digestion has slowed down. Importantly, these special guides for older people were written by the same authors who wrote general health guides.

5.) We do not find statistical material in these guides for older people. Only simple examples taken from the authors' life experiences are described. There is one book with a nutrition table and one with studies about health and sickness, but they aren't included in the guides aimed at an older audience.

6.) The books on how to lengthen your lifetime or how to get as old as possible without any lamentation mainly suggest living in harmony with the nature by following the dietary rules put forward by the naturopathic doctors. Recurring recommendations are not to eat too much and be moderate, and to get enough physical exercise, sleep and rest in fresh air, and psychical training



Digest

a journal of foodways & culture

of the brain. Some medical doctors combine these naturopathic guidelines with emerging scientific findings in the fields of medicine and nutrition.

7.) These books first appeared at the end of the 19th century, at the same time when the first health and hygiene movement emerged and when a youthful body was embraced as the new ideal.

8.) In nearly every guide contemporary scientific findings are mentioned in order to put the advice on a firm medical foundation.

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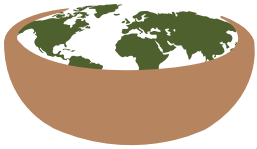
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Notes

i The original German reads: “Mein Thema ist verwandt, aber nicht gleichbedeutend mit der Lehre von der Verlängerung des Lebens. Unser grosser Lehrer Hufeland hat in seiner Makrobiotik so viel Gutes gesagt, dass eine Arbeit wie die Meinige unnötig erscheinen könnte; aber es dürfte doch die Hervorhebung einzelner Punkte aus einer langen Erfahrung nicht ganz unnütz sein” (Weber 1905:1).

ii The original German reads: “Bei mässiger Nahrungsaufnahme wird die



Digest

a journal of foodways & culture

Neigung zur Ablagerung in den feinen Blutgefäßen vermindert, und die körperliche Bewegung wirkt durch Erzeugung von vermehrtem Blutzufuß zu allen Organen und natürlich wird ihre Elasticität erhalten” (Weber 1905: 4).

iii “Brot muß immer von ungebeuteltem Mehle gebacken, das dazu verwendete Getreide vor dem Mahlen reißn gewaschen, das Brot mit reinstem Wasser angemacht und mit ganz reinen Händen geknetet und in wohlgereinigte Gefäße gelegt warden” (Nickolson 1869:62).

iv The original German reads: “Viele unserer Nahrungsmittel sind mehr als Mittel zu unserer Ernährung, sie sind hochwertige Arzneimittel... unserer Nahrungsmittel enthalten hochwertige Mineralstoffe, so Kalk, Schwefe...Phosphor, Eisen, Kupfer, Magenesium, Kalium usw.... Sogar so ein hochwertiges Arzneimittel wie das Jod” (Lorand 1932: page number???)