



T.C.  
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SOSYAL BİLİMLER ENSTİTÜSÜ  
MÜTERCİM TERCÜMANLIK ANA BİLİM DALI  
ÇEVİRİ BİLİMİ BİLİM DALI

Strategies to Overcome Challenges in Technical Translation

M.A. THESIS

Hazırlayan

Ümit TEKİR

Tez Danışmanı

Prof. Dr. N. Berrin AKSOY

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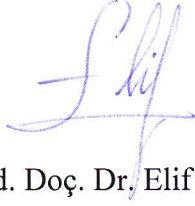
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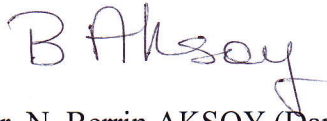
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## INTRODUCTION

In an age of globalization which brought about multilingualism, intercultural technical communication takes place in a world immersed in multiple influences. The necessity for the availability and distribution of information and culture, the urgency of continuous acquisition of new and more specific knowledge and technology at shorter and shorter periods of time have all contributed to reevaluate the weight of translation in the interaction of languages and cultures.

Nowadays, the scope of communication is expanding: more modes, forms, media and channels are available and are used for making meaning than ever before. Corresponding with the changes in the scope of communication, translation is rapidly expanding. In this expanding landscape, the amount of translation is increasing exponentially and the landscape is reshaped by the distribution of the translation industry- political, juridical, technological and commercial translations have become the mainstream.

Translation, within the above context, has become an issue of growing importance, particularly with regard to technical information. There is heightened awareness of cultural and linguistic exchange than there has ever been before. The increasing technological developments which facilitate the communication among the world community, have been providing the suitable atmosphere for borderless' communication. Hence, translation has been offering an opportunity for eliminating situations of inaccessibility of innovations and it assumes an inevitable role in international and intercultural communication, becoming, as Akşit Göktürk says, the "language of languages" (1994:15). Communication among the world community by means of media and other technological devices bring along the efforts to remove barriers of language. In the field of translation studies, the tendency for specialized branches is growing in parallel with the increasing demand of knowledge, information and innovation transfer. The development of specialized translation has been backed up by the academic and curricular activities in translation, where specialized translation courses have been drawn up at university level towards B.A or

M.A degrees. Within this context, technical translation becomes the appropriate activity for the transfer of information exchange, which now constitutes 70% of all translation activities in the world, so that knowledge and information can be passed around efficiently and be managed effectively.

The spread of communication networks at a worldwide level by means of translation is largely a corporate-led phenomenon which is business-driven in its essence, as a result of the effects of globalization. On the other hand, while translation has a major role in the dissemination of knowledge and information across borders, it also has another contrasting role in the localization of knowledge and information. Globalization within this context is intimately linked with localization as referred to in the definitions “globalization refers to a product that has been enabled at a technical level for localization” (Lisa, 2000), and “localization means a process to facilitate globalization by addressing linguistic and cultural barriers” (O’Hagan 2002: 66). Hence, it can be said that apart from constructing a global knowledge, translation also needs to produce domestic identities for local appeal and effect in the fields of knowledge and information, notwithstanding areas such as culture and economics.

Within a global and local context in the areas of knowledge and information transfer, and their dissemination in the 21st century, technical translation gains a superior status than ever before. It has become a basic requirement for improvement and development. Now, specialized translation which deals with informative texts involves the translation of pragmatic texts such as technical texts, texts on social sciences, economics, medicine, and the like, which carry information at their core. At the academic level, great importance has been given to the study and practice of specialized translation with an emphasis on its challenges, which is strongly encouraged by international and national organizations such as the EU Commission, the UN, ABGS in Turkey, by means of scholarships, Networks, training schemes and the like, in order to improve the quality of professional translation.

Due to their nature, technical texts are concerned with communicating specialized information in any field (particularly industry), read by technicians, technical managers, owner-operators of machines, and scientific researchers to perform a certain task (White 1996:4 in Bryne: 47). What makes texts technical is their specialized information focus above other elements, whereby concrete and actual information is embedded within the constitution of the text. People normally read technical documentation because they want to be able to do something else. As Dobrin puts forward, “ technical writing adapts technology to the user” (1983: 247 in Bryne: 49)

Another important characteristic of technical texts is the way it uses design and layout to facilitate the readability and comprehensibility of information content. By manipulating the design and layout of a text, it can be made easier for the reader to navigate through the text. As part of this process, technical texts will often contain a combination of text and graphics to make the text more stimulating and to communicate and emphasize the information content.

In relation with the qualities and characteristics of technical texts, technical translation needs to be, above all, communicative, reader-oriented and service-rendering as a product and these qualities enable translation scholars to assess technical translation and its challenges within the frame of functionalist approaches and the Skopos theory which are going to be dealt with in Chapter III in this study. Hence, in trying to situate technical translation within a particular theoretical framework, its target- orientedness will imply a connection with Toury’s definition of the roles of translation (1995: 56-7). According to Gideon Toury, translation is essentially affected by two major roles such as, having the position of a text produced by a target language and in a target culture and as constituting a representation in one language of another text existing in another language and culture. Therefore, since the aim of technical translation is to achieve subscription to norms originating in the target culture especially in the case of instructional texts which are intended to function a a target language text, overcoming challenges due to

its nature and achieving acceptability become the ultimate goals of the translation process.

Within this background, the starting point of this thesis is the assumption that the translation of technical texts is governed by the notion of achieving acceptability due to their informative nature which is the ultimate core to be transferred to a target culture/reader within globalization and localization interactivity and their requirements. Hence, in this study, the significance of technical translation in terms of language, terminology and text type qualities will be emphasized to reflect the special nature of the process and the product of technical translation while discussing translation challenges and strategies. Consequently, one of the objectives of this study is to ascertain the challenges of technical translation within the perspective of target-orientedness and function-orientedness and secondly to place technical translation in the overall picture of Skopos theory due to its target-oriented and functionalist characteristics. This study, as its third objective will attempt to assess and evaluate the translation strategies to overcome the translation challenges, within the framework of a Skopos oriented approach in order to underline the importance of the skopos of the translational act and its function in the target language and culture.

The answer to the following questions will be sought for in this study on the strategies to overcome the challenges of technical translation.

- 1) What are the qualities of a technical text as a linguistic entity in the overall picture of knowledge and information transfer in a globalized world?
- 2) How do these qualities determine the skopos of technical texts within the source and target societies?
- 3) Is it possible to define the evolution of technical translation in a background of theoretical approach as such?

4) How can the challenges of technical translation be described strictly as a target-oriented activity?

5) Within the scope of theoretical background, how can the strategies to overcome the challenges of technical translation be identified with a functionalist approach on a comparative analysis basis?

This thesis is organized in the following manner. In order to move within the boundaries of the above questions, while providing answers to each of them,

Chapter I attempts to display the evolution and development of technical translation in the world and in Turkey in order to place technical translation in a historical perspective which is a prerequisite in dealing with specialized branches within a general translation theory;

Chapter II attempts to provide a linguistic assessment of technical text in terms of text type, language and terminology within a theoretical framework, as well as to try to form a basis for developing the argument of challenges in technical translation;

Chapter III attempts to devote itself to situating technical translation in a theoretical frame against the background of Chapters I and II and deals with the challenges in technical translation due to its text type nature and functionalist and target orientedness;

Chapter IV will attempt to identify strategies to overcome the challenges of technical translation as described in Chapter III, while attempting to describe the quality, nature and linguistic characteristics of technical texts in the overall picture of a globalized world against a theoretical background, by means of studying the translation methods employed in three sample texts.

Conclusion will consist of an overall evaluation of the findings of this study in relation with the questions asked in the Introduction and the initial assumption will be compared with the final findings of the study. Consequently, the strategies employed in the sample texts to overcome the identified challenges of technical translation will be discussed in relation to their functional characteristics within a skopos-related theoretical approach to arrive at a comprehensive conclusion. The strategies employed in the sample translations to overcome the identified challenges of technical translation will be used to arrive at a comprehensive approach within the boundaries of this thesis. Eventually, it is hoped that the evaluations will pave the way to arrive at a more general conclusion by the future researchers.

## CHAPTER 1 DEVELOPMENT OF TECHNICAL TRANSLATION

### 1.1. A GENERAL HISTORY OF TECHNICAL TRANSLATION

Since the creation of humanbeings, communication has always been a method used to establish contacts. Then we can say that the act of translation started together with the communication. Since communication is a must in social life, the need for sign systems and translation is unavoidable. Communication can be both within the limits of a society and between different societies who use different sign systems. Therefore the relationship between different societies has always been possible with the act of translation. When the civilizations are examined throughout the history, it is seen that the dissemination of knowledge among different societies has been achieved by translation. These societies has often become aware of the advancements in technology and science by means of translation. Therefore; translation becomes very significant in technical contacts between societies and humans. Since the translation of technical texts is the preliminary scope of this thesis, it will be beneficial to have a brief look at the history of technical translation in the world. Therefore, this Chapter will devote itself specifically to present an overview of technical translation beginning from the Middle Ages until today.

Middle ages comprise the period between fifth and fifteenth centuries. Twelfth century is the period when translation activities reached to a peak. Lots of scientific works of eastern civilizations were introduced to the West by means of translations. On the other hand scientific books of Greek writers were translated into Latin which was considered to be the Lingua Franca of the time. James of Venice was the first translator in that period who translated from Greek to Latin. In 1182, he translated Aristotle's *Organon* which was called then as *New Logic*. Another book which was translated from Greek to Latin in that period was Ptolemaeus' *Almagest*. Ptolemaeus was an astromer, a mathematician and a geographer and he dealt with the complex movements of the stars and planetary paths in his book *Almagest* which was translated by Eugene from Sicily. *Meno* and *Phaedo* of Plato were also translated in this period by Aristiphus from Greek into Latin. When Constantinopole was invaded

by Latins in 1204, lots of Greek books were carried to Europe and this increased the number of translations in the thirteenth century. Aristotles books *Rhetoric*, *Poetics* and *Metaphysics* were translated into Latin (Kelly, 2009: 481).

Twelfth century is known as the period in which the eastern and western worlds met through translation. Adelard an English philosopher and mathmetician collected lots of works of art belonging to eastern scholars and translated these works from Arabic into Latin. Furthermore, *İhsa'ül Ulum* of Farabi, a Turkish scholar and *Makasid'ül Felasifi* of Gazali and some works related to astronomy and philosophy were translated into Latin between 1135 and 1153. What is worth mentioning in terms of technical translation especially in the twelfth century is the translation school of Toledo established in Spain. Arabic, Jewish and Christian cultures were brought together in this school and lots of technical texts were translated. The aim of the scholars in Toledo school was to transfer the cultural and scientific heritage of Arabian and Greek civilizations to the Central West. According to Mine Yazıcı Toledo school had a great impact on the dissemination of scientific and philosophical knowledge to Europe (2004: 61). Works of İbn'i Sina were also translated into Latin in this school. Gerard, a translator of Italian origin, is considered to be one of the hardest working translators in Toledo school. He translated 83 scientific books into Latin. Books of İbn'i Sina, Farabi and İbn'i Heysem were translated by him. Moreover an Italian scholar Plato translated Batlamyos' *Quadripartitum* and lots of other works about geometry into Latin and a Spanish doctor Marc translated the *Holy Quran* and works of Hipocrates and Calinos into Latin (Kelly, 2009: 481).

In the thirteenth century, translations from Arabic into Latin continued. Alfred a British philosopher translated İbn-i Sina's *Şifa*. Arabic interpretations of Aristo's works were translated by a Spanish translator Peter Gallego. Stephen from Zaragoza translated İbnül-Cezzar's work *Edviye* in 1233 and an Italian translator John translated İbn-i Sina's *Elercüzetu Fittib*. Moreover Faraj, a Jewish translator from Sicily translated Razi's *Elhavi* in 1279 and İbn-i Cazla's *Takvi-Mülebdan* in 1280. Other translations of Muslim scholars made together with these translations in that period provided the scholars in Europe to have new insights about science.

Scientists throughout Europe studied these translations in the newly established universities (Faruqi, 2006: 391-399).

Renaissance is the period in which the works belonging to ancient times were revived. The role of translation in this process of revival is very strong. This movement started in Italy and spread to Europe. Due to the invention of printing press and the emergence of national languages, translational activities gained a new momentum. Scholars from the eastern world were now more popular in the west and this popularity was gained by translation. Some of these Muslim scholars were Farabi, İbni Heysem, Biruni, İbnu-Rrüsd and İbnü-Haldun. Their works had already been translated in the medieval period but because of the advances in technology like printing press, these works had to be retranslated. As it is mentioned above the works of eastern scholars were translated from Arabic into Latin. Nationalism was a movement that started in this period due to geographic, technological and scientific innovations. The emergence of national languages was a natural outcome of this movement. Therefore these works were in this period translated into various European languages like French, German, Italian, Spanish and English (Faruqi, 2006: 391-399).

The cultural and scientific heritage of the ancient times were first borrowed by Eastern civilizations in the beginning of the medieval ages through translations from Latin into Arabic. Eastern scholars worked on and got inspired by these works and produced original works in maths and science. In the Renaissance which was the age of rebirth, the situation was reversed and Western scholars started to benefit from the works that belonged to eastern scholars. These works were mainly about astronomy, mathematics, geography, art and medicine. As for example the studies of İbni Heysem and Al-Harizm who developed physics, algebra and geometry were translated into all European languages. In addition İbni Heysem's book *El Menazır* in which he mentioned his theories about atom, molecules and optics was translated into European languages. Biruni's book about trigonometry and astronomy, İbn-i Sina's *Kanu-un Fit-tip* were translated and used nearly in all European Universities for ages. Nearly all of the books of Farabi were translated and finally Ebu Musa

Cabir bin Hayyan's works about chemistry were also among the books translated in this period (Faruqi, 2006: 391-399).

When the people's thirst of knowledge and education were mingled with the invention of printing press and the wide usage of papers, a variety started to be observed in the direction of translations. Nationalism gained importance and each country in the west started to set up its own cultural and scientific roots. Hence, rather than translating from Arabic and Greek into Latin, the already translated texts and books about science were this time translated into national languages.

## 1.2.HISTORY OF TECHNICAL TRANSLATION IN TURKEY

### 1.2.1 HISTORICAL OVERVIEW OF TECHNICAL TRANSLATION IN THE OTTOMANS

Ottomans gave importance to scientific and technological activities since the Empire was founded. The establishments of Medresas on the Ottoman territory stands as a clear manifestation of this fact. First Medresas were established in İznik, Bursa and in Edirne. The language of education in these Medresas were Arabic. On the other hand Turkish was the official language of the Empire. Both secular and religious education were given in these schools (Kahya, 2003: 11).

Although the language used in education was Arabic and the official language of the Empire was Turkish, the first translation between these two languages was by Hekim Bereket who translated an Arabic book about medicine into Turkish. The name of this book was *Lübabu'n-Nuhab* and it was translated in the period between 1312 and 1319. This translation was done for Aydınoğlu Mehmet Bey and is considered to be the first translation from Arabic language into Turkish (Kahya, 2003: 12).

There were two translations in the fifteenth century. Ptolemaios *Geography* was translated into Arabic by a man of science Giorgius Amerikus. The reason for using the target language as Arabic is that in this era the language of science was Arabic in the Ottomans. Plutarch's *Paralel Lives* was also translated into Arabic (Yazıcı, 2004: 81-82).

On the other hand translations from eastern cultures were also made. For example two of the articles of Ali Kuşçu, a well-known man of science dealing with astronomy and mathematics, were translated from Persian into Arabic.

Up to the 17th century, translations from different cultures were made thanks to Mehmet the Conquerer's own personal efforts. The borders of the Empire were enlarged in this period and the Empire became a world power. Mehmet the Conquerer was a man of science and he gave importance to translation activities. Thus these developments paved the way for more organized studies in the period of Katip Chelebi. Katip Chelebi was a statesman who devoted himself to science. He lived in the 17th century and wrote lots of scientific books. *Fezleke* written by him was not a translation but it is worth mentioning because both linguistically and scientifically it shows the developments of the period. Works used in composing this book were cited by him. That is to say he was the first man of science to use References section in his book. Furthermore, the book was written in a descriptive method and Chelebi mentioned his own ideas while writing this book (Yazıcı, 2004: 83). The problem with Arabic and Persian languages were their being elaborated in style. Hence using these languages in science which requires precision and clarity, was not appropriate. It can be said that as a result of the efforts to use a more precise and fluent language in the field of science, Ottoman language started to emerge and to be used more commonly especially in science.

