

## THE PHYSICIAN: ASPECTS THAT INFLUENCE A DOCTOR'S LANGUAGE AND HIS/HER COMMUNICATION SKILLS

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**Abstract:** *The present study has aimed to determine the factors that influence a doctor's language and communication. For a balanced perspective, we have compared linguists' judgements and observations on doctors' language and medical communication with those belonging to a highly appreciated medical doctor, a famous professor from the medical university in Cluj-Napoca. It is commonly observed that a large part of medical vocabulary has Latin and Greek roots, which makes it somehow universal, easily translated into many languages. Medical language covers different levels of complexity, being adapted by the doctor to his/her interlocutors. Both sides agree that communication with the patient is influenced not only by the stage of development of medical science at a certain moment, but also by the doctor's formation and by the social and cultural background. With the development of technology and scientific research, the medical act is seen as “dehumanized” because of the decrease of doctor–patient communication in favour of technology-based information. Linguists seem to agree with doctors and patients that the psychological and moral factors are the most important in the doctor–patient relation. Looking for the main reason of disappointment connected to the medical act experienced on both sides, we have found that the attitude towards death has a very important influence on both the doctor's and the patient's approach to the medical act itself and to its results. The main conclusion of our study is that a doctor's language is stratified on different levels of technical and scientific content, according to his/her interlocutors. It also depends on the doctor's scientific formation, his/her moral values and humanistic culture. Medical language can be used ostentatiously, looking for social recognition.*

**Keywords:** *medicine, language, physician, slang, patient*

### Introduction

In a tightly interconnected world marked by the high speed with which scientific discoveries advance, where everybody is individually hurrying towards a common future, in continuous reconfiguration, languages, too, are shaped in the image and after the likeness of the time.

Language always remains a few steps behind scientific discoveries which, in their turn, are forever far from humankind's thoughts and aspirations. Lured, enchanted by the ever-changing horizon of knowledge, human intuition always attains new heights of reality, unconceivable and unbelievable for former generations.

Somewhere, on the top of the common edifice of languages, medical language has a central place, due to the unique social statute earned by the medical doctors of former and

recent times in the embroidery of human society. Uniting so many spheres of human endeavour, the doctors being acquainted with all social strata, medical language can be regarded as a plastic expression of the doctor's relations with the rest of the world.

Beyond its technical side, medical language has its social, moral and psychological dimensions. It shows the vast medical and general culture, the lofty place of doctors in society, but one can also trace in it signs of their limited knowledge, understanding and powers, as well as the social and guild barriers that they seem to willingly maintain, at least according to some linguists who observe this social game (Baylon, Mignot 329). They discuss the status of doctors as masters and mediators between life and death. The doctor unveils reality hiding the truth. He/She tells and he/she doesn't tell, at the same time (Baylon, Mignot 333).

Argot or slang? Rigorous and almost eccentric, language may leave place to hidden ignorance, ambiguity, inexactness and also pride (Baylon, Mignot 329-333).

Language is the sediment of thought. Inherent capacity of every human being, it has the magnetism that can unite individual water drops into huge waves, stirring the masses. It can break hearts and bring a dying man back to life, illuminate a heart and unveil a mystery. Language captures the spirit of the age and it has the means to mirror an entire culture, from environment and food, to education and sciences, from beliefs and traditions, to social relationships and politics. It tells history and it is part of it.

Verbal language is used for coding such a vast range of information and knowledge! We continuously strive to word our perceptions and inner life. Language is used to express and convey feelings, to transmit man's learning, insights and wisdom.

The world's conscience is continuously expanding. We are tightly interconnected by means of communication and travelling, environmental concerns and world politics. We cannot afford to ignore or neglect the rest of the world, as everything affects everything. A disease can travel across the world in one day. Terrorism and war, be it by means of weapons, media, economy or harmful chemicals, are a constant menace. There is no safe escape addressing it together, with responsibility and justice.

Information is accessible and almost free. The view on every matter becomes more and more coherent with the whole. As the spirit of humans is illumined and quickened, he/she can put together the laws of physics with the reality of humanity, environment and industry, thought and behaviour. The individual and society interact and develop through endless exchanges.

