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AYURVEDA: THE SCIENCE OF LIFE

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ABSTRACT

Ayurveda is widely known as a system of traditional medicine native to India. It is less well known that as a preventive and holistic approach beyond medicine it provides guidelines for healthy nutrition, improving quality of life, releasing stress, and preventing other psychological hazards. Ayurveda also fits into the systematic approach of the Western world and the trend toward integrating theories and models that has resulted in biological, psychical, sociological, and economical approaches being transformed into a bio-psycho-socio-economical model of human life during the 20_{th} century. Clearly, any treatment has to be interdisciplinary and personalized. How does Ayurveda come into the picture? It has a fully personalized and systematic method to choosing the right diet, activity or medical treatment for the person, according to his or her physical, psychical and mental traits characterized by doshasand similarly focusing on the actual state of the person. Presently most of the ayurvedic products in the Hungarian market are imported food-supplements, immune-system strengthening or rejuvenating products, and cosmetics. However, there are invaluable possibilities in daily ayurvedic nutrition because it focuses on fresh food and ingredients. This translates to an increased emphasis on local shopping and thus invigorates local agriculture. Ayurvedic principles cannot be used on one single ingredient, because ayurvedic nutrition emphasizes allocation of a special combination of ingredients. To be truly ayurvedic, the ingredients have to be processed, which could benefit the processing industry. Finally, if someone is living and eating according to a system approach theory it is highly possible that he or she will be concerned about the environment and sustainability. Further research is needed to discover how Ayurveda fits into the alternative nutrition trends of Hungary, to find and examine the target group, prepare a complete marketing strategy and certainly to develop the exact ayurvedic products.
Keywords: Ayurveda, nutrition, health, sustainability

INTRODUCTION

Sustainability is a purpose everyone would be proud of achieving, but nobody really aims to act upon it. The question is extremely comprehensive because it covers all aspects of our life. The problem could only be solved if we take this complexity under consideration. It's not enough to walk every fortnight to the selective waste collector, but we need to change our way of thinking and habits completely as well as to get the whole society to do so. There are many ways of looking at this subject, and one of them is from the aspect of nutrition. We have found nutrition a suitable issue to start with, because it really affects everyone's life so it seems to be possible to accost people by this topic. However conscious and quality nutrition assumes consciousness about the source of food, preparation, combination and the fate of

household waste. Quality food is only available if the society is aware and respectful of the ecosystem can give. Among all possibilities we chose ayurvedic nutrition to explicate the potentialities in it because it has a fully chiseled ideology to help changing attitudes and not only rules to follow. Beside that more and more facts beyond the ideology have been proved by modern sciences in the latest years. Several eastern lifestyle trends have broken into the European market, but only few of them have characteristics that could be so integrally linked to western nutrition trends like Ayurveda.

DISCUSSION

What is Ayurveda?

Ayurveda is the ancient medicine of India, it's history goes back for 5000 years in the past. The ayurvedic knowledge is summarized in Atharaveda one of the four canonical collections (Samitha) of vedic knowledge. The word ayurveda means "science of life" or the complete knowledge of long life. As the name suggests it is a highly holistic approach containing all branches of medicine and far beyond that all human sciences including philosophy.

First of all we would like to provide an overview on the philosophical aspect of ayurveda to better understand the ayurvedic nutrition and its connections to economical sustainability in latter parts of the article. According to ayurveda the human body, mind and spirit build up an inseparable union and when this union is split illness will occur in the physical body. If a person accepts something to be true it becomes part of his or her reality and defines the persons later actions. So the human mind creates and recreates the reality form time to time and determines his or her fate by these accepted truths. There are three organizing principles (gunas) sattva rajas and tamas in the human mind manifesting the accepted truths.

Sattva (originally „being, existence, entity") has been translated to mean balance, order, or purity. Indologist Georg Feuerstein translates sattva as „lucidity".
Rajas (originally „atmosphere, air, firmament") is also translated to mean change, movement or dynamism.