Perhaps one of the most important translations in 17th century was the translation of Noel Duret's *Ephemeeridess Motuum Celestium Richeliause ex Lannnbergi Tabulis*. This book was first translated into Arabic and then into Turkish

by Köse İbrahim Efendi. The name Copernicus and his scientific studies were introduced to Ottoman culture with this book (Yazıcı, 2004: 84).

Tulip era is the period between 1718 and 1730. In this period Ahmet III was reigning the empire and the Grand Vizier was Nevşehirli Damat İbrahim Paşa. Military, economic and political relations with the Western world intensified. The terms Modernisation or Westernisation started in this period. As put forward above, the language of science was generally Arabic in the fourteenth and fifteenth centuries. First Turkish books were about medicine and these books were generally derived from former popular Arabic texts. *Müfredat-i İbn Baytar*, *Havas-ul-edviye*, *Kamil-üs Sinaa* can be listed among these books. Celaleddin Hızır, one of the most important man of science of the age, was writing in Arabic but also translating his books into Turkish to enable them to be fully understood by the society (Paker, 2009: 554). *Muntehab-us Şifa and Teshil-us şifa* were among these Works. *Zahire-i Muradiye* written by Mukbil-zade Mumin consisted of translations compiled from Arabic and Persian sources. The aim in translating a book like that was to form Turkish medical terminology. During the reign of Mehmet I, books about wonders of the world took much attention and in this direction Zekeriya el-Kazuni's *Acaib-ül Mahlukat*, giving information about plants and animals was translated.

In 1717, a translation committee was established under the chairperson of the poet Nedim. The aim was to translate both from eastern and western languages. Translations from western sources were done because it was aimed to be aware of the advances in science and technology. Technical and medical works were rendered to Arabic which was the language of science in those years. There were 25 people in this committee. *İkd-ül Cüman fi Tarih-i Ehl iz Zaman* of Bedruddin Mahmut Ayni about the history of İslam and Habib-üs Siyer of *Hüvendmar* were among the books translated from Arabic into Ottoman. On the other hand, Aristotle's *Physics* was translated from Greek into Arabic and translations of İbni Sina's *Şifa* and Suhreverdi's *Hikmet-ül İşrak* was done by Esad Efendi in this period.

School of Military Engineering and the Military Medical School were established in this era for the sake of modernization (Paker, 2009: 555). Technical documents were translated in these schools like *Memorie della guerra* by Count Raimondo Montecucculi, *Geographia Generalis* by Bernhardus. Varenius, *Aphorismi* by Herman Boerhaave about anatomy and two other scientific Works in Latin about Galileo's and Descartes' ideas, magnetism and the compass were translated by İbrahim Müteferrika (Paker, 2009: 555).

Printing press which was established in 1727 by İbrahim Müteferrika played an important role on the number of translations. In 1729 the *Vankulu Lugati*, which was translated from Arabic in the sixteenth century, was published. On the other hand, a Turkish grammar book in French *Grammar Turque* and the expanded version of *Cihannüma* were published by Muteferrika. Generally, most of the translations of this period were similar to the ones done in the previous period. They were mainly about political geography and military among which we can see Wilhelm & John Blaeau's *Atlas Major* (Yazıcı, 2004: 91).

During the reign of Selim III the printing press was designed again and new translations were published. In this period the innovations of the eastern world were followed and more importance was given to the dissemination of knowledge. Asım Efendi translated Necdüddin Firuz Abadi's *Kamus* and tried to find correspondences to nearly sixty thousands words within the language used by the public. Translations in this period were generally from the eastern sources. In terms of science and technology especially about military technology, some translations from the west were made. Konstantin İpsilanti translated *Fenni Harp*, *Fenni Lağım* and *Fenni Muhasara* and these translations can said to be the first scientific translations in its real sense. General inclination in this period was the transfer of knowledge and great care was shown to prevent any cultural transfers. Translations from French and other western languages were mainly about military, science, medicine and natural sciences (Yazıcı, 2004: 92). At this point, it is worth mentioning the translation agencies in the Ottoman Empire:

### Encümen-i Daniş

Encümen-i Daniş was established in 1851 with having the primary aim to prepare course materials for Darülfünun (an institution for higher education) which was to be established at a later period. Ahmet Cevdet Pasha was the founder of the institution and there were 33 members. Ahmet Vefik Pasha, Hayrullah Efendi, Hoca İshak Efendi, JV Hammer, Redhouse and Bianchi were among the members. Ahmet Cevdet Pasha prepared some dictionaries which had the aim to refine the language from Arabic and Persian words and to form a new language of science which could be understood by the public. The aim to prepare books for Darülfünun was not fully obtained because only 21 books 15 of which were translations published. Clearly the number of translations were not enough for Darülfünun. On the other hand, the works about language paved the way for Turkish to be the language of science (Yazıcı, 2005: 53).

### Cemiyet-i İlmiye-i Osmaniye

This institution was established to cover the deficiency of Encümen-i Daniş about translations on scientific material. Munif Efendi was the head of this institution and it had the aim to publish translations almost in every fields except religion and politics. A scientific magazine *Mecmua-i Fünun* had been published between 1862 and 1867. The aim of this magazine was to inform the public about the scientific advances in the west. The scope of this magazine was very wide containing nearly all branches of science like economy, philosophy, geography and science. Besides translations on science, Munif Pasha was interested with philosophy and he compiled a book named as *Muhaverat-ı Hikemiye*. This book was an anthology in which translations from Voltaire, Fenelon and Fontonelle took place (Yazıcı, 2005: 54-55).

### 1.2.2. HISTORICAL OVERVIEW OF TECHNICAL TRANSLATION IN THE TURKISH REPUBLIC

Translation activities in Turkey developed consistently following the Reformation Period (Tanzimat) of the Ottoman Empire (Aksoy: 2001). In the newly founded Republic, in order to catch up with the advancements in science, technology and arts in the West, translation activities gained momentum and became a state-led event especially between the years 1940-60. Naturally this institutional framework was the outcome of the efforts that started earlier in Tanzimat with the establishment of Encümen-i Daniş. Rather than the empirical works of ancient Greek and Roman, the literature of the west was heavily translated in this period. One of the prominent names of the period was Minister of National Education, Hasan Ali Yücel who initiated a translation movement during that time. There were mainly two reasons for this movement. First, translating ancient Greek and Roman works were expected to contribute to be a part of the universal culture and by encouraging the transition from oral to written culture, to establish a national language which will be widely used and understood by the public was the other aim of the Republic within the frame of modernization (Yazıcı, 2005: 59).

Translational activity of the period is worth being analysed in two categories. First one is the establishment of a Translation Bureau which was under the control of Ministry of National Education and the journal called *Tercüme Dergisi* that was published by this bureau. The second one was the translational activities in the universities of the period. Mainly the cultural gap with the western countries were tried to be covered by means of a large scale translation activity which were evaluated and recorded in the Translation journal: *Tercüme Dergisi*. In accordance with this idea first the literary works in Latin and Greek were translated. This was followed by the literary works of French and English. It is clearly seen that rather than concentrating merely on the literary works of east, the literature of the west was given more importance (Yazıcı, 2005: 61).

On the other hand, translations carried out in the universities were focusing on the scientific works. Translation was regarded as an important tool in quest of modernization by the founders of the Republic. Scholars which escaped from the Nazi Germany after the world wars and settled in Turkey, contributed to translation activities in Turkey mainly in the fields of social sciences. The aim of these translations was to contribute to the dissemination of knowledge to public. The translations from Latin, Greek, French and German sources were replaced by the English sources. With the establishment of new universities, the demand for knowledge increased. As a result of this, rather than the Professional men of science, translations were started to be organized and commissioned by publishing companies. This increased the diversity of translations. As stated by Yazıcı, published translations in the realm of science between 1928 and 1981 were as follows in accordance with the Bibliography of Turkish Scientific History (2004: 190).

Field	Books	Magazines
Medicine	3	52
Veterinary	1	9
Chemistry	1	3
Pharmaceutics		1
Dentistry	1	3
Geography		3
Forestry	2	4
Mathematics		1
Cartography		1
Biography		10
Lexicology	12	

Consequently, the increase in private publishing houses, developments in cultural, social and economic life of Turkey contributed to the flourishing of translation activities in almost all fields. The establishment of Translation/Interpreting B.A programs in the Universities is another factor that provided the market with better equipped translators who could carry out translation activities in a more systematic and orderly manner. Although the increase in the number of translators and translations in a market economy brought about academic and practical concerns, nevertheless, it created a fruitful atmosphere for translation activities in Turkey.

## CHAPTER 2 THE CHARACTERISTICS OF TECHNICAL TEXTS AND TECHNICAL LANGUAGE

This chapter will aim at describing text types and their importance in functionalist approaches followed by description of technical translation in general, in order to present a coherent view of the characteristics of technical texts and technical language.

### 2.1. TEXT TYPES

Before mentioning the text types, it would be useful to decide what we mean with the term technical translation. In a broader sense, technical translation is the act of translating texts which do not fall into the categories of literature. A basic division can be made between literary texts and technical texts. Medicine, engineering, law, social sciences, IT and all the sub-branches of these disciplines have a technical jargon. On the other hand, a further division can be made between scientific and technical translation. At this point dictionary definitions of science and technology will help us to set out our way. According to *Cambridge Advance Learner's Dictionary* the definition of science is as “the systematic study of the structure and behaviour of the physical world, especially by watching, measuring and doing experiments, and the development of theories to describe the results of these activities” and the definition of technology is as “the study and knowledge of the practical, especially industrial, use of scientific discoveries”. Furthermore the dictionary definition of technical is also important to clarify our direction in this study. According to *Cambridge Advance Learner's Dictionary*, the meaning of the term technical is “relating to the knowledge, machines or methods used in science and industry”. In these definitions we see that technology is mainly based on industrial uses of scientific innovations. Hence the term technical will specifically in this study stand for the texts such as manuals, user guides, user installation guides and various means of written communication in a company developed by the output of scientific innovations. These forms of written communication can be reports,

proposals, instructions and software documentation. On the other hand scientific translation is translating texts in the realm of science. Scientific texts can be articles, abstracts, books and thesis.

### 2.1.1. SCIENTIFIC TEXTS

As Reeves mentions science is not a solitary activity. Scientist to be more productive and efficient have to collaborate. Thus they have to use the oral and written language (Reeves, 2005: 1). The type of language that the scientists use to communicate with other scientists is quite different from the type which they use to communicate with the lay people. But above all, scientists primarily communicate or use the language through the scientific literature. There are mainly four different types of scientific literature or modes of communication in the realm of science. These are primary, secondary, tertiary and grey literature. The types of scientific literature will be summarised by referring to Patrick J. Schembri's article "The Different Types of Scientific Literature" taken from <http://www.scribd.com>.

#### Primary Literature:

Primary literature is about the writings of the researches done by either individual scientists or by a group of scientists. These accounts or texts are published in a peer-reviewed scientific journal. Generally the board of journals decide on a particular format and papers of scientists have to comply with this format. In normal conditions a paper should consist of a title, abstract, keywords, introduction, material and methods, results, discussion, acknowledgements and references. Editor of the journal sends the papers to referees who are experts on the subject matter. They evaluate the paper whether it contains new information or not. When this peer reviewing is done, the editor may demand from the scientists to change their papers or he may accept it as it was first submitted. Both the language and the format of

these papers should be appropriate in accordance with some scientific criteria to be published.

#### Secondary Literature:

Publications in this category rely on primary sources for information. Authors do not have to do the works themselves, they just summarize or synthesize the works of scientists in a specific area for some other scientists who are familiar with the topic. As Schembri mentions “the secondary literature includes review journals, monographic books and textbooks, handbooks and manuals” (Schembri, 2007: 1). Secondary publications have also a scientific style however the organization of these texts are not similar to the primary publications. Giving references to the primary sources used in these papers is essential. Secondary literature is used by scientists to get an overview of research areas both in their fields and relevant fields or to get an understanding about the newly emerging topics.

#### Tertiary Literature:

Tertiary literature comprises published works which are based on primary and secondary sources. These works are generally written for the scientists who are specialized in different areas and for the lay people. Rather than being scientific, the language in these publications is popular. Science magazines, newsletters, science articles in newspapers, introductory textbooks and encyclopaedias can be listed under tertiary literature.

#### Grey Literature:

Grey literature comprises the sources which contain scientific information but which are not published and distributed. Thesis, dissertations and technical reports which have a limited distribution can be listed under this category. As publication and distribution of these sources is not carried out in a usual manner, it is difficult to obtain these sources (Schembri, 2007: 1-2).

The distribution of scientific knowledge was carried out by means of books up until the 17th century, but this type of display changed when the first scientific journals appeared in 1665 (Rijke, n.d. 3). Most of the scientific journals had some rules which the writers must obey. Generally the articles written by the scientists follow the IMRAD structure. First an abstract summarizes the reports of the main findings then in the Introduction section a general background knowledge is presented. As it is stated by Eric H. Glendinning this section also reminds the reader what is already known about the subject with giving information about the previous studies and also mentioning what has never been studied or researched on the same subject. Moreover at the final part of this section objective of the study is always mentioned (Glendinning, 2007: 122).

The method section clarifies how the research was carried out. For example as it is mentioned by Eric H. Glendinning:

In the case of clinical research, the Methods section gives details of the people who were studied- the participants in the research. The method section also contains information about any intervention carried out, for example medication, advice, operations. It gives details of the steps taken in the study, how the participants were chosen, and includes the main things measured, such as blood levels. Finally there is information about statistical analysis (2007: 122).

The outline of the method section was exemplified by Glendinning with using a medical atmosphere based on clinical research. However a good example was given to the reader to understand the details of the method section. In the Results section main findings of the study was presented and in the Discussion section, the gathered data was interpreted and arguments were provided to support that interpretation. The importance of the study is emphasized with giving references to the possible future researches. In the light of these descriptions of scientific texts, technical texts may be identified as such:

### 2.1.2. TECHNICAL TEXTS

Both inventions and innovations are carried into practise by the professionals to facilitate the life of the human being living in the world. A company with a team of experts designs a product and the usability degree of this product determines how much it will be sold. Both in the production phase and after this phase when the product meets with the customers there are a range of documents used. These documents are called as technical texts. In the following section of this chapter, some of these documents will be introduced in order to clarify their qualifications and the ways in which they differ from scientific texts or other text types as mentioned by Katherina Reiss. Before presenting Reiss' text-type categorisation, it may be worthwhile to list type of technical texts according to John L. Hoh, Jr's classification which may be less academic but more practical and market oriented:

1. Addendum: a brief document that contains information that was omitted from a user or reference manual, or information that clarifies information in such manuals.
2. Application Notes/Briefs: Information that relates to direct use of a product in a system environment/customer application.
3. Architectural Overviews/specs: architectural information describing the conceptual and functional aspects of a component, including block diagrams, data flows, processing algorithms, etc.
4. Benchmark documents: information that demonstrates how processors/platforms perform against certain benchmarks
5. Datasheets: a product-specific document that contains the essential information about a component product, particularly the characterization information such as electrical specifications, thermal properties, mechanical specs, etc.

6. Data book: a collection of data sheets for a particular product family.
7. Design Guide: a document with information on a reference design, enabling customers to design their products around the reference product (used in microprocessor industry).
8. Design Spec: a document that details the design of a particular product.
9. Electronic Design Kit: a collection of information and tools to be used by customers that enable them to complete their designs more efficiently and effectively.
10. Engineering Bulletin: a short (4 to 10 pages) document that deals with a specific functional component of a device.
11. Errata: a document reporting on design defects or errors.
12. Functional spec: a document that details how a particular product will function (based on a requirements spec).
13. Installation Guide: the necessary information for installation of a particular product (including Quick Start Guides) for hardware or software.
14. Hardware Manual: functional descriptions of a component. Descriptions of the various logical or physical components of a product and explains their workings in detail. May contain some developer/programming information, but are usually devoid of any "user" information (procedural, task-oriented).
15. Packaging Guide (microprocessors): the component packaging options independent of specific component products.

16. Product Brief: a short (2 to 4 pages) document that highlights the functional and application properties of a device. Usually includes a block diagram and sometimes a proposed pin diagram. Often written with a marketing slant and distributed before the product is available.

17. Product specifications: a product-specific document that contains the essential information about a product, particularly the characterization information such as electrical specs, thermal specs, and mechanical specs.

18. Programmers Reference Manual: a document that contains information on programming registers and other components for a device.

19. Requirements spec: a document that outlines a customer's requirements for a product to be developed. Often drives the development of the functional spec and design spec.

20. Software Manual: information about how to install, use, or program a particular component or design a particular piece of software.

21. Specification Updates: contains spec changes, errata, spec clarification and documentation changes. (Hoh, Jr 2001: 1-2)

It should be noted that all of these technical document types are used both within the companies in transferring information among the staff and outside the companies when the products meet with the customers, that is to say with the lay people. What is common for these documents is the fact that they all convey information and have a goal regardless of the audiences.