In his book *Medicine between Miracle and Disappointment*, a great contemporary professor and doctor wrote that "Each society, each epoch, has the doctors that it deserves" (Dumitrașcu 22). This is enough proof that excellent education is a condition for raising excellent doctors. In a letter written on behalf of Shoghi Effendi we read:

We cannot segregate the human heart from the environment outside us and say that once one of these is reformed everything will be improved. Man is organic with the world. His inner life moulds the environment and is itself also deeply affected by it. The one acts upon the other and every abiding change in the life of man is the result of these mutual reactions.

(Bahá'í Reference Library Home Page)

Education and medicine are, according to many, the most important professions. Nothing equals education in an individual's life. But no matter how rich or how highly educated we are, many of us need excellent doctors to fight for our lives, sometimes reaching the limits of endurance and knowledge.

People don't live isolated and neither do sciences (Dumitrașcu 11). The interconnectedness of sciences is best revealed in the medical field. The long years of medical formation are necessary for an individual to explore, understand and use biochemistry, physics, anatomy, informatics, psychology and many other sciences. Medicine is the top profession that unites science with the most humanistic approach. A medical student or a young doctor needs a master, high capacity of acquiring and processing information and the will to undertake that strenuous work until attaining excellence. And then, to maintain it.

When the excellent scientist has insight, wisdom and love, his profession becomes art, transcending the limits of science and material existence. Medicine is a passionate, lifelong quest and effort, working together with the medical staff, the patient and his close ones to maintain health and preserve life. It requires so much kindness and devotion!

Who is the doctor? What is his/her role and place in society? How is he/she trained? What are the factors that influence his/her language? What are the characteristics of his/her language? By answering these questions we reach a deeper understanding of this highly esteemed character playing a crucial role in our lives. We also discover connections between different aspects of social, economic and inner life, and how all these factors leave traces on a professional's language.

### **Medical vocabulary. Characteristics and use**

We need to draw a distinction between medical vocabulary or terminology and “communication in medical context”, the second being a lot more complete and meaningful. It is the context that gives the right perspective.

Baylon and Mignot make the observation that a large part of medical vocabulary used in Europe and North America is of Latin and Greek origin, which makes it somehow “universal”, at least in the “western” countries. So, it is easier to translate it into another language. According to them, Latin is still used in Eastern Europe for therapeutic prescriptions, as well as in medical reports.

Since ancient times, successive generations of physicians have added new terms to the medical thesaurus inherited from their forerunners. This has caused many terms to lose their former meaning and to be used with new connotations or with a totally different sense. This phenomenon occurs also in the case of basic, general language, as well as in other specialised languages, but with a lower rate of change of meaning. (Baylon, Mignot 327)

If scientific language is supposed to have a precise, well defined meaning, the aforementioned linguists came to the conclusion that medical language is “peu scientifique” (a little scientific) (Baylon, Mignot 327), as there are instances where the correspondence was lost between the term and the concept it stands for. This should not come as a surprise. The fast progress of knowledge on the causes and the mechanisms of diseases and of other health conditions causes the gap, between the newly acquired knowledge and the medical terminology, to grow. Discoveries impose either the creation of neologisms, or deriving/changing the sense of certain words, or “the adoption of precise definitions thus breaking the diachronic chain of meaning” (Baylon, Mignot 327).

Another cause of the relative character of medical language is the use of eponyms: when diseases carry the name of the one who first described them (Flaișer 102). Baylon and Mignot remarked that there are cases when the same disease has different names in different countries or universities. For example, the condition known in Anglo-Saxon countries as “Grave's disease” (described in 1835 by Robert Graves) is known as “Basedow's disease” (described by Carl Adolph von Basedow in 1840) (Endocrine Web Home Page) in France and

other countries. It also appears as “the Graves-Basedow disease”. Even more: when the same person describes more diseases, it happens to use the same name for two totally different things: “Fanconi’s disease” stands for two different pathologic conditions. The same goes for “Recklinghausen’s disease”. These eponyms, frequent in surgery, differ not only from a country to another, but also from a faculty to another and, sometimes, from professor to professor. To support this claim, Baylon and Mignot give the example of “Delmas and Laux’s Ganglion”, known in other courses and other cities under a different name, emphasizing that in this science of sciences we can speak about an “insufficient standardisation”, leading to numerous inexactnesses unless we mind the context (Baylon, Mignot 328). Then, they invoke the terms “nephritis” and “nephropathy”, which, according to the situation, may or may not have the same meaning. The context is essential for a correct understanding. The meaning itself depends on it. Concerning the change of meaning according to different contexts, another good example is given by the same authors. They notice that many terms have significance or another according to the context or, rather according to the specialisation of the doctors who use them. The adjective “tubar” (French “tubaire”) may refer to the Eustachian tube, but also to the ovarian tube. We can also speak about bronchial tubes. Misunderstandings are avoided by systematic and precise reference.