Tamas (originally „darkness", „obscurity") has been translated to mean „too inactive" or „inertia", negative, lethargic, dull, or slow. Usually it is associated with darkness, delusion, or ignorance (*Daubner*, 2009).

Every newly accepted truth means a bondage to the person. If it is contrary to the previous knowledge it results negation and fear, strengthening tamas. The newly accepted truth also forces the person to move because every truth seeks fulfillment, strengthening rajas, and if the attraction and repulsion is compensated in a non polar way than sattva is emphatic. The three gunas manifestate five elements (pancha mahabhutas). These are akasha (ether), vayu (air), teja (fire), aap (water) and prithvi (earth). At all scales of life the universe is made up of these elements. The combinations of elements are coded into three powers, and these powers called doshas regulate all biological and psychological processes in the living organism. The interplay among them determines the qualities and conditions of the individual. A harmonious state of the three doshas creates balance and health. An

imbalance, which might be an excess (vriddhi) or deficiency (kshaya), manifests as a sign or symptom of disease (*Lad*, 1985).

Vata is composed of space and air, Pitta of fire, and kapha of water and earth. Vata dosha has the mobility and quickness of space and air; pitta dosha the metabolic qualities of fire; kapha dosha the stability and solidity of water and earth. *Table 1* summarizes the connections of doshas and physical appearance or phenotype and *Table 2* gives a more detailed description of other aspects of the above mentioned relations.

Table 1

Doshas and phenotype

	Vata	**Pitta**	**Kapha**
Hair	dry	fine, usually straight, maybe reddish, sandy, thinning or prematurelly greying	thick, oily, often dark and curly
Eyes	small, dark, often close set or wide set	bright, often grey or blue	large, wide, thick lashes and brows
Build	thin body frame, light muscles, long legs and arms	medium body frame, often muscular	solid, sturdy, large bones and muscles, maybe overweight
Skin	dry, rough, thing visible veins	warm, pale, ruddy, may have freckles	thick, oily, smooth, cool
Nails	brittle, may have ridges	medium in size, pinkish in color	large, smooth, white in color
Voice	low, weak, quick, talkative	high, sharp, clear, organized, argumentative	deep, slow, silent, good vocalists
Lips	thin, dry	medium in size, pinkish in color	full, moist
Walking pace	quick, uneven, hyper	moderate, goal oriented	slow, steady

Source: *www.spicejourney.ca/ayurveda/*

In recent years modern sciences seem to have found differences between the three most contrasting doshas in biochemical profiles and genome-wide expression. It is also proved that expression and genetic analysis of healthy individuals phenotyped using the principles of Ayurveda could uncover genetic variations that are associated with adaptation to external environment and susceptibility to diseases (*Aggrawal*, 2010). Taking into account the latest scientific advances the philosophy of Ayurveda is much more than a 5,000 year old fairytale. Examining an integrative perspective the ancient medicine of India with its holistic approach is highly relevant to contemporary needs.