### 2.1.3. REISS' TEXT TYPES

Katherina Reiss' text typology is an important step which shifts the direction of the translation studies. Contrastive linguistics was comparing lexical and syntactic units of languages but Reiss' contrastive approach was based on text and preserving the function of the source text became important for her.

Text type restricted theories are more commonly dealing with specific discourse types and genres. As for Katharina Reiss, text is considered to be the level of communication in which equivalence should be looked for. Rather than words and sentences, the text as a whole is assessed. As stated by Munday "Her functional approach aims initially at systematizing the assessment of translations" (2001: 73). In accordance with Reiss, the type of the source text is determinant in deciding the target text and the classification of the texts are as follows:

- 1 'Plain communication of facts': information, knowledge, opinions, etc. The language dimension used to transmit the information is logical or referential, the content or 'topic' is the main focus of the communication, and the text type is informative.
- 2 'Creative composition': the author uses the aesthetic dimension of language. The author or sender is foregrounded, as well as the form of the message, and the text type is expressive.
- 3 'Inducing behavioural responses': the aim of the appellative function is to appeal to or persuade the reader or 'receiver' of the text to act in a certain way. The form of language is dialogic, the focus is appellative and Reiss calls this text type operative.
- 4 Audiomedial texts, such as films and visual and spoken advertisements which supplement the other three functions with visual images, music, etc. This is Reiss's fourth type (2000: 171-172).

Due to their characteristics, texts about science and technology can be listed under informative text types. The language of these texts are assumed to be universal, void of culture and no artistic ornamentations are made in the language.

By looking at the text types above, it can be said that technical translations should also be informative and in plain prose. The problem here is the possible hybridity of the texts. For instance, a technical text can also be expressive and operative. The inventor who is overwhelmed about the invention can benefit from the figures of speech to show his enthusiasm. Furthermore there may also be some encouraging scientific texts for trainers. In some texts where space is also important like user's manuals, a more functional language with a special syntax can be used. The solution offered by Reiss is to focus on the predominant function.

## 2.2 TECHNICAL LANGUAGE AND TERMINOLOGY

A technical text is not similar to literary texts which are ornamented with figures of speech and in which words stand for something else rather than their dictionary definitions. Texts both in the realm of science and technology have a specific and clear purpose and these texts are not read by their audiences for fun or for pleasure. In general this specific purpose is to convey information and provide someone to be able to do the intended behavior or perform his work. Gould's description about the role of a technical writer will help to understand what technical writing is and what kind of specialities it has.

Technical writers must remain objective and factual about the subject matter they are dealing with. Their sole function is to write dispassionately about facts and objects and to relate useful, relevant, reliable information that readers can understand. The language they use must be simple and direct and contain a minimum of nonfunctional descriptive adjectives. Their verbs must be in the active rather than the passive voice to eliminate any doubt about what the writing means or implies. Any writing that requires familiarity with (or willingness to learn about) a technical field would be considered technical writing. Writing about museum conservation is technical writing as much as writing user manuals for a software product or a troubleshooting guide for a broken tractor. Technical writing is a useful communication tool whenever information of a technical nature must be transmitted (2008: 2).

Technical language can not be confined within the boundaries of one specific language. That is to say the language in technical texts is universal and the writers of these texts must be objective. As described in the scientific writing booklet by Tischler (n.d.)

Rules for scientific writing are identified as the following:

Interest, inform and persuade the reader

Write for your reader and write clearly

Eliminate unnecessary redundancy

Avoid digressions

Don't over explain and avoid overstatement

Avoid unnecessary qualifiers

Use consistent tenses

Use the precise word

Simpler words are preferred over complex words and use concrete words and examples

Simpler sentences are preferred over more complicated sentences

Use the active voice (except generally in methods)

Make sure the subject and verb agree

Use affirmative rather than negative constructions

Avoid use of the indefinite "this"

Use transitions

Cite sources as well as findings

Proofread your paper carefully; spell check does not catch everything; "there" is spelled correctly but not if you meant "their" (Tischler, n.d. 2).

## **CHAPTER 3 A THEORETICAL BACKGROUND FOR TECHNICAL TRANSLATION**

### **3.1. RECENT DEVELOPMENTS IN TRANSLATION STUDIES**

In this chapter a framework for translation studies as an independent field will be drawn. It is assumed that being aware of all the theoretical developments in translation studies is necessary in order to understand what this newly emerging discipline has gone through. Furthermore, as new theories are mainly built on the already existing ones, it will be beneficial for the translators of technical texts to grasp the differences among them.

It would be very natural to state that the act of translation started together with the invention of languages. Translators both in ancient times and in modern times work or act as a mediator to fill the gap of comprehension between different code units. Lots of theories have been developed about translation studies and nearly all of them, till functionalist approaches emerged, concentrated on the problem of equivalence. We can roughly divide the period of translation into some categories before it was established as an independent field of research with multidisciplinary connections by James S. Holmes in the second half of the twentieth century.

The first period where translation was discussed as an emerging importance was the period, highlighted by the ideas of Cicero and Saint Jerome. In this Roman period, translations were made from Greek to Roman language. Translation was discussed within the wider concept of a poet's duty by Cicero and Horace. These duties of the poet and therefore the translator were: "the universal human duty of acquiring and disseminating wisdom and the special art of making and shaping a poem" (Bassnet, 2002: 48). The main issue was whether to translate word-for-word or sense-for-sense. Word-for-word translating was known as replacing every individual word in the ST with their equivalents in TL. On the other hand sense-for-sense translation concentrated on conveying the sense without paying attention to the

equivalences of every individual word. As it is clearly seen the inclination was towards rendering the meaning except where the TL and SL were read side by side by the Romans. Word for word or sense for sense had formed the basis of translation studies in many centuries.

The discussions about translation continued mainly in connection with the Bible translation in the 9th, 10th and 11th centuries and onwards. The quest for creating the same effect was under question because this time SL was a divine language as for St. Jerome where even the syntax contained mystery (Munday, 2001: 20). As stated by Munday, the translation of Bible provoked the emergence of some conflicting ideas about the method of translation. The conflicting ideas were mainly about how to handle the divine utterance in translations and as regards to equivalence, creating the same effect in the target reader, who on earth would be competent enough to undertake such a duty without causing some misunderstandings? The risk of heresy was to be taken in Bible translations. The attempts to translate Bible contributed a lot to translation studies.

With the invention of the printing press in the fifteenth century, the spread of knowledge became easier and more books were written and disseminated. This also paved the way for systematic translation studies. Etienne Dolet is one of the first writers who came up with a translation theory. In *How to Translate Well from One Language into Another*, Etienne Dolet established five principles for the translators:

1. The translator must fully understand the sense and meaning of the original author, although he is at liberty to clarify obscurities
2. The translator should have a perfect knowledge of both SL and TL
3. The translator should avoid word for word renderings.
4. The translator should use forms of speech in common use.
5. The translator should choose and order words appropriately to produce the correct tone (Bassnet, 2002: 59).

When we come to the 20th century, we see that there were more systematic studies about translation. When the science of linguistics was at its height, some

scholars drew on it to put forward more systematic translation theories. Our first scope will be on the linguistics based translation theories. Linguistic theories of translation deal mainly with the concepts of meaning equivalence and shifts. When the studies in the realm of linguistics were on the agenda around 50 years ago, naturally some scholars benefited from these theories and united them with the studies in translation. In order to translate a text, the translator should have a high level of proficiency in languages. He must be able to comprehend the source text in detail and convey the message with using the structures of the target language. Therefore, most of the theories of translation related with linguistics are about the structures of languages that will, with an appropriate usage, provide the translator to achieve equivalence in meaning. Although these theories marked the beginning of a scientific study which was deemed necessary in translation studies, they fell short since the languages were not mainly about structure. In this study, due to their influence on the linguistics based translation theories, the works of Roman Jakobson, Eugene Nida, Peter Newmark, Werner Koller, on equivalences and of Catford on shifts will be taken into consideration.

Russian formalist Roman Jakobson studied mainly linguistic meaning and equivalence. In defining a linguistic sign, Jakobson adopts the relation which was previously mentioned by Saussure. The signifier the spoken or written signal and the concept signified are mentioned again by Roman Jakobson in a linguistic point of view. By giving the examples of nectar and ambroisa, words mainly seen in Greek mythology, he stresses that acquaintance is not necessary to grasp the concept that is signified. Transferring the concept that appears in the minds of the reader is the reason why Jakobson concentrated on the relation between signifier and the signified. As for Jakobson “there is ordinarily no full equivalence between the code-units”(Jakobson, 2000: 139). Because what a word signifies in a language may not be the same with that is signified in another language. For example the english word cheese may refer to a completely different thing in Russian. But by rewording or making some additions the equivalence can be achieved. Roman Jakobson in his work *On Linguistic Aspects of Translation* states that there are three types of translation:

1. Intralingual translation or rewording is an interpretation of verbal signs by means of other signs of the same language.
2. Interlingual translation or translation proper is an interpretation of verbal signs by means of some other language.
3. Intersemiotic translation or transmutation is an interpretation of verbal signs by means of signs of nonverbal sign systems (2000: 139).

For Jakobson meaning and equivalence are linked with the interlingual translation, that is translating between two different languages. He also states that one thing said in a language can be transferrable to any other languages. Code-units of languages may not sometimes correspond with each other because they belong to different sign systems. But this does not come to mean that one of the languages falls short. Jakobson states this as follows: “All cognitive experience and its classification is conveyable in any existing language. Whenever there is deficiency, terminology may be qualified and amplified by loan-words or loan-translations, neologisms or semantic shifts and by finally circumlocations”(2000: 140). He also justifies this statement by giving examples between English and Northeast Siberian Chukchees, a new born literary language. For example the word “screw” is rendered literally as “rotating nail” and the word “steel” as “hard iron”. As a conclusion, we see that the theory of Jakobson is related with grammatical and lexical differences between languages.

Another important scholar who paved the way for a comprehensive translation theory was Eugene Nida, a well-known American Bible Translator. He introduced two new types of equivalences to translation theory while he was trying to make the Bible understandable by the ordinary readers. These are formal and dynamic equivalences. It is assumed that a sentence written in a language can definitely be said in an other language, but on the other hand because of the discrepancies between languages and cultures, a full translation is not due to take place. Nida’s studies on equivalences aim to establish a way between these poles which follows a direction from formal to dynamic. With setting forth the principles in correspondence, Nida showed that translation is an art which requires skills in determining a way out among the complexities with regard to evaluating every

possible means to gather the same effect in TT. In this respect, every detail is taken into consideration by Nida in his article *Principles of Correspondence*. To achieve an equivalent translation, there are some principles which should be taken into consideration.

First category of these principles are different types of translations. According to Herbert the principles of correspondence is a subject which should be dealt together with different types of translations.(Nida, 2000: 153) Traditional classification is between free or paraphrastic translation and close or literal translation. In free translation conveying the sense or the content unchanged is primary. Whereas literal translation is a kind of translation which proposes to change every word with their equivalences in the receptor language. In this kind of translation the unit of translation is the word.

For Nida, “Differences in translation can generally be accounted for by three basic factors in translating: (1) the nature of the message, (2) the purpose or purposes of the author and, by proxy, of the translator and (3) the type of audience” (2000: 154). In a written document the nature of the message can sometimes be achieved by the dominance of the form and sometimes by the dominance of the content. In some cases both the form and the message can have equal importance. In poetry for example, form is the dominant factor and content is kept inferior. As it is stated by Nida it is almost impossible to reproduce form and content in a translation and a general habit is to sacrifice form in order not to lessen the impact of the content.

The purpose of the author and, by proxy, the purpose of the translator is another basic factor that causes difference in translation. Considering the purpose of the author and translator in deciding the type of the translation is a very functional approach but according to Nida although there are exceptions, it is assumed that the purpose of the translator should be similar to the purpose of the author. The purpose of the translator effects the translation. In some cases it can be to inform the reader and in other cases it can be to amuse the reader and under these objectives the way to render the message is determined. Sometimes the purpose of the translator can be

more than informing. He may wish to establish a certain behaviour. Thus, his translation should be meaningful, that is the readers will have the same logical conclusions in their minds when they are reading the translation. This is mainly achieved by the translator with finding relevant correspondences to the concepts of the source text. For example the phrase “white as snow” may not fully imply the same in a receptor society which is not acquainted with snow. Therefore the translator, for the sake of being meaningful rather than intelligible, may wish to translate it as “white as egret feathers” (2000: 155). Finally a translation can also have an imperative purpose which is considered as the greater degree of adaptation by Nida. In this kind of translation the translator must be as clear as he can in order to be sure that no one in the receptor society can misunderstand him.

Another principle which clarifies the type of the translation is the type of audience for whom the translation is intended to. It should be nonsense to expect that every individual has the same mental capacity within a society. Moreover, the translator may wish his work to be read by certain type of readers. We can say that the group that will read the translation plays an influential role in determining the type of translation. Nida puts forth that the prospective readers differ in decoding ability and in potential interest. As for their decoding ability prospective readers are divided at least into three categories by Nida:

1. The capacity of children whose vocabulary and cultural experience are limited.
2. The double-standart capacity of new literates, who can decode oral messages with facility but whose ability to decode written messages is limited.
3. The capacity of the average literate adult, who can handle both oral and written messages with relative ease
4. The unusually high capacity of specialists (Nida, 2000: 155)

Considering these different intellectual capacities, it can be inferred that a translation for children may not be similar to the translation for specialists. And as for the potential interest, we can say that a translation which aims to please the reader

is (or should be ) quite different from the one which aims to instruct about how to assemble a complicated machine.

After stating different types of translations and the factors that determines which type to choose, Nida clarifies formal and dynamic equivalances in his essay. In formal equivalence the attention is on the message itself in both form and content. Message in the receptor language should be in conformity with the message in the source language. This structural similarity between the languages can be achieved by gloss translation. Nida points out that the production of such a word for word translation will probably necessitate the inclusion of numerous footnotes in order to make the text more comprehensible to the target language reader. A gloss translation might be a use of study aid, and has the advantage of giving the target language reader a deeper insight into elements of source language and culture.

Whereas formal equivalence translations are used as an aid to understand the modes of behavior in a particular society, that is the source-text society, in a dynamic equivalence, the aim of a translator should be to make the message natural. In a way, the task of the translator should be to make the message sound original. Thus, the message should be presented with using the modes of behavior in the receptors society. Rather than matching the receptor language message with the source language message, obtaining a similarity between the relation of a reader and the message is essential. We mean both the original text and the translated version of it should bring the same ideas in the minds of the readers. Nida describes this relationship as:

In such a translation one is not so concerned with matching the receptor-language message with source-language message but with dynamic relationship, that the relationship between receptor and message should be substantially the same as that which existed between the original receptors and the message.(Nida, 2000: 156)

The gap between the languages and cultures of societies should also be taken into consideration in the journey of finding an equivalent. Nida put forward three different types of relations between the languages and cultures of societies. Some languages and cultures can be closely related with each other, some languages may not be related but cultures can be closely parallel and in some situations both languages and cultures can be completely diverse (2000: 157). In accordance with these classification, some conclusions are made. If linguistic and cultural differences are minimum, then the translator will encounter minor problems. When the languages are similar but the cultures different than during the translation process false friends are due to happen. When cultures are similar but languages quite different, the translator is called to make some formal shifts for adaptation. Differences between cultures cause more problems than the differences between in language structures.

Peter Newmark worked on linguistic theories about meaning and the application of these theories to translation studies. He introduced two new concepts as semantic and communicative translation. These two types of translation resemble Nida's formal and dynamic equivalences. However, he considered equivalent effect as not being real due to the difference between source and target languages in terms of emphasis (Newmark, 1998: 38) .

Communicative translation attempts to produce on its readers an effect as close as possible to that obtained in the readers of the original. Semantic translation attempts to render, as closely as the semantic and syntactic structures of the second language allow, the exact contextual meaning of the original (1998: 39).

Description seems quite similar to formal and dynamic equivalences of Nida who put the emphasis on the target culture audience. But as for Newmark, what the effect of a source text was on certain type of readers in a given time and space can not be similar in a different culture and time. Creating the same effect in the minds of

the readers is under question in Newmark's approach and the emphasis is on the source text.

For Newmark, the context is taken into consideration and where necessary some explanations and interpretations are made in literal translation. Furthermore, provided that the idea of equivalence is preserved, the best and the most valid approach both in semantic and communicative translation is literal translation (1998: 39).