The gap between words and ideas is expanding due to the advance of medical knowledge. It is not an easy task to simplify a vocabulary abundant in words that have been used for ideas and realities that were quite unknown and unclear. This gap caused a deviation of primary meanings and ambiguity. As medical studies become more and more rigorous, medical language can hardly keep up with them. Thus, communication is sometimes imprecise, information being transmitted improperly (Baylon, Mignot 331).

As long as this information is used by people who can avoid misunderstandings by taking into consideration the context in which these terms appear, there are no serious problems. However, when information is processed by a computer, which understands only the strictly defined terms, the situation becomes very serious. Researchers speak about the so-called “crisis of medical informatics” (Baylon, Mignot 328).

### **Medical Communication Skills and Habits**

Medical language transmits information about diseases, research results, therapeutic indications and explanations directed to the medical students, the hospital staff, the patient and the family. So, it has to be tuned according to the “audience”. Baylon and Mignot quote Atkinson and Heath (1981), when they write about a very complex and significant aspect of the communication that takes place around the doctor: the “lexical scale” that may be observed. It has natural, standard language at one end, and gradually grows into technical language, or medical slang (Baylon, Mignot 329). These researchers confirm the fact that we can speak about “qualitative differences” when we compare the nuances of language, verbal and non-verbal. We can visualise the scale as follows:

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Physician-superior	- highest concentration of slang
Physician-colleague	
Physician-“inferior” medical staff	
Physician-student,	
Physician-patient and his/her family	–natural language mixed with medical elements

Medical language is an instrument. It is used to state the exact condition that brought the patient in contact with the medical doctor. Then, it is used in communication between doctors and the medical staff that have to apply the treatment and let the doctor know about the patient's evolution. Medical language allows the flow of information between master and student. It is used in hospitals, universities, conferences and publications.

When assessing doctors' attitude in general, Baylon and Mignot come to an interesting observation. They write that the outsider, the "profane", perceives these gradations as a division of the world in doctors and the other people. They consider that inside the medical society a hierarchy may be observed, even watching from "outside". A social scale on which each may play the role of the superior or the inferior, according to interlocutor and situation. It is the physician locutor who defines the level of competence of the locutor/audience in order to find the common language level (Baylon, Mignot 329). We sense again irony and disagreement in these observations. This is where more questions arise. Are these linguists right and well founded? Then, irrespective of their righteousness, what are the elements that caused these migrations on the scale of human society? What are the requirements of communication in this profession?

Medical communication among doctors is not homogenous. The differences of information are so big that a message between specialists may pass over the understanding of a generalist (Mischler 97). Mischler's conclusion is that "there is no common technical language for the entire medical body, but different levels of technical language common only for sectors of the medical body" (Baylon, Mignot 330). Here, the writers reach a sarcastic tone mentioning medical doctors who do not recognise their ignorance "so that they would not be taken for donkeys" (Baylon, Mignot 330).

Is medical vocabulary slang or argot? Baylon and Mignot define argot, in our translation, as "lexic particular to a determined social group, relatively closed used for cryptic goals" (Baylon, Mignot 333). They consider that the medical argot is a "signum social", sometimes with a "discriminative function" but also used for cohesion. The sense of belonging to a guild can strengthen cohesion among the members of the group. More important seems to be the economic and the specialisation functions, allowing both an "optimisation and a better flow of information inside the group [...] and an aesthetic function, as in argot, lexical creation emphasizes a will to play with words sending them back to a universe loaded with expressive symbols" (Baylon, Mignot 333). Scientific slang also has the functions of communication, specialization, economy, discrimination and cohesion. When for the creation of new terms the Greek-Latin model is used, medical language maintains its universal character and also its aesthetic side (Baylon, Mignot). The cryptic intention remains the only difference between slang and argot. In a doctor's discourse, information is filtered, aiming to tell the truth without saying everything. Why does he/she have to act in this manner? He/She has to share (his/her insights, opinions, decisions, requests) with the patient and the caregivers keeping sincerity, but also avoiding to cause unnecessary concerns and fears on the side of the person who is sick.