Table 2

Effect of Constitution Type On Body

	Vata	Pitta	Kapha
Function of the Dosha (or controls)	Movement, Breathing, Natural ugres, Transformation of the tissues, Motor functiones, Sensory functiones, Ungroundedness, Secretions, Excretions, Fear, Emptiness, Anxiety, Thoughts, Life force, Nerve impulses	Body heat, Temperature, Digestion, Perception, Understanding, Hunger, Thirst, Intelligence, Anger, Hate, Jealousy	Stability, Energy, Lubrication, Forgiveness, Greed, Attachment, Accumulation, Holding, Possessiveness
Manifests in living things as	The movement of:: nerve impulses, air, blood, food, waste, thought	The quality of transformation. Pitta controls the enzymes that digest our food and the hormones that regulate our metabolism. Pitta transforms the chemical/electrical impulses in our mind to thoughts we can understand.	Cells which make up our organs and fluids which nourish and protect them.
Too much of the dosha force can result in	Nerve irritation High blood pressure Gas Confusion	Ulcers Hormonal imbalance Irritated skin (acne) Consuming emotions	Mucous build-up in the sinus and nasal passages, the lungs and colon. In the mind it creates rigidity, a fixation of thought, inflexibility.
Too little dosha force can result in	Nerve loss Congestion Constipation Thoughtlessness	Indigestion Inability to understand Sluggish metabolism	Experiences a dry respiratory tract Burning stomach (due to lack of mucous, which protects from excess stomach acids) Inability to concentrate.
Where found in a plant	Flowers and leaves (the parts which reach farthest into air and space)	Plant's essential oils, resins and sap	
Climatic influences	Dry climates or cold autumn winds increases Vata	Hot summers or hot climates will increase Pitta	Wet winters and damp climate add to Kapha.
Predominant during the life stage of	As we get older, we „shrink and dry out".	Teen and Adult. During this stage, our hormone changes transforms us into adults	Childhood years. During this period, we grow or increase in substance of the body.

Source: *www.holisticonline.com*

AYURVEDIC NUTRITION

The ayurvedic nutrition defines food according to five main aspects. These are taste, element, energy (hot or cold effect), post-digestion effect and special property. The Sanskrit word for taste rasa means delight or essence. Ayurveda says that a channel extends from the mouth into the brain and transports the taste to the brain where the taste or essence stimulates prana which in turn stimulates agni (digestive fire). If the taste of the food is not pleasing, the gastric fires may not digest the food and thus do not provide proper nutrition. If we think about it in anatomical terms we could say, that from the taste buds VII. XI. and X. cranial nerves conduct the impulse to the nucleus tractus solitarii after a synapsis to the thalamus and finally to the primary sensory cortex (Broadmann 43. area) where we recognise tastes, but the impulse also gets into the frontal lobe, hypothalamus and the amygdale which is part of the limbic system (*Sekuler and Blake*, 2000). The hypothalamus is responsible for the appetite (ventromedial and lateral nucleuses) and it is the central organ of the endocrine system as well (*Ormai*, 1993). The X. cranial nerve also innervates the stomach to conduce the secretion of hydrochloric acid, gastrin and pepsinogen, and it also regulates the peristalsis.

Ayurveda talks about six basic tastes: sweet, sour, salty, pungent, bitter and astringent. Every taste stem from two elements, transmitting their properties. Sweet originates from earth and water, sour from earth and fire, salty from water and fire, pungent from fire and air, bitter from ether and air and astringent from earth and air. The purpose is to have a reasonable amount of all the 6 tastes to harmonize doshas also considering the season and the actual state of the person. Every taste has a certain physical and mental effect. For example sweet builds and strengthens tissues, life sap, bones complexion at a physical stage, and causes contentment and pleasure at a mental stage. Again if we consider that carbohydrates are characterized with sweet taste and they are the main energy resources of living organisms and series of articles have been published recently on how eating chocolate triggers endorphin release from the hypophysis and they resemble the opiates in their abilities to produce analgesia and a feeling of well-being.

In ayurvedic system illnesses are described as excesses and deficiencies of the elements or doshas. From this point of view by understanding which tastes mitigate or aggravate which doshas, nutrition becomes an elemental and effective measure in maintaining the balance of health.

Energy (virja): Foods and herbs have a certain energy or effect, what is described by their heating and cooling capacity. The cooling capacity contains water element and heating capacity includes fire element. According to their energy tastes are divided to two groups. (*Daubner*, 2009) Pungent sour and salty are hot enhancing pitta, but sweet astringent and bitter are cold so lowering pitta. There have to be mentioned some other categories without further explication like wetting and drying or aggravating and pacifying properties for the dual subdivisions.