In terms of equivalence, Werner Koller carried out an important work in Germany. He drew a distinction between the concepts of equivalence and correspondence. According to Koller correspondence is the subject matter of contrastive linguistics in which two languages are compared in terms of differences and similarities. On the other hand equivalence is in relation with specific ST-TT pairs and contexts (Munday, 2001: 47). Distinction between correspondence and equivalence resembles to Saussure's *langue* and *parole*.

Koller described five different types of equivalences. These are denotative, connotative, text-normative, pragmatic and formal equivalences. Denotative equivalence is about the extralinguistic content of a text. Connotative equivalence is about the style. Text-normative equivalence is about the text types similar to Reiss' text typology. Pragmatic equivalence is Nida's dynamic equivalence and formal equivalence is about form and aesthetics of the text. (Munday, 2001: 47)

Shifts in translation is an important issue in translation theory and practice which has attracted the attention of linguists as well as translation studies scholars in terms of language and cultural exchange. Words or the grammatical and linguistic structures of two different languages may work or act in a completely different manner. Thus, achieving the same effect, as much as it is possible during the rendering period, has been the concern of translators. When a unit of a text does not signify the same concept or idea in the mind of a target reader, the need for making shifts comes to the surface. As Catford says "shifts are departures from formal

correspondence in the process of going from the SL to the TL” (Catford, 1965: 73). A more general definition is “ the small linguistic changes that occur between ST and TT are known as translation shifts.” (Hatim and Munday, 2004: 26).

The term shift is first introduced by Catford in his linguistic system. Catford analyses language as communication, operating functionally in context and on a range of different levels (e.g. phonology, graphology, grammar, lexis) and ranks (sentence, clause, group, word, morpheme). (Munday, 2001: 60). Here, a distinction between the general language and it’s specific usage in a context is drawn, which reminds us Saussure’s distinction between langue and parole. Catford considers two kinds of shifts:

1.Shifts of level: where the SL item at one linguistic level (e.g. grammar) has a TL equivalent at a different level (e.g. lexis)

Ex: Russian	English
igrat	to play
sigrat	to finish playing

2.Shifts of category which are divided into four types:

1.Structure-shifts, which involve a grammatical change between the structure of the ST and that of the TT (a change in clause structure);

2.Class-shifts, when a SL item is translated with a TL item which belongs to a different grammatical class, i.e. a verb may be translated with a noun (change in word class)

3.Unit-shifts, which involve changes in rank (e.g. translating a phrase with a

clause);

4. Intra-system shifts, which occur when 'SL and TL possess systems which approximately correspond formally as to their constitution, but when translation involves selection of a non-corresponding term in the TL system' (Catford, 1965: 80). For instance, when the SL singular becomes a TL plural as the following:

Advice      des conseils

When we come to the second half of the 20th century, a turning point was seen in the course of the translation studies. The emergence of descriptive translation studies proposing new ways of dealing with the process and product of translation before, during and after translation led this phenomena to be studied as an independent field. In the quest of finding a proper name for this new branch of science, what James S. Holmes proposed as a name was translation studies. Secondly, Holmes described translation studies as an empirical discipline which has two main objectives. "(1) To describe the phenomena of translating and translation(s) as they manifest themselves in the world of our experience and (2) establish general principles by means of which these phenomena can be explained and predicted" (Holmes, 2000: 184).

Considering these two objectives, descriptive translation studies (DTS) corresponds with the first objective and theoretical translation studies or translation theory with the latter. Establishing a science brought together the necessity to define every single area of it with proper classifications. Therefore Descriptive Translation Studies was divided into three as product-oriented, function-oriented and process oriented.

1. Product-oriented DTS deals both with description of individual translations and makes comparative analyses of various translations of the same text either in a single language or in various languages.

2. Function oriented DTS describes the function of the translations in the recipient socio-cultural situation (study of contexts rather than the texts)
3. Process-oriented DTS deals with the process or act of translation mainly with what is going on in the minds of the translators (2000: 184-85).

As it is mentioned above, translation theory is the second branch of translation studies which is categorized by Holmes as follows:

1. Medium-restricted translation theories
  - a) Human translation
    - Oral translation (Consecutive and Simultaneous)
    - Written translation
  - b) Mixed or Machine aided translation
2. Area-restricted translation theories
  - a) Restricted with the languages involved
  - b) Restricted with the cultures involved
3. Rank-restricted translation theories
4. Text-type restricted translation theories
5. Time-restricted translation theories
6. Problem-restricted translation theories

Another category of the translation studies is the Applied Translation Studies which deals mainly with translator training, translation aids and translation criticism.

### 3.2. THEORIES RELATED TO TECHNICAL TRANSLATION

In order to explore and understand the theories related to technical translation, it is necessary to put forward once more and briefly the textual aspects of technical texts and to remember the basic qualities of technical writing. Technical writing can be described as writing about a technical subject to convey specific information to a

specific group of readers. Keeping this definition in mind we move on to the properties of technical writing which are clarity, concision and correctness as defined by Herman (Herman, 1993: 11). Regarding these textual aspects it can be said that technical texts are mainly informative, functional and loaded with terminology. Unlike literary texts, the language of technical texts is not surrounded with culture specific words, it does not generally contain the usage of figures of speech and idioms. As it is valid for every kind of translation, translators should have craft or artistic creativity to reproduce the message of the source text in accordance with the norms of the target society. Thus solely concentrating on the source text does not help in translating technical texts. The above mentioned definition and the textual aspects will be our guides in relating the technical translation with theories of translation studies. In the following parts, a framework for a theory of technical translation will be put forward by means of placing technical translation within a functionalist approach developed by Christiane Nord and which later moved into the boundaries of Skopos theory developed by Hans Vermeer.

### 3.2.1 FUNCTIONALIST APPROACHES TO TRANSLATION

It is of course possible to see lots of theories that try to clarify the process of translation but we can not mention a specific one which sheds light to translators of technical texts. As Byrne mentions “technical translation has been largely omitted from much of this work and is rarely dealt with explicitly” (2006: 22). However, theories dealing especially with the functions of translations and that put the emphasis on the target text and culture can mostly be related with technical translation. In this context, it may be said that equivalence-based and source oriented translation theories did not satisfy the requirements of technical translation. Christiane Nord put forward that since the times of St. Jerome and Martin Luther, translation practitioners claimed that in Bible translation and elsewhere, a great amount of translation practice was under the influence of the needs and expectations of the audience which determined how the translation product would function in the target culture. These arguments throughout the ages created a need for a different

approach to translation, especially in technical translation. While dealing with functionalist approaches, it is worthwhile to refer once more Katherina Reiss' text type typology since it paved the way for the functionalist thinking in translation.

Katherina Reiss' text typology is an important step which shifts the direction of the translation studies. Contrastive linguistics was comparing lexical and syntactic units of languages but Reiss' contrastive approach was based on text and preserving the function of the source text became important for her.

Text type restricted theories are more commonly dealing with specific discourse types and genres. As for Katharina Reiss, text is considered to be the level of communication in which equivalence should be looked for. Rather than words and sentences the text as a whole is assessed. As stated by Munday "Her functional approach aims initially at systematizing the assessment of translations" (2001: 73). In accordance with Reiss, the type of the source text is determinant in deciding the target text and the classification of the texts are briefly defined as:  
a)informative b)expressive c)operative d)audiomedial (2000:171-172).

The language function of the informative texts is informative that represents objects and facts. The language dimension is logical and the text is content focused. TT should transmit referential content and the translation method offered is plain prose where necessary explicitations are required. Expressive texts express senders attitude and the language dimension is aesthetic. Form is given more importance rather than content and TT should transmit aesthetic form and a translator should identify the method and adopt the perspective of ST author. Operative texts have an appellative language function and the language dimension is dialogic. These texts are appellative-focused and TT should elicit the desired response. Translation method of the operative texts should be adaptive focusing on achieving the equivalent effect.

Holz Manttari is another scholar who adopts a functional approach. Manttari states the roles of the players involved in translation. These players are the initiator, the commissioner, the ST producer, the TT producer, the TT user and the TT

receiver. As for Manttari all these players have their own primary and secondary goals which are effective in shaping the texts. Translational action focuses very much on producing a TT that is functionally communicative for the receiver. That is to say, rather than the position of the ST, a functional TT is to be formulated. The aim of the final recipient is important and given much more importance.

Translation is defined by Manttari as a purpose-driven, outcome oriented human interaction therefore strategies to be used in translating depend on the foreseen function of the TT which is also applied to translations of technical texts. In relation with translating technical texts “the translator may be a non-expert both in the text type and specific subject area. Extra input of subject-area knowledge would need to come from the ST writer within the company” (Munday, 2001: 77). Translational action of Manttari does not put the burden of specialized knowledge about the subject field on the shoulders of the translator only according to this statement.

Hans J. Vermeer introduced an umbrella for functionalist and communicative theories of translation. In Skopos theory, which was introduced by Vermeer in the 1970's, the emphasis is mainly on the function of the translated text. The underlying principle in this theory mentions that every action has an aim so the act of translation should also have an aim. Therefore, strategies and methods to be used in the translation process should be in accordance with the aim of the translation. As stated by Schaffner the intended purpose of the target text must, as a general rule, determine the translation methods and strategies that are to be employed by the translator to achieve a functionally adequate result (Schaffner, 2009: 117). Why the text is translated and where it will be used are two important questions in this theory. Unlike other functional theories the aim of the source text may not be similar to the aim of the target text. Source text is produced by the author regarding the source culture and the recipients in that particular culture. As the source text author will not consider the needs and cultural backgrounds of any target culture reader while writing his text, than regulations for target culture reader are to be made by the translator. At this point the functionality gains prominence. We can differ skopos

theory from other functional theories by saying that the aim of the source text may not be similar to the aim of the target text in this theory. Some basic rules of the skopos theory are:

1. A translatum (or TT) is determined by its skopos.
2. A TT is an offer of information in a target culture and TL concerning an offer of information in a source culture and SL
3. A TT does not initiate an offer of information in a clearly reversible way.
4. A TT must be internally coherent.
5. A TT must be coherent with the ST.
6. The five rules above stand in hierarchical order, with the skopos rule predominating (Schaffner, 2009: 117) .

Once again it is seen that the emphasis is on the translator due to the fact that he is alone during the process of translation. As it is clear the second rule defines that the function of the ST is an offer of information in the source language and culture and TT should be an offer of information adapted to target language and culture. Because, we understand from the third rule that the offer of information must not be in a clearly reversible way.

The fourth and the fifth rule tell us about the coherence and fidelity. A TT must be internally coherent means that the TT must be designed in a way that the intended addressee would be able to use it. That is to say both the background knowledges of the readers and the situational circumstances should be taken into consideration by the translator during the process of translation. Furthermore fidelity rule states that there must remain at least some relationship between the translatum and the source text after the overriding principle of skopos is achieved (Schaffner, 2009: 117).

Translation of technical texts is a communicative activity which puts the emphasis on the reader. The abovementioned rules of skopos theory clearly

concentrate on the function of the translatum by giving importance to the intended readers. Once the function of the translation and the social backgrounds of the readers are determined, then it is translator's turn to define his or her own strategies in relation with these.

As a conclusion, not only the source text originator or the source text itself but also the function of the translation, the commissioner and the client are important in translation process (Montalt, 2007: 12). For this reason in this study, mainly functional theories and the skopos theory are selected since the underlying rules and principles of these theories can easily be applied in the process of technical translation.

### **3.2.2. BASIC CONCEPTS OF FUNCTIONALIST APPROACHES**

Linguistics based translation theories were mainly dealing with meaning equivalence and putting the emphasis on the creation of the source text elements with their original effects in the target text. Unlike linguistics-based theories, functionalism considers translation as a purposeful activity and asserts that strategies to be applied during translation must be in accordance with the intended purpose. Therefore focusing on the structures of the source text, or the effects of it on the source-text recipient, or the function of the source text which is determined by the author are put aside and the intended function of the target text is given importance in functionalist approaches. In this context, the term "initiator" and "function" gain importance. Initiator is the person who determines the function and translator is the person who uses appropriate strategies to achieve the function. The emergence of functionalist approaches is accepted as an improvement by Byrne since he says that texts are written and translated for a reason (Byrne, 2006: 31). The source text author's function was created regarding the audience in a particular time and space but the translator (or the initiator) may have a completely different audience and time. Hence, he should adopt the target text to this completely new environment.

Hans G. Honig shows the basic aspects of functionalist approaches in a diagram in his article *Positions, Power and Practice: Functionalist Approaches and Translation Quality Assessment* (1997). The distinction is made between functionalist and non-functionalist translations. The role of the translator, translation process, aim of translation and translation tools are described and an analogy is presented in this diagram.

According to Honig, functionalist translator is loyal to his client and he must be visible but non-functionalist translator is faithful to the author and should be invisible. Functionalist translation process should be target text oriented and but non-functionalist translation process should be source text oriented. The aim of translation in functionalist approaches must be communicative and acceptable but in non-functionalist translations linguistic equivalence is sought. In functionalism translation tools are taken from psycho-, sociolinguistics, text linguistics (supporting decisions) but in non-functionalist translations they are taken from contrastive linguistics. Functionalist approaches are building bridges but non-functionalist approaches are crossing rivers (Honig, 2007: 14).

On the other hand Christiane Nord summarizes the basic principles of functionalism in translation in her article *Loyalty and Fidelity in Specialized Translation* (2006). As for Nord there are seven basic principles of Functionalist approaches.

1. Strategies or methods to be used in translation are determined by the purpose of the translation. As it is known there is no single method or strategy that can be applied to a particular text. The intended function of the target text will let the translator to determine an appropriate method or strategy.

2. The purpose of the translation is generally defined in the translation brief by the client who needs a translation. Although translation brief is supposed to act like a guide for the translator, in some cases it may not be explicit enough. Therefore the

translator has to find out the purposes of his client. This can be done by checking the previous experiences of the translator with the client or by asking for more information related with the particular situation.

3. A translation may be called functional when it achieves the intended purpose. Functionality is that the text achieves its purpose. As Nord exemplifies if the purpose of the translation is to inform the readers, it should give the recipients necessary information to be functional, or if the purpose is to amuse the recipients, it should make them laugh or smile.

4. Whether a translation is functional or not is determined by the responses of the readers. As Nord states “functionality is not an inherent quality of a text. It is a quality attributed to the text by the receiver” (2006: 31). As it is known, same readers may react to the same text differently at different moments of their lives. Or readers from different cultural environments will react differently to the same text. Therefore, it is the reader who decides whether a translation works or not.

5. The functionality of a text is determined by the responses of the readers. Then how can someone be sure that a text achieves the intended purpose. Some function markers are added to the text by the producer. These function markers indicate the purpose of the communicative act. If these function markers are recognised by the readers then the text can be said to fulfil its function.

6. An important text producing strategy is finding a balance between new and old information. If a text has too much new information it will not be comprehensible and on the contrary if it contains too little new information, the audience will not find it interesting.

7. In situations when the culture of source text and target text is very distant or when the time of the source text is distant from the target text, then the intended function and the achieved function may be different (Nord, 2006: 31).

### 3.2.3. STRATEGIES USED IN FUNCTIONAL TRANSLATION

The pioneering work of Vinay and Darbelnet notes the differences between languages and they made comparative linguistic analysis between French and English and identified different translation strategies and procedures. Vinay and Darbelnet are considered to be among the first scholars who proposed and dealt with the terms of translation strategies and methods. In this part of Chapter III, the differences between the definitions of the terms translation methods, translation strategies and translation techniques will be given first by referring to the works of Vinay and Darbelnet and then referring to the proposal of Molina and Hurtada Albir.

The two general translation strategies identified by Vinay and Darbelnet are direct translation and oblique translation. Direct translation is used as synonym for literal translation whereas the latter is regarded as free translation.

1. Direct translation: Direct translation is a synonym for literal translation and has three sub-categories

a) Borrowing: What is meant by borrowing is to transfer the SL word directly to the TL. In this group there are words such as tequila, rouble, glasnost and perestroika, that are used in English and in other languages to fill the semantic gap. Sometimes these kinds of borrowings are used to add local colour.

b) Calque: It's a special kind of borrowing where the SL expression or structure is transferred in a literal translation. The difference is that not a single word but an expression or structure is borrowed.

French: Compliments de la Saison

English: Compliments of the Season

c) Literal Translation: Vinay and Darbelnet described this as word-for-word translation which is most common between the languages of the same family and

culture. First the translator should check if the meaning is fully preserved, if it's not then he can sacrifice the literalness. Situations in which a literal translation can be unacceptable are listed as follows:

It is acceptable to sacrifice literalness when a translation;

- 1.gives a different meaning
- 2.has no meaning
- 3.is impossible for structural purposes
- 4.doesn't have a corresponding expression with the metalinguistic expression.
- 5.corresponds to something at a different level of language (Vinay and Darbelnet, 2000: 131)

Vinay and Darbelnet say that in those cases where literal translation is not possible oblique translation must be used.