The relation between doctor and patient is degraded when there is not enough communication. It takes time to really listen to a sick person. Doctors prescribe treatments and assume that the patients follow them, but many patients adapt or even ignore the prescription. Many buy and use medicines without even consulting a doctor. There are serious factors that lead to such situations. We live in a society characterised by lack of time and trust. On the contrary, when the doctor listens carefully, the patient will turn to him/her with hope, deep respect and trust. If the doctor is not very good, he/she will treat the disease or only the symptoms, not the patient.

As medicine becomes more “scientific”, what the patient feels becomes less important. The doctor is looking for what can be measured. Feelings cannot be quantified.

There is an ongoing discussion on telling the truth to the patient. Different studies show that some patients don't even want to know exactly how serious their condition is. The patient is aware that he/she has the right to get health care and he/she claims it. The patients and the paramedics can sense the intention on the doctors' side of keeping some barriers between themselves and the rest of the world. Doctors have their limited knowledge and understanding. It is hard and not always wise to say that you do not know what the problem is or what is to be done. This might be so also because the patient wants to believe that the doctor knows everything and he/she can do everything. And here we reach one very important point: the painful difference between what a doctor wants and what he/she can actually do for the patient. Baylon and Mignot suggest that 50% of the doctors believe that it is better to say only parts of the truth, or to say it so that it would not be understood. Sometimes the doctor uses a term that veils reality. Is “idiopathic” a term that hides ignorance (Baylon, Mignot 336) or is it just a shortcut used to save time? The use of the word “ignorance” has such bad connotations, that nobody wants to be labelled with it. But the reality is that none of us can ever know everything. An acceptable explanation is given by Baylon and Mignot saying that there is “a need to name everything, even the cognitive void” (Baylon, Mignot 336).

### **Past and present**

In ancient times the doctor was a healer, a wise man, a scribe. He/She was among the most educated. Medicine was recognised as the noblest among arts. Then, the difference between doctor and the rest of the world opened the space to see him/her as a god, almighty, glorious. With the passing of time, many sciences developed and the level of knowledge acquired by the masses has grown significantly, catching up some of the distance that used to exist between doctors and the rest. Nowadays less people believe in supernatural powers. People have learned to read and write... and to question everything. Money has become more important than life. Instead of earning money for a living, so many live for earning money. So, almost everything can be bought. This is how even the medical act became a service we pay for. If we pay, we get it. We pay more, we get more. Unfortunately, nowadays doctors are seen as simple medical service providers. We witness a clear degradation of this noble art and of its image, too. Is the doctor a mere worker paid to sign a sick leave certificate and the medical prescription? This degradation has undermined the former glory of medicine from outside, but also from inside its edifice.

It is the exceptional professor, the master, who keeps alive the spirit of this art and preserves its nobility. In the generous act of passing his/her knowledge and art to the coming generations of doctors, the Professor becomes again immortal. He/She makes the fame of the university, of his best students, of the city and more. Across countries and continents we hear about brilliant doctors. A real master will keep the same standard of conduct in front of another master and when facing a poor patient.

A great progress that medical science has made is in the field of education and prevention. The population is informed of how to preserve health and prevent injuries. Written and spoken media help very much, but it can also be harmful when it replaces a real consultation. 8-10 years of medical studies are hardly enough to keep up with the constant evolution of knowledge. Excess of information can become dangerous for the students and young doctors. “The doctor is not judged according to what he/she knows, but according to what he/she obtains through his/her science” (Dumitrașcu 24). People have developed an

image of the doctor that shows him/her prosperous, with a certain lifestyle. Today, doctors want to enjoy their lives. They do not want to be the heroes that used to forget themselves for the sake of others. The patients think that doctors' lives are to be envied. They are not aware of the ongoing specialization which is not only hospital work, but also endless courses, conferences and publications. However, when it comes to training, practice is the most intense battlefield where a person is built. "Clinical thinking is integrating a heterogenous ensemble of information and adopting the best strategy in diagnose and treatment" (Dumitrașcu 23). The student thinks together with his master. "One night-shift can do more than a month of study" (Dumitrașcu 26). Science and conscience are needed. Alone, neither would be enough to make a doctor. The Master's urge calls to sacrifice: "Strive day and night that thou mayest become highly qualified in this science" (Bahá'u'lláh 2009:5).