Vipaka (post-digestive effect): From this point of view the six basic tastes are reduced to three because sweet and salty becomes sweet, sour remains sour finally pungent, bitter and astringent becomes pungent. The first phase of nutrient digestion is processed in the mouth and stomach dominated by wetting, sweet taste

(digestion of carbohydrates) and kapha dosha. The second phase is related to the stomach and the small intestine characterised by heating, bitter taste (acid medium of the stomach) and pitta dosha, at the final stage of digestion in the colon drying is dominant (osmotic water reabsorbtion) with pungent taste and vata dosha. The long-term effect of foods and herbs is defined by the vipaka.

Prabhava (special effect): Beside others, herbs might have special, unique effects. For example, basil, although a heating herb, reduces fever. Herbs with similar energies will have different special properties. The herb's effects on mind and spirit are also called prabhavas.

The six basic tastes are also connected to certain emotions. Eating sweet might arise desire, sour envy, salted greed, pungent anger, bitter grief and astringent fear. In Hungarian sayings and expressions you can also find these connections, to be more exact we have already said that taste sensation is conducted to the amygdale, and it is proved that amygdale is responsible for emotions for example taste aversion also develops in this area (*Molnár*, 2007).

In *Table 3* we summarized the connections between tastes and the different factors of ayurveda to make the correlations more perspicuous. Closing the introduction of ayurvedic nutrition we would like to give a brief overview on the practical rules of building up an ayurvedic diet.

- As for preparation, warm food is better for the enzymes for an easier and quicker digestion.
- Avoid over or undercooked food and the usage of microwave.
- Cooking is best on wood fire but cooking on gas stove is better than cooking on electric stove.
- Fruits are best when fresh and uncooked.
- As for quality organic, fresh, home-grown, fresh picked, and raw dairy foods are advised.
- Foods that contain additives, preservatives, artificial colors or tastes should be left out of our diet so as canned artificial food and frozen food that contain steroids and chemicals.
- In Ayurveda it is essential to eat foods and herbs according to the season and geography.

Table 3

The correlation of tastes with ayurvedic categories

Taste	Element	Energy	Post-digestive e.	Emotions	Dosha
Sweet	Earth/water	Cold	Sweet	Desire	Kapha
Sour	Earth/fire	Hot	Sour	Envy	Pitta
Salty	Water/fire	Hot	Sweet	Greed	Kapha/pitta
Pungent	Fire/air	Hot	Pungent	Anger	Pitta
Bitter	Ether/air	Cold	Pungent	Grief	Vata
Astringent	Ether/earth	Constricting	Pungent	Fear	Vata

The proper quantity according to Ayurveda is to fill only one third of the stomach with meal, than one third with liquid and one third should remain free to help the digestion, but the quantity also depends on the main dosha. Combining different types of food is better for pitta dosha, for vatta the fewer combinations is the better and kapha is between vatta and pitta. As for spicing kapha does better with light, strongly spiced food, vatta needs rich and moderately strong spices and now pitta is in between. The mind should be calm and relaxed while eating to help easy assimilation of food (*Tirtha*, 2005).