2.Oblique Translation: Oblique translation is a synonym for free translation and it has four sub-categories

2.a) Transposition (Change in the word class): This is the change of one part of speech for another without changing the sense. Transpositions can be obligatory when a language has a grammatical unit which does not have a correspondence in an other language. For example “‘des son lever’ in a particular past context would be translated as ‘as soon as she got up’” (2000: 132). Because, English language lacks a noun which corresponds “‘lever’”.

Transpositions can also be optional which is just the opposite of obligatory shifts mentioned above. In these situations translators have two alternative correspondences and can choose one of them. For example when literally translated the sentence ‘As soon as she got up’ has a correspondence in French as ‘des qu’elle s’est levée’ and an alternative correspondence as ‘de’s son lever’ which is regarded as transposition.

2.b) Modulation (Change in semantics): Modulation as defined by Vinay and Darbelnet is a variation of the form of the message obtained by a change in the point of view and in the semantics. Modulations can also be both Obligatory and Optional. For example it is obligatory when the literal translation of the phrase in English ‘the time when’ is ‘the moment where’ in French.

English: the time when

Modulation: ‘le moment où’

Literal translation: the moment where

On the other hand it is optional when the literal translation of the sentences ‘it’s not difficult to show’ has a literal translation in French as ‘it’s easy to show’

Optional:

English: it’s not difficult to show

Modulation: ‘il est facile de démontrer’

Literal translation: it’s easy to show

As languages have different grammatical structures, translation of a structure in SL may have a correct grammatical utterance but it may be regarded as unsuitable in TL. In these situations as Vinay and Darbelnet states the modulation is justified.

2.c) Equivalence (Completely different translations e.g. proverbs): According to Vinay and Darbelnet, same situation can be described by different stylistic or structural means. In these situations translators are dealing with the method that originates equivalent texts. Especially it is used in translating idioms and proverbs where we should not forget to keep in mind the sense not the image.

French: ‘comme un chien dans un jeu de quilles’

Literal translation: like a dog in a set of skittles

Equivalence: like a bull in a China shop.

2.d) Adaptation (Change of situation due to cultural differences): This method is used when a cultural reference does not exist in the target culture. For example Vinay and

Darbelnet suggest that a cultural connotation of a reference in an English text to the game cricket might be translated into French by a reference to the Tour de France. As it is seen in the example translators have to create a new situation that can be considered as equivalent.

In the comparative analysis of Vinay and Darbelnet seven translation strategies under two categories were analysed. Borrowing, calque and literal translation were under the category of Direct translation and transposition, modulation equivalence and adaptation were studied under Oblique translation. All these strategies are operating on three levels and these are:

- 1.the lexicon
- 2.the grammatical structures
- 3.the message (Vinay and Darbelnet, 2000: 132-136).

Message is used to refer to the situational utterance and some of the higher text elements such as sentence and paragraphs. At the level of message, Vinay and Darbelnet discuss some strategies like compensation, loss and gain which are defined as;

A translation technique used to compensate for translation loss. The translator offsets an inevitable loss at one point in the text by adding a suitable element at another point, achieving a compensatory translation gain. For example, an informal text in French using the second personal pronoun tu might be rendered in English by informal lexis or use of the first name or nickname. Compensation is an interpretive sense, restoring life to the TT, is the fourth 'movement' of Steiner's hermeneutic process. (Hatim and Munday, 2004: 31)

At this point it would be worthwhile to look at what the definitions of the terms translation methods, translation strategies and translation techniques are. According to Molina and Hurtado Albir's proposal, published in META (2002), method, strategy and technique should be distinguished since they think that they are essentially different categories.

As mentioned by them:

Translation method refers to the way a particular translation process is carried out in terms of the translator's objective, i.e., a global option that affects the whole text. There are several translation methods that may be chosen, depending on the aim of the translation: interpretative-communicative (translation of the sense), literal (linguistic transcodification), free (modification of semiotic and communicative categories) and philological (academic or critical translation)(2002: 508).

Hence it can be concluded that a translation methods affects the whole text depending on the aim of the translation whereas translation techniques function in micro-units of the text. Furthermore techniques can be studied in relation with the method chosen.

No matter what the method chosen by the translator is, there may be some problems encountered by the translator during the translation process. According to Molina and Hurtado Albir these problems may arise due to a particularly difficult unit or because there may be a gap in translator's knowledge. At this point they say that strategies are activated. As for Molina and Hurtado Albir "Strategies are the procedures (conscious or unconscious, verbal or nonverbal) used by the translator to solve the problems that emerge when carrying out the translation process with a objective in mind"(2002: 508).

After the differences among strategies, methods and techniques are described, Molina and Hurtado Albir give more importance to translation techniques that are employed by the translator in micro-units. These techniques are generally applied by the translator in a functionalist context as put forward by them, translation techniques

are developed as “the result of a choice made by a translator (whose) validity will depend on various questions related to the context, the purpose of the translation, audience expectations etc.”(2002: 509). It is understood that the translation techniques should be evaluated within the context because the context makes them meaningful. In the final section of this part, translation techniques which are included in the proposal of Molina and Hurtado Albir will be summarized such:

- Adaptation. To replace a ST cultural element with one from the target culture, e.g., to change *baseball* for *fútbol* in a translation into Spanish.
- Amplification. To introduce details that are not formulated in the ST: information, explicative paraphrasing, e.g., when translating from Arabic (to Spanish ) to add *the Muslim month of fasting* to the noun *Ramadan*. Footnotes are a type of amplification. Amplification is in opposition to reduction.
- Borrowing. To take a word or expression straight from another language. It can be pure (without any change), e.g., to use the English word *lobby* in a Spanish text, or it can be naturalized (to fit the spelling rules in the TL), e.g., *gol, fútbol, líder, mitin*.
- Calque. Literal translation of a foreign word or phrase; it can be lexical or structural, e.g., the English translation *Normal School* for the French *École normale*.
- Compensation. To introduce a ST element of information or stylistic effect in another place in the TT because it cannot be reflected in the same place as in the ST.
- Description. To replace a term or expression with a description of its form or/and function, e.g., to translate the Italian *panettone* as *traditional Italian cake eaten on New Year's Eve*.
- Discursive creation. To establish a temporary equivalence that is totally unpredictable out of context, e.g., the Spanish translation of the film *Rumble fish* as *La ley de la calle*.
- Established equivalent. To use a term or expression recognized (by dictionaries or language in use) as an equivalent in the TL, e.g., to translate the

English expression *They are as like as two peas* as *Se parecen como dos gotas de agua* in Spanish.

- Generalization. To use a more general or neutral term, e.g., to translate the French *guichet, fenêtre* or *devanture*, as *window* in English.
- Linguistic amplification. To add linguistic elements. This is often used in consecutive interpreting and dubbing, e.g., to translate the English expression *No way* into Spanish as *De ninguna de las maneras* instead of using an expression with the same number of words, *En absoluto*. It is in opposition to linguistic compression.
- Linguistic compression. To synthesize linguistic elements in the TT. This is often used in simultaneous interpreting and in sub-titling, e.g., to translate the English question *Yes, so what?* With *¿Y?*, in Spanish, instead of using a phrase with the same number of words, *¿Sí, y qué?*. It is in opposition to linguistic amplification.
- Literal translation. To translate a word or an expression word for word, e.g., *They are as like as two peas* as *Se parecen como dos guisante*, or, *She is reading* as *Ella está leyendo*.
- Modulation. To change the point of view, focus or cognitive category in relation to the ST; it can be lexical or structural, e.g., to translate as *you are going to have a child*, in Arabic instead of, *you are going to be a father*.
- Particularization. To use a more precise or concrete term, e.g., to translate *window* in English as *guichet* in French. It is in opposition to generalization.
- Reduction. To suppress a ST information item in the TT, e.g., *the month of fasting* in opposition to *Ramadan* when translating into Arabic.
- Substitution (linguistic, paralinguistic). To change linguistic elements for paralinguistic elements (intonation, gestures) or vice versa, e.g., to translate the Arab gesture of putting your hand on your heart as *Thank you*. It is used above all in interpreting.
- Transposition. To change a grammatical category, e.g., *He will soon be back* translated into Spanish as *No tardará en venir*, changing the adverb *soon* for the verb *tardar*, instead of keeping the adverb and writing: *Estará de vuelta pronto*.

- Variation. To change linguistic or paralinguistic elements (intonation, gestures) that affect aspects of linguistic variation: changes of textual tone, style, social dialect, geographical dialect, etc., e.g., to introduce or change dialectal indicators for characters when translating for the theater, changes in tone when adapting novels for children, etc (Molina and Hurtado Albir, 2002: 509-10).

#### 3.2.4.BASIC ASPECTS OF SKOPOS THEORY

In the history of translation studies it is seen that in the 1980's translation was regarded as a cultural transfer rather than a linguistic activity which posits finding equivalent lexical and grammatical units. The function of the target text gained prominence and translation was seen as an action accomplished by the translator in accordance with a purpose. According to skopostheorie which creates a frame for functionalist approaches, the purpose of the translational action is a key determinant in a translation process, and there are three kinds of purpose in this context. First one is the purpose of the translator which is perhaps earning a living. The second one is the communicative purpose intended by the target text in the target situation. This can be for example instructing, amusing or appealing the readers and the third one is the purpose of a particular translation strategy or procedure (Nord, 1997: 27-28).

As the translational action is determined by its skopos than preparing a functional TT that is suited to the needs of the readers is very important. This is summarized by Vermeer as follows:

Each text is produced for a given purpose and should serve this purpose. The skopos rule thus reads as follows: translate/interpret/speak/write in a way that enables your text/translation to function in the situation in which it is used and with people who want to use it and precisely in the way they want it to function (Vermeer 1989:20 in Nord 1997: 29).

There may be a variety of skopoi in a translational action. Translator's choice of a particular skopos will act as a justification for him/her. As described by Nord "this rule is intended to solve the eternal dilemmas of free vs. faithful translation, dynamic vs. formal equivalence, good interpreters vs. slavish translators and so on" (Nord, 1997: 29). Thus it can be said that Skopos theory gives the possibility of the same text being translated in different ways according to the purpose of the TT and the commission assigned to the translator.

The purpose or the skopos, under which principles of translating are decided, is negotiated between the client and the translator. Client is the person who needs a translation for a specific purpose and hires a translation for this particular job. Before the act of translation, the client or the initiator would mention the purpose in detail by drawing a framework in which the audience, time, place, occasion, medium and the function of the target text are clearly stated. This called as translation brief by Nord. According to Nord what kind of translation is needed should be specified in translation brief. It should be noted that the translation brief tells only the intended function not the strategies or the methods to be used. In a way, by using his or her own competency the translator is free to use any strategy or method during the translating job (1997: 30).

When the translator and the client can not agree on the type of the target text which would best suit to the intended purpose than there are two options for him or her. As Nord states: "the translator may either refuse the assignment or refuse any responsibility for the function of the target text and simply do what the client asks for" (1997: 31). However in many cases a competent translator may work out the skopos by simply analysing the translational situation.

In the underlying principles of the skopos theory, translation was accepted as an offer of information by Vermeer. An offer of information derived from the source text is also an offer of information for the recipients in the source culture. Naturally a source text author takes source text recipients into consideration while composing his text. Hence, it is regarded as the translator's responsibility to adopt the source text

for the target recipients. As stated by Nord “ a text is made meaningful by its receivers and for its receivers” (1997: 31). It should be noted that same text would offer different information for different receivers and that even same text would offer different information for the same readers in different times. Because of this dynamic nature of information, Vermeer states that “the target text should conform to the standart of intratextual coherence” (Reis and Vermeer, 1984: 109 in Nord, 1997: 32) which means that the message should be adopted to the target text receivers. They would be able to comnprehend it and the intended function of the translation should fulfill its duty on the recipients.

On the other hand, there must be certain relationship between ST and TT which is called as the intertextual coherence by Vermeer. Hence, the translator should also be able to achieve intertextual coherence between the ST and TT in relation with their respective functions in their environment.

### 3.3.CHALLENGES IN TECHNICAL TRANSLATION

The act of translation in the modern world is carried into practise in accordance with a plan and there are some steps to be followed. In terms of technical translation parties that take role in this plan are worth mentioning. Byrne puts forth that the parties involved in the technical translation are:

Document Initiator  
 Writer/text producer  
 Translation Initiator  
 Translator  
 User (Byrne, 2006: 12)

When the translator is assigned with a job, there are several questions that he should ask himself and negotiate with the commissioner. One of the first task is to determine the text type of the source text. What follows is to understand who is more important at the end of the translation, the author of the source text or the reader of

the target text. Another question at this stage is to clarify the purpose or the skopos of the translated text. What is meant here is to specify to whom this text will serve and what the objectives will be.

One of the most problematic constraint in technical translation is the time given to the translator to deal with the text. In our country, the act of translation is not considered to be a professional job by the customers. Therefore commissioners and the translators have to be in a competition with time. This restriction of time effects the quality of the translation and forces the translators to do their job unprofessionally. As it is known translators are not to dive into the act of translation without doing some researches about the subject matter. Moreover, they have to determine the text type and skopos of the source text. Reading the parallel texts is another job of the translator to ensure correct terminology. Yet, when translators are restricted in terms of time they can not do their jobs properly.

Competition between the translation agencies is another factor which threatens the quality of the translations. Low prices per pages forces the agencies to find unprofessional translators who are not even having a university degree. Those with a university degree have a workload to compensate their losses due to the low prices. In this part of the study constraints in technical translation with which the translator may come across will be dealt with. The challenges will be analysed under three categories which are terminology, text types and skopos.

### 3.3.1. CHALLENGES WITH RESPECT TO TERMINOLOGY AND FORM

What distinguishes technical texts from the literary ones are that they are plain in prose, no artistic ornamentations are made, figures of speeches are not used and the words in these texts are in their exact meanings. One of the problems that translators encounter during the translation process of these texts is the specialized vocabulary or terminology. According to Oxford Advanced Learner's Dictionary the

word terminology means “the set of technical words or expressions used in a particular subject” In relation with this definition it can be assumed that words or expressions used in a particular subject are loaded with a special meaning that differentiates them from the everyday meanings. Unless the translators of technical texts are experts in the field and they are familiar with the subject matter, they may misinterpret these vocabularies and expressions. On the other hand, terminology of the source culture can be different from the target one. Therefore, to find the correct correspondence the translator should read some parallel texts and be familiar with the terminology used in the subject matter.

As Gould mentions “Most successful technical writers must necessarily become an eternal student” (Gould, 2008: 21). The quotation above is telling what a technical writer must do. Both writers and translators of technical texts can be considered to be similar because they must be highly skilled experts. To keep up to date, they have to review lots of materials and do necessary researches. By being an eternal student, they can be aware of the new words and phrases in the realm of science and technology.

### 3.3.2. CHALLENGES WITH RESPECT TO TEXT TYPE

Conveying factual information is predominant in the translation of technical texts. When Reiss’ text typology was analysed, it was mentioned that technical texts were mainly informative. Technical texts are written to inform the readers about a certain subject. In most situations this function is preserved in translation. For instance a manual is written to instruct the readers and tell them what to do when they have a problem with the product and it also tells them what not to do in order not to end up with unwanted situations. Pure information is given to the users and the language functions in the manuals in an informative way. In parallel, the target audiences will also need the same information like the source audiences. Therefore,

the translator should do his best to maintain the same function. The problem about text types can be the possible hybridity of texts. In some cases, a text may have more than one function. It can inform the readers and at the same time express or operate the readers. Following the same pattern as the writer of the source text did, may not be a solution for the translators since the audiences belong to different cultures. Hence, the predominant function can be given more importance by taking the needs of the audiences in consideration.

To conclude it can be said that style suitable to type of technical document and audiences must be adopted by the translators. For example a text which is describing a manufacturing process will use a different terminology and style depending on whether it is intended for engineers or laypeople.

### 3.3.3. CHALLENGES WITH RESPECT TO SKOPOS OF A TEXT

There are certainly lots of issues to be taken into consideration while translating a text from one language into another. To elaborate further on the issue, it can be said that translation is a kind of adaptation in that the translator adapts the text in accordance with where it will be used, what the function of the target text will be and what type audiences will read the text. Skopos of a text is the aim or the purpose of the text. Why is it written and in what ways will the text function should be the primary concerns of the writer and therefore the translator. In the act of translation there are two texts; first one is the source text and the latter one is the target text. The skopos of the original text may sometimes be different from the target text. To illustrate, a text describing the process of a production and written for the engineers in the source culture can be translated to lay people in the target one. Furthermore, the potential customers of a product in one country may completely belong to a different socio-economic group in another country. For example those who prefer to drive a Mercedes can be aristocrats in one country whereas the potential customers can be rich people among middle-class in another country. Considering these examples, it can be said that before translating a text, a translator should discuss first the potential readers and then the intended function which the translation will

undertake in the target culture with the commissioner and try to find or establish an appropriate skopos for the text. If the text is translated without considering these issues, it will lack functionality and usability in the target society.