Fortunately, the process of social disintegration taking place in the world is doubled by a positive one, of unification. Many businessmen meet to find out how they can best profess respecting high ethics and how to attain the highest professional standards. They speak about ethical business. A "global learning community accompanies mindful individuals and groups through daily work and discourse to transform business and the economy thereby contributing to a prosperous, just and sustainable civilization" (ebbf Home Page).

With the passing of time, medical activity has been institutionalised, and so have been the language and relations. The image of doctors has gone through different stages, from godly to disastrous and back to a high and esteemed state and, now, again shivering under the pressure of a highly materialistic time.

We can speak about norms and limits not only on the side of the patient, but also on the side of the medical staff. Mutual respect and polite attitude dictate the words, mimics, gestures and tone. The doctor doesn't mend the patient. Rather he/she strives to heal and help him/her feel good. Understanding and a loving attitude are extremely necessary. By asking the right questions in the right way, and then by listening carefully not only to the answers he/she expects, but also to what the patient needs to share, a wise doctor will obtain the necessary information and data.

Time, pain, fear, insecurity, even shame heavily press from all the sides. This is why knowledge does not suffice. A "humanistic" approach of this work is needed from the first days as an undergraduate student, until the last patient the medical doctor will ever treat. So often it is the loving care and true listening that makes a difference in a patient's condition. It must be very hard to care and to still be detached, to take time and be efficient.

Kindness, devotion, and affection are needed. But what happens when the medical student and even the doctor cannot understand the patient's mimic, gestures or words? In a world where populations mix and diversify, we encounter quite often situations of misunderstandings caused by cross-cultural differences. Proper environment, too, highly contributes to a successful medical act. Knowledge and technology need the right atmosphere in order to reach their goal. The clinic climate is a basic condition for the educational work. The model of action is decisive. We are not surprised to discover that exactly the same factors contribute to the doctor's formation and to the healing process: family, school, and society.

A great professor, Dumitru Dumitrașcu, emphasizes a doctor's need to have a rich humanist culture. Medical work is uniquely intense and diverse. A young doctor can't possibly have enough life experience when he/she first steps in front of a patient. He/She needs to develop his/her sensitivity. He/She needs the power to understand so many human problems that he/she never experienced himself/herself. Culture will help him/her develop and master the art of communication and it will increase his/her creativity (Dumitrașcu 26). A master needs the force to persuade his students when he transmits them his values. They will

feel his heart's vibration and humanist creed. Then, kindness and devotion are "cultivated in parallel with the instruction itself" (Dumitrașcu 25).

The student will learn that there are no good and bad patients. There are no comfortable and uncomfortable sick people, but rather "distinct situations that claim matching strategies" (Dumitrașcu 25). Then why even the doctor feels disappointed? Why does the patient wish to put in his/her doctor's hands the whole responsibility, hoping that he/she can do the impossible? The patients' feelings connected to hospitals and doctors are hope and despair, trust and suspicion, fear and courage, shame and pride. What is in the eye of this hurricane? The silent word. All the negative thinking circles around the perception of death as a punishment, as a failure, as an end. In our advanced civilization there is an ancient fear of death. The unknown is dark. The one that passes beyond this barrier of the known world is considered lost. This is why people would do anything to avoid passing beyond. At least to delay that hour. And still they neglect their health so badly! Usually it is fear and pain that bring patients to a hospital, not conscience. They often go too late, and then they think it is enough to bet all their money on the doctor. He/She has to keep patients alive. If patients die, then the doctor failed. Why him/her and not the patients? And what if death is better than life in many situations? How much are we allowed to maintain life in spite of a body that is due to die? Medical technology should not play God. Neither should we. Not to speak about abortion and euthanasia.

Behind this denial of responsibility on the patients' side there is a deeper, or more complex problem. One aspect of it would be money, again. In our society teachers are responsible for our children's education because we pay for it. We pay and we get what we want. Then, it seems acceptable to pay a doctor and expect him/her to fix us, to make us healthy. It went so far, that some doctors would make us healthy only if we pay. Here, the circle closes with education, society and individuals. Coming to this point, we agree that our "twofold moral purpose" (The Universal House of Justice) should be to transform ourselves and our community.