AYURVEDA AND SUSTAINABILITY

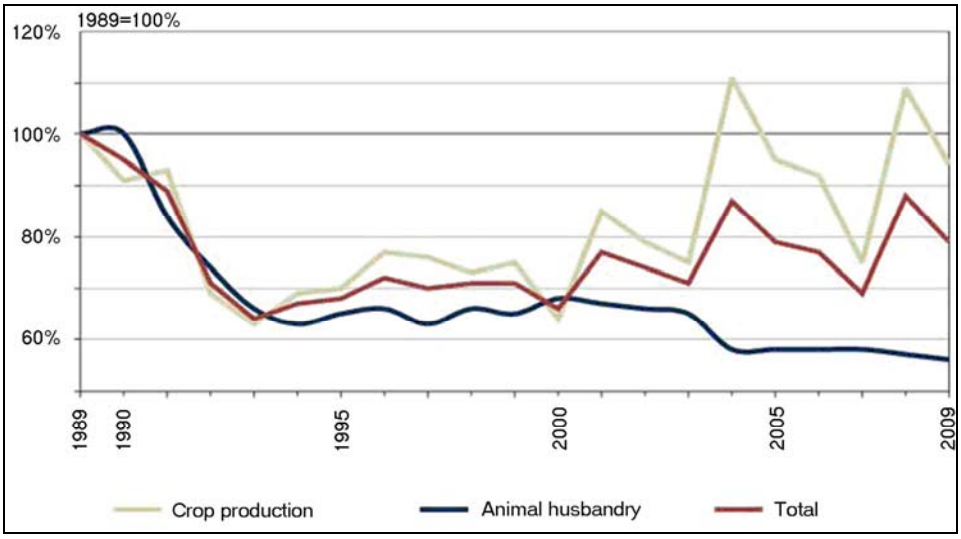
If we review the Hungarian agricultural production in the last 20 years we will understand the importance of finding and supporting nutrition trends based on fresh, natural ingredients like Ayurveda. The agricultural production has been going through a great recession in the latest decades. *Figure 1* demonstrates the change with the alteration of gross production of Hungarian agriculture. As for its contribution to the Gross Added Value in 1990 was 14,5% and until 2009 it decreased to 3%. After the regime change the balance of the animal husbandry (see *Supplement: 4*.) and crop production fell over due to lack of capital and limited sales opportunity so from 1990 to 2009 the livestock halved. The agricultural employment rate also lessened from 14,2% to 4,6% during this period similarly to the agricultural investment (from 9% to 5,6%). The crop production's moderate decrease is due to cereals, because they give a reasonable rate of crop production and actually they showed growth in this period (see *Supplement: 3*.) but the fruit cultivation and vegetable production dropped especially: onion, garlic, cabbage, red pepper, tomato (see *Supplement: 1*.) and grape, apple, peer, cherry, plum, raspberry (see *Supplement: 2*.).

After a detailed description of Ayurveda the task is to find a way to paste ayurvedic nutrition into a European especially Hungarian environment. The main feature that helps this process is that diet is advised to adapt to the geographical environment. That means spread of Ayurvedic nutrition is not equal to a radical increase of the import of Far-Eastern foods and ingredients but the demand for fresh inland farm produces is expectable to arise. Although it is beyond doubt that it is an important question and certainly there are outstanding quality products of Far-Eastern countries that can not be produced in Europe, but these premium products (food-supplements, immune-system strengthening, rejuvenating products and cosmetics) are suitable to serve the demands of a narrow segment of the society. The main segment spends a significant fraction of their income on food and cost of living (*Töröcsik*, 2007) and does not feel inclined to buy premium category import food or food supplements. The lowest quint of the consumers according to the monthly income, takes significantly more home-grown food than the highest quint of the consumers. Eating home-grown and fresh herbs is highly advised in Ayurveda, so the pyramid might turn upside down at this point, because the lower quint of the society is more able to gear their life-stiles to Ayurveda then the higher quint. Certainly in ayurvedic nutrition it is also possible to elaborate premium quality services, like ayurvedic restaurants that serve fully personalised dishes or high quality processed

food for those who can not or don't want to spend too much time in the kitchen because their lifestyle doesn't allow it, special combinations of spices for different ayurvedic types (doshas) or illnesses, organic food because according to Ayurveda artificial additives should be left out of our diet.

Figure 1

Gross production of Hungarian agriculture



Source: *Central Bureau of Statistics*, 2010

This suggests that it is possible to produce products according to the ayurvedic principles to a wide range of society so different manufacturers may be of interest. This process would help to create not only a more sustainable national agriculture and processing industry but also could lead to a healthier nutrition and lifestyle.