## CHAPTER 4: AN ANALYSIS OF THE CHALLENGES IN TECHNICAL TRANSLATION WITH RESPECT TO FUNCTIONALIST APPROACHES

In this part of the study, the analysis of the sample texts will be descriptive comparative-regarding the function of the source text and its text-type qualities on one hand and the analysis of text-type qualities and the functional elements of the translated text on the other hand in order to move on within the boundaries of a functionalist approach. In that sense, every decision in the act of translation with respect to text-type and function will be taken up and assessed with a view to an identified function and skopos of the translation. The functionalist approaches to translation imply the materialization of an act of communication, not an act of solely linguistic transference.

### 4.1.SAMPLE TEXT I

#### Driving in style – your own

Adjust your car based on your mood with the optional dynamic handling package\* designed for the new C-Class. The electronically controlled damping system continually adjusts to the driving situation or road conditions. Whether you'd prefer a particularly sporty or especially comfortable ride, you can decide for yourself with the simple touch of a button.

With the dynamic handling package the C-Class is 15 millimetres lower on the road. Many equipment features such as the integrated sport speed-sensitive steering with a tighter ratio lend it a particularly dynamic character. With a push of a button you can activate the sport driving mode and experience all the advantages of a sports car: the gas pedal characteristic changes and there is more direct contact with the street due to the specific damping adjustment. With the dynamic handling package, 6-cylinder models with automatic transmission are upgraded to the 7G-TRONIC Sport 7-speed automatic transmission with shorter shift throws to provide more dynamism.

Or would you prefer a more comfortable ride? Then just select the comfort driving mode and you'll be gliding gently over the streets. One car, two personalities.

#### 4.1.1. THE ANALYSIS OF THE SAMPLE TEXT I WITH RESPECT TO ITS TEXT TYPE

This text is taken from the web-site of Mercedes Benz. When the text is analyzed in terms of text type we see that the text is informative, operative and expressive at the same time. New innovative motor technology of the company is introduced and this introduction is done in a persuasive way to convince the reader. Hence the web-site is launched for advertisement, the technological developments within the company is introduced via the internet. The intention of the writer is making the lay people or the potential customers aware from the company's new products. As a new technology is the subject matter, some technical words are used. However, the text is designed in a manner which carries the reader away and which causes the reader to visualise or to imagine him or herself as the driver of the car which is equipped with the dynamic handling package. Therefore our analysis of the target text has three dimensions; the first one will predominantly focus on the informative content, the second one will focus on the operative content of the text and the third one will be as regards the expressive function of the text.

#### 4.1.2 THE ANALYSIS OF THE SAMPLE TEXT I WITH RESPECT TO ITS SKOPOS

To define the skopos of the text it should be beneficial to work out why a text whose linguistic features discussed above is created and broadcasted in the company's web-site. The aims of the writer in producing a text like this can be various. However the most striking of them is first to inform the readers and then amaze them with the new technology. Definitely a commercial purpose is also in question. Because of the company's leading role in the car industry, this purpose is not explicitly mentioned but the readers will eventually say that "Mercedes did the best again" Hence, it can be said that the function of this text is to inform and amaze the potential customers and this admiration will further lead them to buy the new Mercedes.

#### 4.1.3 THE ANALYSIS OF THE SAMPLE TEXT I WITH RESPECT TO FORM

The analysis of formal aspects will be carried out in accordance with the textual characteristics mentioned in section 5.1.1. These characteristics were stated to be informative, operative and expressive. As regards the informative function of the text, facts about the new dynamic handling package are presented plainly in the text. Simple Present Tense is used in telling the general facts and truth and furthermore both the usages of adjective phrases and adverbs in the sentences give detailed information about the subject matter as seen in the following examples on the sentence and phrase levels:

*The electronically controlled damping system continually adjusts to the driving situation or road conditions.*

*The electronically controlled* adjective phrase

*continually* adverb

Informing the reader by encouraging them to make comparisons and by giving examples is another quality that attracts the reader's attention. With using a comparative form (*lower*) as in the sentence:

*With the dynamic handling package the C-Class is 15 millimetres lower on the road,*

the writer encourages the reader to compare the new C-Class with the previous one in order to get informed by stating the difference between the new and the old. Furthermore giving examples by using a phrase like *such as* is to give detailed information to the reader as seen in the following example:

*Many equipment features such as the integrated sport speed-sensitive steering with a tighter ratio lend it a particularly dynamic character.*

In the sentences above, the usage of adjectives like *integrated*, *sport*, *speed-sensitive* and the reduced adjective clause *with a tighter ratio* are all describing and giving information about the noun *steering*.

As for the operative function of the text, it can be said that the following four parts taken from the text are intended by the source text writer to convince the reader to think about the new Mercedes C-Class. In general these sentences tell the reader what they can do with the new dynamic handling package with using a very personal and friendly tone. The usage of the pronoun **you** is directly referring to the reader and all the readers are considered to be potential customers.

*Adjust your car based on your mood with the optional dynamic handling package\* designed for the new C-Class.*

The sentence above is telling the readers that they have an alternative to adjust their cars with the dynamic handling package. In this sentence the writer of the text is in a way speaking with the reader. The language is used to let the readers clearly understand how and when to use the new optional package. By using the word mood or with calling the mood of the readers into action, the writer wants to effect the readers and provide them to imagine the exact moment of driving. Readers with a more imaginative brain can even assume that they are sitting on the front seat of the new C-Class and using the new dynamic handling system. Words and phrases like *sporty and comfortable ride* are adding an advertisement character to the sentence. The personal and genial tone of the following sentence is kept by the author of the text with the usage of the pronoun **you**.

*Whether you'd prefer a particularly sporty or especially comfortable ride, you can decide for yourself with the simple touch of a button.*

At the end of the sentence the phrase **simple touch of a button** is telling how easily the system can be managed. Rather than the informative role of the phrase the operative function is drawing attention. Hence a very ordinary and daily language is used to create a warm atmosphere.

Both informing and persuading the reader is the primary focus in the following sentence:

*With a push of a button you can activate the sport driving mode and experience all the advantages of a sports car: the gas pedal characteristic changes and there is more direct contact with the street due to the specific damping adjustment.*

Words are clearly chosen to convince the potential customers about the new technology. An imaginative atmosphere is created and it helps the readers to visualise the car and how effective the dynamic handling package is.

As for the expressive function of the text the following sentence taken from the text can be given as an example:

*Or would you prefer a more comfortable ride? Then just select the comfort driving mode and you'll be gliding gently over the streets. One car, two personalities.*

The expressive function of the text rises to a peak in this final sentence. The reader is included in the situation with the usage of a question at the beginning. How would the reader act in accordance with the question is explained with an imperative sentence which is very clearly addressing the audience. *Gliding gently over the streets* is adding a visual value and attracting the audience which serves to the expressive function of the text which is intended to persuade and move the reader rather than conveying information. *One car, two personalities* is placed at the end of the text. This phrase strengthens the advertising value of the text. An ending like that aims to form an unforgettable place in the minds of the readers.

#### 4.1.4 THE ANALYSIS OF THE SAMPLE TEXT I WITH RESPECT TO TERMINOLOGY

In analysing the text type, it was mentioned that this text was both informative, operative and expressive. Since the readers are considered to be everyone who is fond of innovations in the car industry, in general non-technical lay terms are widely used. Terminology which excludes the lay people out in technical texts does not stand as barrier in this text. Because words about car manufacturing

and technology can be easily understood within the context. On the other hand, people who have a very limited information about the already mentioned technology will have some comprehension problems with the following words as such:

*Adjust, optional, handling package, damping system, steering, tighter ratio, direct contact, gas pedal, damping adjustment, automatic transmission, 7G-TRONIC Sport, shift throws*

## ANALYSIS OF THE TRANSLATION OF SAMPLE TEXT 1

### **Kendi stilinizde sürüş keyfi**

Otomobilinizi ruh durumunuza göre ayarlayın: opsiyonel dinamik yol tutuş paketi\* yeni C-Serisi için tasarlanmıştır. Elektronik olarak kumanda edilen amortisör sistemi sürekli olarak sürüş durumu veya yol koşullarına göre ayarlanır. Özellikle sportif bir sürüş stili veya konforlu bir sürüş tercihiniz olabilir, buna yalnızca bir tuşa basarak karar verebilirsiniz.

C-Serisi dinamik yol tutuş paketiyle yolda 15 milimetre daha alçaktır. Daha sıkı oranlı entegre sportif hız-duyarlı direksiyon gibi birçok ekipman özelliği ona kişisel bir dinamik karakter verir. Bir tuşa basarak spor sürüş moduna geçebilir ve bir spor otomobilin bütün avantajlarını deneyebilirsiniz: gaz pedal karakteristiği değişir ve özel amortisör ekipmanı sayesinde yolla daha fazla temas alanı sağlar. Otomatik şanzımanlı 6 silindirli modeller, dinamik yol tutuş paketiyle, daha çok dinamizm sağlama amacına yönelik daha kısa vites değiştirme süreleriyle 7G-TRONIC spor/vitesli otomatik şanzımana terfi etmiştir.

Belki de daha konforlu bir sürüşü tercih ediyor olabilirsiniz. O halde, yalnızca konforlu sürüş modunu seçin ve caddelerde usul usul süzülün. Bir otomobil, iki kişilik.

### 4.1.5 THE ANALYSIS OF THE TRANSLATED TEXT I WITH RESPECT TO ITS TEXT TYPE

The text type of the original text was previously defined as being both informative, expressive and operative. After analysing the translated version, it is seen that same text types are preserved by the translator. The readers are informed about the new technology which is just on the verge of appearing in the market and also they are being affected indirectly by the translator to think about the new Mercedes C-Series. Hence, it can be assumed that loyalty to the text types is achieved by the translator. To strengthen the operative function of the text the translator just as the writer speaks with the readers in a very friendly manner and tells them what it can be done with the new technology. The differences between cultures and languages are not considered to be a problem in the preservation of the text types

in translation. The translator, who is also the initiator in the skopos terminology, managed to inform and affect the readers.

#### 4.1.6 THE ANALYSIS OF THE TRANSLATED TEXT I WITH RESPECT TO ITS SKOPOS

The reason to write and broadcast a text like this in a company's web-site is unquestionably a commercial one. Hence, when the translator was commissioned with the job of translation, he was aware of this reason and he tried to create the similar functions in his translation. Mainly these intended functions of the text are first informing the readers and then persuading them to buy the mentioned product, that is the new C-Series. Both the writer and the translator speak with the readers in a very friendly tone for the sake of this purpose. But the audience in European society is considered to be upper middle class citizens whereas in Turkey the situation may change in terms of the qualities of the intended audience. In Turkey the brand Mercedes is preferred only by rich regardless of being educated. Hence, it can be said that the translation is extremely source oriented in its intention to address intellectually upper class people and it can be concluded that functional adaptation could not be fully achieved.

The differences in functionality and skopos of the ST and TT, bring to mind certain approaches to overcome these functional restrictions. In the first place heavy terminological borrowings in translation could be overcome by paraphrasing method to be clearer about the technological equipment of Mercedes C-Class. For instance for dynamic (hızlı ve kolay uyumlu), for optional (isteğe bağlı), for style (biçim tarz) could be given as translations for these terminological usage by means of amplification or description methods of translations as mentioned in Chapter 3.2.3.

#### 4.1.7 ANALYSIS OF THE TRANSLATED TEXT I WITH RESPECT TO ITS FORM

The layout of the translated text and all other physical qualities such as the number of paragraphs, the font type and size are all identical with the original text. While analysing the formal qualities of the source text, the text is dealt within three dimensions as regards the function of the language. The informative function of the text has been achieved by some sentences by means of a wide use of present simple tense and passive structures. The translator did not change this linguistic format and he used the same grammatical structures in the target text. The second dimension that is the operative function of the text has been formulated by sentences which tell the reader what to do. These sentences are put in the text to convince the reader about the new Mercedes C-Class. Thus these operative sentences have been transferred with parallel grammatical structures in the target text. Finally as for the expressive function of the text the translation of the phrase as:

*Gliding gently over the streets* (Caddelerde usul usul süzülün) can be considered as a successful one in corresponding the expressive function in the target text but the translation of *One car, two personalities* (Bir otomobil iki kişilik) confuses the minds of the readers. Hence it can be conceived from this phrase that the new C-Class is a cabrio car designed for only two passengers.

#### 4.1.8 THE ANALYSIS OF THE TRANSLATED TEXT I WITH RESPECT TO TERMINOLOGY

Terminology, in the context of a car industry is not mainly standing as a barrier in front of the readers. Technical words used in the text can be comprehended by the lay people. Furthermore, both the writer and the translator are aware of the fact that those interested in car technology and following the internet pages for the innovations are quite familiar with the terminological words. Reliance on the source text in terms of terminology is seen in the translation. Since the technical

terminology is imported from the west along with the technology itself, the translator preferred borrowing method in the following words as such:

Dynamic:     dinamik  
Optional:    opsiyonel  
Style:       stil  
Integrated:   entegre  
Equipment:   ekipman  
Mode:        mod  
Characteristics: karakteristik

It can be said that, through borrowing the source terminology for the Turkish translation, the translation becomes to a certain extent confusing for the intended Turkish audience who may not be familiar with words such as mod, entegre, dinamik etc. no matter how much they are interested in cars and their qualities.

#### 4.1.9. DISCUSSION

Sample Text I's translation with respect to its mixed text type and its skopos which aims to function as a commercial commodity seems to be acceptable since a functionalist approach has been adopted by the translation.

However, in terms of overcoming challenges with respect to terminology, it can be said that the technical terminology has also been transferred into Turkish with their functional equivalences used in normal technical texts. However, since this text has a commercial quality as well, the borrowing method is a little confusing to the readers of the text who may not have technical vocabulary. In that sense adaptation method or description could have been used to achieve a more functional acceptability.

## 4.2.SAMPLE TEXT II

### 3.4. Practical application of automation systems

The simplest and the most typical example of the control system used in practice is the adjustment of the output variable of the object. The input of the control system is the preset value. The control task is eliciting the signal equal to the preset value. The actual value is taken from the preset value which gives us the adjustments error signal which is transmitted to the adjuster's input. Here, the error value is processed to the controlling signal, transmitted to the input of the object. The algorithm of the adjuster is aimed at minimising the error value.

In the world around us, we can encounter many examples of this type of control systems, whose task is the adjustment of one variable, such as:

- adjustment of water level in a reservoir (river dam, flush reservoir),
- temperature adjustment (irons, refrigerators),
- rotational speed adjustment (blenders, drillers).

On these examples, we can identify certain characteristic properties of control systems.

The signal of the preset value must have its source called a **presetter**. The summation node is virtually a physical element realising the task of addition/subtraction of signals. The signals that reach the node must, therefore, be of the same type and have the same physical character. In the feedback path, there is always a measuring device, generally consisting of two parts: measuring sensor and signal converter. The measuring sensor is responsible for measuring output signal of the object, while the converter converts the signal to such a form which it enables it to be subtracted from the preset value in the summation node. On the other hand, the preset value signal does not need to have the same physical character as the controlled output signal of the object. The summation node generates the error signal at the output, which is the input signal of the adjuster. The adjuster realises the control task, but the signal from the adjuster typically is not transmitted directly to the object, but to the actuating device, which realises the task of supplying power to the object. Let us consider the following example: if a water container is the object and the control task is adjustment of the water temperature, the adjuster will generate the signal controlling the heater, which functions as the actuating device.

Signals transmitted within the control system are related to physical values they represent. It applies both to output and controlling signals. They can be generally divided into four groups:

- **mechanical signals** – they can be generated by cams, levers, etc. A typical control system using mechanical signals is a barrel organ – pins appropriately arranged on the rotating cylinder cause small hammers hit the strings, thus generating the melody. The pace of the cylinder rotation affects the speed on the melody. In flush reservoirs with floating flush valve, the signal informing about the water level also has mechanical character. When the water rises, the floating flush valve covers the water supply nozzle until it is tightly closed. By changing the valve lever length, you can adjust the level to which the reservoir is filled with water.
- **hydraulic signals** – they are most frequently generated by flow sensors (measuring reducers) or pressure sensors. The example can be the adjustment of liquid level in a tank based on the pressure on the bottom of the tank.
- **pneumatic signals** – they are generated by diverse pressure sensors (diaphragm or bellow sensors). They are widely used in automation devices using pneumatic drives, such as **pressure adjustment devices of air production units**.
- **electric signals** – they are currently the most popular signals. For the majority of physical values, measuring sensor converters have been designed, owing to which we can achieve the measured value in the form of an electric signal: analogue or digital one. For example, in most of engine-driven household appliances, the preset rotational speed is adjusted by a potentiometer.