## Conclusions

Diverse voices and perspectives form the polyphonic corpus of experience and knowledge that cast light upon the reality of this highly appreciated, main character acting in the play of life. The Physician is the king of scientists, striving to attain medical and moral excellence, invested with power and trust, ever interested in preserving life and being a balm for the soul of the sick. His/Her social mission is mighty and so is his rank. A doctor needs to study more than anybody else. He/She must be highly trained and prepared, working side by side with a master. Medicine is the queen of sciences, noble, artful and wise. The union between them is lifelong, deep and passionate. Medical language mirrors all the aspects and circumstances of the medical act, from knowledge to attitude, from creed to the deepest thoughts and assumed mission. A doctor must attain the level of excellence. The years and exigences of his formation exceed the preparation for any other profession. The responsibility is huge. Therefore, the physician, seen as a god in ancient times, is on the top of society.

Medicine is an art, a science, a craft. In our attempts to analyse and understand aspects of medical life we wonder very early about ourselves. How close can we really get to the object of our study? Do we really see inside this matter, or all we can do is to interpret and to pass through our own filters a reality which will remain stranger and unknown to us. No matter what the object of his/her research may be, no matter how good he/she is, a linguist will remain inside the borders of his/her own perceptions and capacities to analyse. His/Her

territory is vast. It goes from practical aspects of languages, to the most abstract and hidden ones. Somewhere it will get close to philosophy, as both language and philosophy are palpable forms of thought. Mirror of thought, language is endless. Then, endless is the possibility to misunderstand it.

In our days society is very stratified. The causes are manifold. In virtue of his/her exceptional position in this multidimensional structure, the Physician occupies one of the highest positions. Out of respect and wisdom, to ride safe on foreign lands, trying to be just and right, our guide on the heights of medical world had to be a doctor. Cluj-Napoca is a pole of medical life in Romania. We have considered appropriate to choose as lighthouse the huge personality of an exceptional doctor: professor emeritus Dumitru Dumitrașcu (Calomfirescu).

Unlike doctors, linguists can be wrong without very serious repercussions. Our mistakes are not usually life threatening. This is enough to impose more respect and caution when we write or speak about doctors. It is also true that a doctor's place in society is determined by his/her vast culture and his/her exceptional human quality. A doctor's language is moulded by his/her scientific, spiritual and cultural biography.

## WORKS CITED

- Bahá'u'lláh et al. *Health and Healing*, Compiled by the Research Department of the Universal House of Justice. Fifth Revised Edition. New Delhi: Baha'i Publishing Trust, 1998.
- Bahá'u'lláh. *Cuvinte tainice*. A treia ediție în limba română. București: Editura Bahai, 2009.
- Baylon, Christian, Xavier Mignot. *La Communication*. Paris: Éditions Nathan, 1994.
- Calomfirescu, Ștefania Kory. *Despre profesorul dr. docent Dumitru Dumitrașcu și evoluția școlii de gastroenterologie clujeană*. Editura Ecou Transilvan, 2014.
- Dumitrașcu, Dumitru. *Medicina între miracol și dezamăgire*. Cluj-Napoca: Editura Dacia, 1986.
- Esslemont, J. E. *Baha'u'llah și era nouă*. Ediția a treia. București: Editura Bahai, 2014.
- Flaișer, Maria. *Introducere în terminologia medicală românească*. Iași: Editura Alfa, 2011.  
<https://europeanbahai.wordpress.com/2007/10/11/international-bahai-medical-conference-for-physicians-and-health-canada/> (Last accessed: 12 September 2017)  
<http://ebbf.org/about/> (Last accessed: 12 September 2017)
- Mischler, Elliot George. *The Discourse of Medicine: Dialectics of Medical Interviews*. New Jersey: Ablex Publishing Corporation, 1984.
- Shoghi Effendi. *Compilation on Social and Economic Development*. 17 February 1933.  
<http://www.bahai.org/library/authoritative-texts/search#q=we%20cannot%20segregate>  
 (Last accessed: 7 September 2017).
- Toft, Daniel. Grave's Disease Overview, Endocrine Web  
<https://www.endocrineweb.com/conditions/graves-disease/graves-disease-overview>  
 (Last accessed 14 September 2017).
- Universal House of Justice. Message to the Bahá'ís of the World, Ridván 2010,  
[http://www.bahai.org/library/authoritative-texts/the-universal-house-of-justice/messages/#d=20100421\\_001&f=f1-24](http://www.bahai.org/library/authoritative-texts/the-universal-house-of-justice/messages/#d=20100421_001&f=f1-24) (Last accessed 14 September 2017).