AYURVEDA, SUSTAINABILITY AND CONSUMER BEHAVIOUR

Health and sustainability represent hardly debatable values. There are many strong arguments to make it rationally acceptable and we can easily imagine highly emotive pictures about health damage, the environment of our children etc. and as a result we can see hardly any changes in the behavior of the majority. The attitude seems to be there, but the task is to find the way to convert the attitude to action. This question requires extensive empirical study, so the aim of this chapter is to raise some thought-provoking topics for further research.

We used the model of Mária Töröcsik on the consumer behavior as a guideline to organize the topics. This model distinguishes three main factors that effect consumer behaviour these are: environment, individual habits of consumer and conditions for particular purchase each contains different factors described in *Table: 4.*

Table 4

Model of the consumer behavior

I. Environment	II. Individual habits of consumer	III. Conditions for particular purchase
1. Trends	4. Shopping potential	8. Actual state of consumer
2. Marketing trends	5. Lifestyle	9. Nature of purchase
3. Social environment	6. Decision-making characteristics	10. Situational effects
	7. Person's attitude to shopping	

Source: *Töröcsik*, 2007

Amongst environmental stimuli we can discover contemporary trends that are consonant to Ayurveda and sustainability. For example you can find the trend of *health promotion* in Ayurveda as it has a totally preventive approach of illnesses. (In the past an ayurvedic doctor only got payment when the patient preserved health and was not paid when the patient fell ill.) As for sustainability a health conscious person would more likely to be conscious about the environment as well. Ayurvedic system approach could help to fulfill *Searching for balance* trend and a balance is also needed between development, economical interest and aspects of sustainability. *Naturalness* in Ayurveda appears in rejection of artificial additives and usage of fresh, local ingredients and naturalness is hard to implement without protecting environment. It is essential to emphasize that ayurvedic nutrition takes a very special place among the current consumer trends. The consumer trends have the feature of being present simultaneously with their anti-trend so as *cultural distance*: loving and rejecting exotics. The main advantage of ayurvedic nutrition in this respect it that drawing up a good marketing strategy ayurveda can meet the requirements of exotics lovers because it has an ancient Far-Eastern philosophical basis, but it can also satisfy people who are rejecting exotics, because it applies local commodities. The research task in this field is to find the perfect way to bring the theory into effect.

Highlighting some characteristics of the contemporary marketing trends we find a personalized appeal. At the same time ayurvedic nutrition is also suited to the dosha (trait) and actual state of the person considering numerous factors. The personalization and situations when we have to define or recognize ourselves on the other hand strengthen self-consciousness which emerges relevant and important attitudes (*Duval and Wicklund*, 1972). So if the product is designed to be personal the consumer will more likely feel that the purchase tells a lot about him/her and will evoke the main attitudes that are generally socially desirable like "I live a healthy life" or "I pay attention to the environment" etc. especially because social responsibility is also relevant to contemporary marketing so it is easy to find connections in the theme.

The consumer's *social environment* is a given factor. It is hard to have an effect on it, but it is more possible to build new relevant social group in the form of marketing

community. It would help to introduce new approaches like ayurvedic nutrition to the Hungarian consumers and strengthen the positive attitudes towards sustainable development In the present days information technology provides endless possibilities in the subject. It is much easier to give information on the topic, but we should consider providing bilateral argumentation, because the knowledge of cons will make the target group more resistible to other influences. It is highly advised to put a forum because personal activity increases the effect of persuasion (*Hovland et al.*, 1973). It also gives place to disputation on predefined subjects and disputation is much more effective way of conviction than reading a paper or listening a talk (*Lewin*, 1943). As soon as group activity is raised an additional factor will be given to the member's social environment. Membership will make the relevant attitudes more available and leads the persuasion towards action.

Amongst *individual habits of consumer* we will find *shopping potential.* We have actually mentioned in the previous chapter that lower income level people use more home-grown ingredients than people with high income level. We also established that fresh and home-grown products represent the highest value in Ayurveda. So thinking about setting ayurvedic nutrition in the society, source for ingredients should also be considered. As for sustainability of Hungarian agriculture it is a central issue to penetrate local products. Due to historical reasons cluster formation is quite difficult in Hungary, although serving the needs of multinational food chains would highly necessitate it.