#### 4.2.1 THE ANALYSIS OF THE SAMPLE TEXT II WITH RESPECT TO TEXT TYPE

Text type is informative and the aim of the text is to give pure information to the reader about the basic terms of automation. The text was compiled by a Computer Engineer and translated by a translation agency located in Ankara. The text was intended to a group of international scholars who were working together under VILAROB Project and delivered to the participants as handouts. The text is written in plain prose and the sentences are following each other in accordance with a logical plan. Mainly sentences are acting as dictionary definitions and they are all loaded with information. There aren't any confusions and ambiguities in the text for those who have background information about the topic.

#### 4.2.2 THE ANALYSIS OF THE SAMPLE TEXT II WITH RESPECT TO SKOPOS

As it is mentioned above, this text was compiled by a computer engineer and delivered to a group of a participants in a conference. The conference was held as a part of the international VILAROB Project which means Virtual Laboratory for Automation and Robotics. Participants in the conference were from Germany, Poland and Turkey. Mainly they were academicians concerned with automation and Robotics. However, some lay people from the sector were also participants in this Project and the translation of the text was done for them. The participants from the sector did not know English and they were not familiar with the subject matter as the academicians. Hence the purpose of this text that is intended by the computer engineer is to give information about the subject matter to the participants. In a way it functions as an introduction of the Project.

#### 4.2.3 THE ANALYSIS OF THE SAMPLE TEXT II WITH RESPECT TO FORM

The text is dealing with a particular topic that is the practical application of the automation systems. Simple Present Tense is widely used and the aim of the writer is to convey information which is valid all the time and which is considered to be universal. The knowledge is presented in a schematic order and each sentence functions as the definition of the previous one. It is observed that a process is tried to be made clear. Since the text is a technical one, the writer avoided the usages of the linking words such as (first, second, third ..etc.) in describing the processes. In addition some sentences are used in the passive construction as such:

*example of the control system used in practice*

*the actual value is taken from the preset value*

*the error value is processed to the controlling signal*

*the signal is not transmitted directly to the object*

*mechanical signals can be generated by cams, levers etc..*

Hence, the action itself is important rather than the agent which does the action. In further analysis we see that the language used is very precise and clear. For example:

*The algorithm of the adjuster is aimed at minimising the error value*

*The measuring sensor is responsible for measuring output signal*

*The summation node generates the error signal*

*In the feedback path, there is always a measuring device*

*The pace of the cylinder rotation affects the speed on the melody*

There is not any confusion in the text and the words are used in their exact meanings. The meaning is directly conveyed without the usage of any figures of speech. The writer has used examples to make the definitions appear in a more understandable way such as:

*Let us consider the following example: if a water container is the object and the control task is adjustment of the water temperature, the adjuster will generate the signal controlling the heater, which functions as the actuating device.*

Similar to exemplifying to inform the reader in a better way, it is seen that at the end of the text, the writer has grouped the output and controlling signals and defined each of them clearly.

#### 4.2.4 THE ANALYSIS OF THE SAMPLE TEXT II WITH RESPECT TO TERMINOLOGY

Analysing the original text in terms of terminology brings forth some words that are completely related with automation. The title of the text is Practical Application of Automation systems and the text gives us information about the

automation systems. One who is not familiar with the automation systems may have some difficulties in understanding some parts. The language used in the text tends to make the subject matter easier and unknown words are explained to the reader as seen in sentences such as:

*The input of the control system is the preset value.*

*The summation node is virtually a physical element realising the task of addition/subtraction of signals.*

*The measuring sensor is responsible for measuring output signal of the object, while the converter converts the signal to such a form which it enables it to be subtracted from the preset value in the summation node.*

The language of the text functions as dictionary definitions and it is seen that each sentence explains the previous one. Some of the terminology of the automation systems sorted out from the text is as follows:

*Control system, adjustment of the output variable, input, preset value, adjustments error signal, transmitted to, processed to, algorithm of the adjuster, error value, reservoir, rotational speed, presetter, feedback path, measuring device, signal converter, actuating device, physical values, mechanical signal, flow sensors, pressure sensors, pneumatic signals, bellow sensors, electric signals, analogue or digital, engine-driven, preset rotational speed, potentiometer*

## TRANSLATION OF SAMPLE TEXT II

### 3.4. Otomasyon Sistemlerinin Pratik Uygulamaları

Uygulamada kullanılan kontrol sistemlerinin en basit ve en tipik örneği nesnenin çıkış değişkenin ayarlanmasıdır. Kontrol sisteminin girdisi önceden ayarlanmış değerdir. Gerçek değer, ayarlayıcının girdisine iletilen ayarlanmış hata sinyalini bize veren önceden ayarlanmış değerden alınmaktadır. Burada hata değeri kontrol sinyaline dönüştürülmüş ve nesnenin girdisine iletilmiştir. Ayarlamacının algoritması, hata değerini en aza indirmeye yöneliktir.

Etrafımızda görevi bir değişkenin ayarlanması olan buna benzer birçok kontrol sistemi örneği ile karşılaşırız, örneğin:

- Rezervuardaki su seviyesinin ayarlanması (baraj gölündeki veya tuvaletlerdeki sifonlardaki gibi)
- Sıcaklık ayarlanması (demirler, buzdolapları),
- Dairesel dönüş hızı ayarlanması (blenderlar, matkaplar).

Bu örnekler üzerinde, kontrol sistemlerinin bazı karakteristik özelliklerini tanımlayabiliriz.

Önceden ayarlanmış değerlerin sinyali, **presetter** adı verilen kendi kaynağına sahip olmalıdır. Eklenik değerler devresi esas itibariyle sinyallerin toplama ve çıkartılma görevini yerine getiren fiziksel bir öğedir. Bundan dolayı devreye ulaşan sinyaller benzer tipte olmalı ve aynı fiziksel karaktere sahip olmalıdır. Geri besleme yolunda her zaman bir ölçüm cihazı vardır. Bu ölçüm cihazı genelde ölçüm sensörü ve sinyal çevirgeci olarak iki bölümden oluşur. Ölçüm sensörü nesnenin çıktı sinyalini ölçmekten sorumlu iken, çevirgeç sinyali eklenik değerler devresinde önceden ayarlanmış değerden çıkartılacak hale dönüştürür. Diğer taraftan, önceden hazırlanmış değer sinyalinin nesnenin kontrol edilmiş çıktı sinyali ile aynı fiziki karakterde olmasına gerek yoktur. Eklenik değerler devresi hata sinyalini çıktı aşamasında oluşturur ki buda ayarlayıcının girdi sinyalidir. Ayarlayıcı, kontrol görevini gerçekleştirir, fakat ayarlayıcıdan gelen sinyal genellikle nesneye direkt olarak iletilmez ama nesneye enerji sağlama görevini gerçekleştiren uyarı cihazına direkt iletilir. Aşağıdaki örneği ele alalım, eğer bir su deposu bizim nesnemiz ise ve kontrol görevi de su sıcaklığının ayarlanmasıysa ayarlayıcı, uyarı cihazı olarak görev yapan ısıtıcıyı kontrol eden sinyali üretecektir. Kontrol sistemi içerisinde iletilen sinyaller temsil ettikleri fiziksel değerlerle bağlantılıdır. Bu hem çıktı hem de kontrol sinyallerine uygulanmaktadır. Genel olarak dört gruba ayrılırlar:

- **Mekanik sinyaller** – kamlar manivelalar vb, tarafından oluşturulurlar. Laterna (bir müzik aleti) mekanik sinyalleri kullanan tipik bir kontrol sistemidir – döner silindir üzerinde düzenli olarak yerleştirilmiş akort mandalları tellere vuran küçük çekiç görevi görürler ve böylelikle müzik yapılmış olur. Döner silindirin hızı müziğin hızını etkilemektedir. Tuvaletlerde bulunan yüzer haldeki yıkama vanalı sifonlarda, su seviyesi hakkında bilgi veren sinyallerin de mekanik bir karakteri vardır. Su seviyesi yükseldiğinde yüzer yıkama vanası su sağlayan hortumu tamamen kapanana kadar sıkılmaktadır. Supap levyesinin uzunluğunu değiştirerek, rezervuarın içindeki su seviyesini ayarlayabilirsiniz.
- **Hidrolik Sinyaller** – hidrolik sinyaller genelde akış sensörleri (ölçüm redaktörü) veya basınç sensörü tarafından oluşturulurlar. Örnek olarak bir depodaki sıvı düzeyinin depo dibindeki basınca bağlı olarak ayarlanması verilebilir.
- **Hava basınçlı Sinyaller** – Hava basınçlı sinyaller muhtelif basınç sensörleri (diyafram veya körüklü sensor gibi) tarafından oluşturulurlar. Hava basınçlı sürücüler kullanan hava üretim ünitelerinin basınç ayarlayıcı cihazları gibi otomasyon cihazları tarafından yaygın olarak kullanılır.
- **Elektrikli Sinyaller** – Günümüzde en yaygın olarak kullanılan sinyallerdir. Ölçülmüş değeri elektrik sinyali formunda aldığımızdan dolayı fiziki değerlerin birçoğu için analog veya dijital bir ölçüm sensörü çevirgeci tasarlanmıştır. Örneğin, motorlu ev aletlerinin birçoğu için önceden ayarlanmış dönüş hızı potansiyometre tarafından ayarlanmıştır.

#### 4.2.5 THE ANALYSIS OF THE TRANSLATED TEXT II WITH RESPECT TO ITS TEXT TYPE

The text type of the original text was informative. When we compare the text types before and after translation, it is seen that the translation version of the text is also informative and sole aim is to convey information. The text is written in plain prose and the translator did not change the schematic order in which the information was presented. Like the writer of the original text, the translator used examples and groupings to inform the readers. Simple present tense is widely used to tell about the

general truths and processes. The language is not ornamented and figures of speech are not employed.

#### 4.2.6 THE ANALYSIS OF THE TRANSLATED TEXT II WITH RESPECT TO ITS SKOPOS

The text was written to inform the participants about automation. It was previously mentioned that some of the participants in the conference did not know English. Therefore the text was translated for them. Hence the aim of the translation is to convey information to the target audiences.

#### 4.2.7 ANALYSIS OF THE TRANSLATED TEXT II WITH RESPECT TO ITS FORM

Translator followed the same pattern that is established by the source text writer. The text is a part of an article and it is in an academic book format. The translator like the author widely used the present tense and passive structures in the target text such as:

*Uygulamada kullanılan kontrol sistemleri*

*Ayarlacının algoritması, hata değerini en aza indirmeye yöneliktir.*

*Gerçek değer, ayarlayıcının girdisine iletilen ayarlanmış hta sinyalini bize veren önceden ayarlanmış değerden alınmaktadır.*

Moreover it is written in plain prose and some processes are explained with giving examples and making groupings. Unfortunately in the first paragraph, the translator forgot to translate the sentence (*The control task is eliciting the signal equal to the preset value*) from the original text into Turkish.

#### 4.2.8 THE ANALYSIS OF THE TRANSLATED TEXT II WITH RESPECT TO ITS TERMINOLOGY

Before translating a text like that, the translator should do some research to become familiar with the basic terms in automation. What is more, he should be able to understand the processes explained in the text to find proper technical equivalences to the words and phrases in the text. In this analysis the translation of terminology is classified according to the functional translation method used since this sample text is less professional and a variety of methods have been employed.

##### **Borrowings**

Control system: kontrol sistemi

Algorithm: algoritma

Reservoir: rezervuar

Sensor: sensör

Signal: sinyal

Physical: fiziksel

Mechanical signal: mekanik sinyaller

Hydraulic signals: hidrolik sinyaller

Diaphragm: diyafram

Electric signals: elektrikli sinyaller

Analogue or digital: analog veya dijital

Potentiometer: potansiyometre

##### **Word that is not translated and kept as it is**

Presetter: presetter

### **Established equivalences in the target language**

Adjustment of the output variable: çıkış değişkeninin ayarlanması

Input: girdi

Adjustments error signal: ayarlanmış hata sinyali

Transmitted to: iletilen

Processed to: dönüştürülmek

Algorithm of the adjuster: ayarlamacının algoritması

Error value: hata değeri

Rotational speed: dairesel dönüş hızı

Addition/subtraction of signals: sinyallerin toplama ve çıkartılması

Feedback path: geri besleme yolu

Actuating device: uyarı cihazı

### **Description:**

Pin: akort mandalları

Floating flush valve: yüzer haldeki yıkama vanalı sifonlar

Pneumatic signals: hava basınçlı sinyaller

Summation node: eklenik değerler devresi

### **Particularization:**

engine-driven, motorlu

### **4.2.9.DISCUSSION**

Sample Text II's translation with its informative text type and its skopos which aims to function as a means of providing information about the subject matter to the lay people in the seminar, seems to be acceptable since a functionalist approach has been adopted by the translator.

The technical terminology has also been transferred into Turkish with their functional equivalences. Borrowing, description and particularization methods have been used by the translator along with establishing equivalences in the target language. In addition the schematic order of the source text is preserved and a form which is very similar to the source text's is established. Unfortunately, a sentence was not translated by the translator which is possibly due to lack of concentration and some words were not used in their technical meanings which gives the idea that necessary research about the subject matter was not done.

To conclude, a functionalist approach seen in the translation of Sample Text II, has rendered the text into Turkish as a functional and acceptable product.

### 4.3.SAMPLE TEXT III





# using this manual


This user manual has been specially designed to guide you through the functions and features of your mobile phone. To get started quickly, refer to "introducing your mobile phone," "assembling and preparing your mobile phone," and "using basic functions."

ii

#### Instructional icons

Before you start, familiarise yourself with the icons you will see in this manual:

-  **Warning**—situations that could cause injury to yourself or others
-  **Caution**—situations that could cause damage to your phone or other equipment
-  **Note**—notes, usage tips, or additional information
-  **Refer to**—pages with related information; for example: ► p. 12 (represents "see page 12")

- **Followed by**—the order of options or menus you must select to perform a step; for example: In Menu mode, touch **Messages** → **Create message** (represents **Messages**, followed by **Create message**)
- [ ] **Square brackets**—phone keys; for example: [  ] (represents the Power/Menu exit key)

# safety and usage information

Comply with the following precautions to avoid dangerous or illegal situations and ensure peak performance of your mobile phone.



## WARNING Safety warnings

### Keep your phone away from small children and pets

Keep your phone and all accessories out of the reach of small children or animals. Small parts may cause choking or serious injury if swallowed.

### Protect your hearing



Listening to a headset at high volumes can damage your hearing. Use only the minimum volume setting necessary to hear your conversation or music.

1

### Install mobile phones and equipment with caution

Ensure that any mobile phones or related equipment installed in your vehicle are securely mounted. Avoid placing your phone and accessories near or in an air bag deployment area. Improperly installed wireless equipment can cause serious injury when air bags inflate rapidly.

### Handle and dispose of batteries and chargers with care

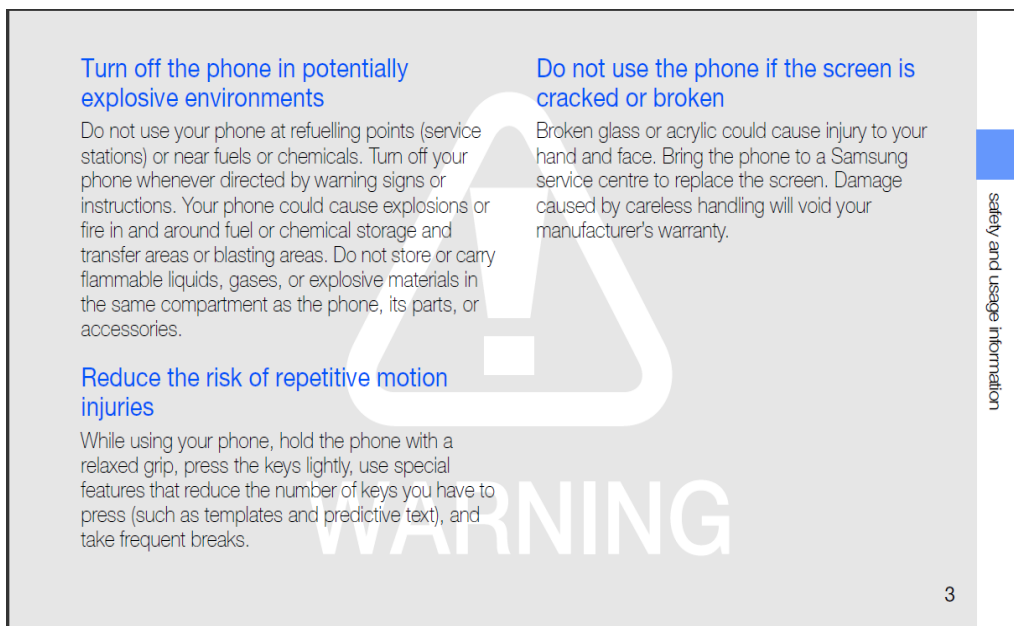
- Use only Samsung-approved batteries and chargers specifically designed for your phone. Incompatible batteries and chargers can cause serious injuries or damage to your phone.
- Never dispose of batteries or phones in a fire. Follow all local regulations when disposing of used batteries or phones.