A possible option to reduce costs and spare the merchant benefits is to reach directly the consumer on producers markets. The producer market in Káptalantóti should create a precedent. It was established four years ago by Ildikó Harmathy on her own field and by now it turned out to be a well-known and recognized place in the area, even (Hungarian Cuisine) Magyar Konyha (*Vinkó*, 2011) a national journal published an article on it. Some other townships like Köveskál are planning to go after, we sincerely hope the good example will spread. Internet also provides a surface for the producers to reach the consumers directly e.g. gazdapiac.com functions as a virtual national producers market. Certainly these markets still can not win the price competition with the hypermarkets, but considering III/9 the *nature of purchase* quality, home-grown and hand-made products could definitely not be found on the shelves of multinational food chains. No better *situational effects* are needed for selling producers products than a rural setting, with the producer behind the counter who can answer any questions about the product and could make the source of product more reliable with his/her authentic lifestyle and image.

Examining *lifestyle* will hopefully lead towards the definition of the target group for healthy, quality and specially combined – ayurvedic food. According to the TGI's survey (*Törőcsik*[3], 2007) in 2002 22% of Hungarian women and 21% of Hungarian men belong either to "consumer elite" or to "successful consumers" and both are quality oriented health-conscious and mindful of environment. They could form the primer target group, but the experience seeker and hedonist groups (both about 10% equally men and women) are opened novelties and tend to follow the contemporary trends. That suggests, their interest might be arisen as well, but in the marketing strategy special attention should be paid on maintaining their loyalty. The

global economic crisis and other factors might have changed these rates, so updating of the results is proposed.

As for the *attitudes* and the *actual state of the consumer* health and sustainability provide enough strong arguments to convince high rationally and emotionally involved consumers using systematic information processing (*Petty et al.*, 1981). Little atmosphere of fear is adequate about risks with proposals for solution to reduce distress in order to avoid inadequate cooping strategies. But if only superficial processing is left it is better to rely upon heuristics. If the attitudes are successfully strengthened the distortion of the perception will become consistent towards the subject, attitudes will be quickly available for superficial informational processing. According to the theory of reasoned action the aim of building consumer attitudes is also to arise intent toward the subject and if the intent is present, the distorted perception will search consonant information until the cognitive dissonance will have reached the level of directing the actions.

But one question still remained unanswered: When would the attitude lead to action? If the person makes conscious decision, so we need conscious consumer, if the attitude is used frequently, that means intense marketing and if the person's self-consciousness is affected for this subject so the personal responsibility for health and environment is emphasized, summarizing if the attitude is accessible. It is also essential to map the attitude-system of the target group to make the intended attitude compatible, because it will be used more likely in the future, if it makes the decisions easier. The feeling of personal control, letting to know what the person could actually do about the subject will also arise the possibility of the expected behavior (*Smith and Mackie*, 2004).

AN IDEALISTIC SOLUTION

Social marketing deserves special recognition amongst the new developmental trends of marketing strategies (*Szakály et al.*, 2010). The aim of social marketing is to replace the company's short term profit-oriented attitudes to long term planning with natural, social and cultural interest in view. That would contribute to sustainability and it would not be inconsistent with the market interest if the participants see it as a non-zero-sum game especially because the components of primary production, processing and trade are interdependent. If the processing industry is infirm the unprocessed goods could only be sold at a lower price, the workers will be underpaid or unemployed so the solvency will be low, and if the spending power is weak that will affect the demand so the primary producing as well etc. To keep every component sustainable and ensure the money circulation is common economical interest. The problem is similar to the prisoner's dilemma: if any operator fails to comply with the rules of loyalty the system will crash and the competition for short-term profit maximization will restart.

Nagy (2009) in his article on environmental marketing suggests that although there is little chance in the near future for a paradigm shift, the contemporary mainstream economics doesn't provide a soil ground for a sustainable future. But steps could be done to prepare the ground for the paradigm shift when the main

market players will recognize that ensuring sustainability is our common interest. It won't be an easy way, because competition is deeply based in our individualist culture, especially because it builds in at a very early age (*Sándor*, 2009).

One of the steps could be the spread of Ayurvedic thinking in the society. We find it a great achievement is the field that the First International Congress on Ayurveda organized in Milan in 2009 was dedicated to awareness, environment and health. Dr. Guido Sartori (Vice President, Italian Scientific Society for Ayurvedic Medicine, Italy) in his lecture "described the Ayurvedic view that plants are a source of nutrition and medicines. A complex and refined Ayurvedic pharmacology aims to make the inner properties of plants safely bioavailable. The peculiar characteristic of vegetal organisms is their vitality which is based on the same constitutive elements as human beings, validating the use of plants in Ayurveda. Plants live and grow in an environment that has to be suitable for them, free from contaminants and pollutants. The maintenance of the soil, water, and seeds requires the care and attention that only people who are aware and respectful of the ecosystem can give. Ayurveda gives criteria to make ecocompatible, diverse choices that are linked to cultivation for the benefit of the health of all living beings" (*Morandi et al.* 2010).

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http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/i_omn007a.html [28-05-2011]

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http://www.holisticonline.com/ayurveda/ayv-basis-tri-dosha.htm [30-04-2011]

http://www.spicejourney.ca/ayurveda/[26-04-2011]

Appendix

Supplement 1

Yearly average vegetable production of Hungary between 1990-2009 (tons)

Period	Onion	Garlic	Carrot	Parsnip	Cucum-ber	Pea	French bean	Cab-bage	Cour-gette	Green pepper	Red pepper	Tomato	Maize
1990-1994	146086	12304	80464	43159	83932	70490	24552	112370	11863	86820	53696	309762	87927
1995-1999	160484	16534	115851	51490	113231	68915	29834	161486	16102	105678	47189	268998	192692
2000-2004	125295	10398	96078	39495	94938	87623	25973	153505	12861	93263	49247	247375	449705
2005-2009	76955	6242	76548	37650	60102	97128	25080	83547	13180	150516	25577	203874	472205

Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/i_omn008a.html

Supplement 2

Yearly average fruit production of Hungary between 1990-2009 (tons)

Period	Grapes	Apple	Peer	Cherry	Sour cherry	Plum and greengage	Peach	Apricot	Red currant	Raspberry	Strawberry
1990-1994	700 738	789 365	61 049	25 690	70 078	134 863	61 158	36 174	0	22 470	0
1995-1999	604 699	466 263	38 773	20 529	54 378	108 756	61 495	28 617	9 666	19 627	10 602
2000-2004	673 328	606 957	21 645	12 170	53 773	68 570	51 505	21 987	11 001	12 137	7 364
2005-2009	531 865	472 510	23 732	7 427	59 548	47 754	52 978	29 578	8 353	7 208	5 685

Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/i_omn009b.html

Supplement 3

Yearly average cereal production of Hungary between 1990-2009 (thousand tonnes)

Period	Cereals
1990-1994	11 714
1995-1999	12 216
2000-2004	12 468
2005-2009	14 153

Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/i_omn007a.html

Supplement 4

Animal products of Hungary (yearly average) between 1990-2009

Period	Milk (million liters)	Hen egg (million piece)	Fat stock (thousand tonnes)	Fish (tonnes)	Meat production (thousand tonnes)
1990-1994	2 262	4 275	1 768	20 015	1 023
1995-1999	1 972	3 341	1 433	17 011	872
2000-2004	2 010	3 309	1 515	18 446	915
2005-2009	1 794	2 876	1 381	20 249	766

Source: http://portal.ksh.hu/pls/ksh/docs/hun/xstadat/xstadat_eves/i_oma002b.html