- Never place batteries or phones on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode when overheated.
- Never crush or puncture the battery. Avoid exposing the battery to high external pressure, which can lead to an internal short circuit and overheating.

### Avoid interference with pacemakers

Maintain a minimum of 15 cm (6 inches) between mobile phones and pacemakers to avoid potential interference, as recommended by manufacturers and the independent research group, Wireless Technology Research. If you have any reason to suspect that your phone is interfering with a pacemaker or other medical device, turn off the phone immediately and contact the manufacturer of the pacemaker or medical device for guidance.

2



**Turn off the phone in potentially explosive environments**

Do not use your phone at refuelling points (service stations) or near fuels or chemicals. Turn off your phone whenever directed by warning signs or instructions. Your phone could cause explosions or fire in and around fuel or chemical storage and transfer areas or blasting areas. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the phone, its parts, or accessories.

**Reduce the risk of repetitive motion injuries**

While using your phone, hold the phone with a relaxed grip, press the keys lightly, use special features that reduce the number of keys you have to press (such as templates and predictive text), and take frequent breaks.

**Do not use the phone if the screen is cracked or broken**

Broken glass or acrylic could cause injury to your hand and face. Bring the phone to a Samsung service centre to replace the screen. Damage caused by careless handling will void your manufacturer's warranty.

safety and usage information

3

#### 4.3.1 THE ANALYSIS OF THE SAMPLE TEXT III WITH RESPECT TO ITS TEXT TYPE

The text to be analysed in terms of text type, skopos and terminology is a part of a mobile phone user manual that belongs to Samsung company. As it is known, user manuals function as a roadmap for the users. They are designed to offer solutions to the problems that may arise after the consumers purchase the product. Since the customers are not technical experts, the language in the user manuals is very clear and precise. Hence, the instructions given are intended to be understood by the lay people, that is by the customers. In addition, as the companies can not estimate who their customers will be, to what age group they will belong to and what their social and cultural backgrounds are, these manuals are designed for the average readers. Therefore, in order to identify the skopos of the translation it would be worthwhile first, to identify the function of the source text, that is the user manuals in general:

1. The language of the manuals should be clear and precise and there should not be any ambiguities in these texts.

2. These manuals should offer some solutions to the average readers when they are confronted with a problem after they purchase the product.

3. They should contain all the necessary information for the smooth operation of the product.

Hence, we can say that user manuals have an informative style in that they tell the reader as clearly and simply as possible how to use the product and present solutions to the problems which may arise during its operation and they instruct the readers about what they should do when confronted with problems. Under the light of these descriptions about the user manual, it can be said that the text type used is informative. Although, the writer of the document wants the reader to act in a certain way in order to get full performance from the product and to prevent some possible injuries, it is not operative as it does not appeal to the emotions of the readers. The language used is very clear and what to do and what not to do is described step by step. Even an ordinary reader with an average comprehension level can understand the text.

#### 4.3.2 THE ANALYSIS OF THE SAMPLE TEXT III WITH RESPECT TO ITS SKOPOS

User manuals are written for some specific purposes. Instructing the users about some potential problems that may occur while using the mobile phone and providing the users to be able to use the product more efficiently are among these purposes. Judging this user manual in terms of these purposes it is seen that the manual is successful in achieving these purposes. Users are thought to be the customers who buy the product. As the manufacturer can not guess who their potential customers will be, generally the average reader is taken into consideration and therefore the language used for the sake of the skopos is very simple and precise.

#### 4.3.3 THE ANALYSIS OF THE SAMPLE TEXT III WITH RESPECT TO ITS FORM

The writer of the original document aims to make the reader familiar with how to use this manual and with some instructional icons at the beginning of the text. The function of the user manual is described by the writer in detail and what the reader should do to get started quickly is told. What attracts our attention is the fact that, information given under the title of “Using This Manual” is very clear and understandable. Furthermore, under the title “Instructional Icons” icons used throughout the manual are introduced to the reader. The usage of modal *could* when describing the icons of “Warning” and “Caution” is to indicate that these situations will not certainly happen but they can possibly happen. The language used in describing what the icons stand for is very short and clear. It is seen that all the unnecessary words are omitted and a universal definition is achieved. What we mean is that every reader will gather the same information when they read these explanations. In describing the icons which means *Refer to*, *Followed by* and *Square Brackets*, the writer of the document is giving an example to make the meaning of the icons more clear therefore a possible confusion is prevented. The definition of the icon *Followed by* is done with using the modal *must* which instructs the reader about what he has to do to perform a step.

In pages 1, 2 and 3, safety and usage information is briefly put forward. At first the user is warned to comply with this information. The structure of the sentences both in the brief description under safety and usage information and in the sub-titles under safety warnings is imperative. The usage of imperative sentences in English is done to instruct readers about the steps to be followed. At this point we have to mention that complying with these warnings is utmost importance to prevent any injuries and to get full performance from the product. Sentences are very clear and they tell to the user what is possible to happen in case the warnings are not taken into consideration.

The layout of the pages in the manual is also designed in a way which attracts the readers attention. In pages ii and iii, the page is divided into two and different colours are used as backgrounds in the original text. The left handside of the page is white and the right one is grey. In pages with grey, titles and important lines are written in blue and other explanations are written in black. Dividing the page into two increased the usability of the manual and allowed the writer of the document to include as much information as he could on one page. Although the pages are loaded with information, it is impossible to find any confusing information. Thus, it can be said that the information is presented very clearly and the readers are instructed directly. On pages 1,2 and 3 the same layout is used and lefthand side of the pages are dedicated to headlines in which larger fonts are used. At the edge of the pages, information is given about in which section of the manual the reader is and this serves as an index. Furthermore, in page 3, Warning message is located at the background of the page which emphasizes the importance of the subject.

#### 4.3.4 THE ANALYSIS OF THE SAMPLE TEXT III WITH RESPECT TO ITS TERMINOLOGY

The section of the manual we are analysing is mainly about safety and usage information. Thus some words like *Warning*, *Caution* and *Note* are abundantly used where the customers should be very careful. On the other hand, words used in the manual are in harmony with the jargon used in the mobile phone user manual. That is to say, they are mainly about the product and its features. Therefore the terminology of this manual will be handled under two categories. The first one will predominantly deal with the words where utmost precaution is necessary and the second one will be generally about the mobile phones.

### **Words and phrases about safety**

Words and phrases below are chosen from the original text and they are about safety and about the context in which measures should be taken. Potential dangerous situations are described and what should the users do in terms of precaution is presented. Hence, the technical terminology in this section could be grouped as such:

Safety and usage information, precaution, peak performance, avoid dangerous situations, choking warning, caution, note, securely mounted, deployment area, improperly installed, handle and dispose of batteries and chargers with care, internal short circuit, overheating, interference with pacemakers, potentially explosive environments, refuelling points, flammable liquids, broken glass or acrylic, manufacturer's warranty

### **Words and phrases about mobile phones**

Words and phrases below are about the mobile phones and the mobile phone users around the world who are estimated to be familiar with these words and phrases. Hence, the grouping is the following:

Assembling your mobile phone, options, menu, create message, messages, Power/Menu, exit key, headset, minimum volume setting, turn off the phone immediately, Samsung-approved batteries and chargers, never crush or puncture the battery, wireless device, keys, special features, templates, predictive texts.

## TRANSLATION OF SAMPLE TEXT III





# Bu kılavuzu kullanma

Bu kullanım kılavuzu cep telefonunuzun işlevleri ve özellikleri konusunda size yol göstermek için özel olarak hazırlanmıştır. Hemen başlamak için "Cep telefonunuzu tanıyın," "Cep telefonunuzu birleştirme ve hazırlama," ve "Temel fonksiyonları kullanma" konularına bakın.

ii

## Talimat simgeleri

Başlamadan önce, bu kılavuzda göreceğiniz simgeleri tanıyın:

-  **Uyarı**—sizin veya başkalarının yaralanmasına neden olabilecek durumlar
-  **Dikkat**—telefonunuzun veya diğer ekipmanın zarar görmesine neden olabilecek durumlar
-  **Not**—notlar, kullanım ipuçları veya ek bilgiler
-  **Bakınız**—ilgili bilgi içeren sayfalar; örneğin: u sf.12 ("bkz. 12. sayfa" anlamına gelir)

→ **İşlem sırası**—bir adımı gerçekleştirmek için seçenekler veya menülerde izlemeniz gereken sıra; örneğin: Menü modunda **Mesajlar** → **Mesaj oluştur** tuşuna basın (**Mesajlar**'ı ardından **Mesaj oluştur** tuşuna basın anlamına gelir)

[ ] **Köşeli ayraçlar**—telefon tuşları; örneğin: [ ] (Güç/Menüden çıkış tuşunu gösterir)

## Telif hakkı bilgisi

Bu aygıtı içeren tüm teknolojilerin ve ürünlerin mülkiyeti ilgili sahiplerine aittir:

- Bluetooth®, dünya genelinde Bluetooth SIG, Inc. firmasının tescilli ticari markasıdır— Bluetooth QD ID: B015743.
- Java™ Sun Microsystems, Inc. firmasının tescilli ticari markasıdır.
- Windows Media Player®, Microsoft Corporation'ın tescilli ticari markasıdır.

# CE 0168

iii

Bu kılavuzu kullanma

# Güvenlik ve kullanım bilgileri

Tehlikeli veya yasal olmayan durumlardan kaçınmak ve cep telefonunuzu en yüksek performansta kullanmak için aşağıdaki uyarılara uyun.

2



## Güvenlik uyarıları

### Telefonu küçük çocuklardan ve evcil hayvanlardan uzak tutun

Telefonunuzu ve tüm aksesuarlarını küçük çocukların veya hayvanların erişemeyeceği bir yerde tutun. Küçük parçalar yutulursa boğulmaya veya önemli yaralanmalara neden olabilir.

### İşitme yeteneğinizi koruyun



Kulaklığın sesini çok açarak kullanmak işitme kaybına neden olabilir. Sesi, konuşmalarınızı veya dinlediğiniz müziği duymaya yetecek kadar açın.

### Cep telefonlarını ve donanımları dikkatli bir şekilde takın

Aracınıza taktığınız tüm cep telefonlarının veya ilgili donanımın güvenli bir şekilde monte edildiğinden emin olun.

Telefonunuzu ve aksesuarları hava yastığının bulunduğu yere veya yakınına koymayın. Doğru takılmayan kablosuz donanım, hava yastığı şiştiğinde ciddi yaralanmalara neden olabilir.

### Bataryaları ve şarj cihazlarını kullanırken ve atarken dikkatli olun

- Yalnızca telefonunuz için özel olarak tasarlanmış ve Samsung tarafından onaylanmış bataryaları ve şarj cihazlarını kullanın. Uyumsuz bataryalar veya şarj cihazları ciddi yaralanmalara neden olabilir veya cihazınıza zarar verebilir.
- Bataryaları asla ateşe atmayın. Kullanılan bataryaları atarken tüm yerel düzenlemelere uyun.
- Bataryaları veya telefonları asla mikrodalga fırın, soba veya radyatör gibi ısıtıcı cihazlara koymayın. Bataryalar aşırı ısındığında patlayabilir.
- Bataryayı asla ezmeyin veya üzerinde delik açmayın. Bataryayı aşırı basınç altında bırakmayın, aksi takdirde kısa devre yapmasına ve aşırı ısınmasına neden olur.

### Kalp pillerini etkilememesine dikkat edin

Üretici firmaların ve bağımsız bir araştırma grubu olan Wireless Technology Research'in önerilerine göre, kalp pillerinin etkilenme olasılığını engellemek için cep telefonları ile kalp pilleri arasında en az 15 cm (6 inç) mesafe bırakın. Telefonunuzun bir kalp pilini veya diğer tıbbi cihazları etkilediği ile ilgili şüphelenirseniz, telefonu derhal kapatın ve yardım almak için kalp pilinin veya tıbbi cihazın üreticisine başvurun.

### Patlama olasılığı olan ortamlarda telefonu kapatın

Telefonu yakıt ikmal noktalarında (benzin istasyonları) veya yakıt ya da kimyasal maddelerin yakınında kullanmayın. Uyarı işaretleri veya talimatlarla belirtilen yerlerde telefonunuzu kapatın. Telefonunuz, yakıt veya kimyasal malzemelerin depolandığı yerlerde ve taşındığı araçlarda ya da patlayıcı malzemelerin olduğu yerlerde veya yakın çevresinde patlamaya neden olabilir. Yanıcı sıvı ve gazları veya patlayıcı maddeleri, telefonunuzla ve parçaları veya aksesuarları ile aynı yerde saklamayın ve taşımayın.

3

Güvenlik ve kullanım bilgileri

**Sürekli aynı hareketleri yapmaktan kaynaklanan rahatsızlıklara yakalanma riskini azaltın**

Telefonunuzu kullanırken, telefonu rahat bir şekilde tutun, tuşlarına hafifçe basın, basmanız gereken tuş sayısını azaltan özelliklerden yararlanın (örneğin şablonlar ve tahmini metin gibi) ve sık sık ara verin.

**Ekran kırık veya çatlaksa telefonu kullanmayın**

Kırık cam veya akrilik elinizi veya yüzünüzü yaralayabilir. Ekranın değiştirilmesi için telefonu Samsung servis merkezine götürün. Özensiz kullanımın neden olduğu hasar üreticinin garantisini geçersiz kılar.

4

#### 4.3.5 THE ANALYSIS OF THE TRANSLATED TEXT III WITH RESPECT TO ITS TEXT TYPE

In analysing the source text, some characteristics qualities of user manuals were mentioned. It can be said that the translated form of the manual is equipped with the same characteristic qualities. That is to say, the text-type of the translation of this user manual is also informative. The text is translated in plain prose and the information is presented clearly to the target audience. Furthermore the language is so simple that ambiguities and confusions are avoided by the translator. Similar to the source text, the target text is functioning as a roadmap for the users and it can be consulted whenever the user encounters with a problem. The language clearly tells what to do and what not to do while using the mobile phone.

#### 4.3.6 THE ANALYSIS OF THE TRANSLATED TEXT III WITH RESPECT TO ITS SKOPOS

In a translation, the identification of the skopos of the translation and its function will act as guides for the translator. In this respect, the analysis of the translation in our study will start with the identification of the skopos of the translations and their intended functions. Another important factor in defining the skopos of the translation is the role of the commissioner. The commissioner in this case is the distributing company in Turkey which has very specific principles about what to expect from the translation and this quality has definitely manipulated the translator in finding a functional method and skopos for his translation. Why is this user manual translated and who are considered to be the potential customers? The answers to these questions will provide us to make the skopos clearer. Since Samsung is an international brand which sells its products throughout the world, it is necessary to translate the user manual for the customers in Turkey. Rather than a commercial one, the skopos of this translation is to inform and instruct the customers. Information is conveyed to get peak performance from the mobile phone and the customers are instructed about what they should do and what they should not do in order to avoid any accidental situations.

#### 4.3.7 ANALYSIS OF THE TRANSLATED TEXT III WITH RESPECT TO ITS FORM

On pages ii and iii, the meanings of the icons are introduced to the reader. The words like *Warning* and *Caution* under the icons are not translated to the target language. Perhaps the translator is relying on the visual symbols and thinks it unnecessary to translate these words. In definition of these icons some modal verbs like *could* and *must* are used. The usage of the modal *could* expresses possibility and the usage of the modal *must* expresses necessity. Due to the differences between language structures and grammar, the meanings of these modal verbs are added with a suffix to the main verb as in the following examples:

*Could cause:* neden olabilecek

*Must select:* seçmeniz gereken

The language used in order to define what these icons stand for is short and clear and the sentences tell the reader what to do and not to do with their mobile phones. To define the icons *Followed by* and *Refer to* examples were given by the source text writer. Same examples are also seen in the target text and they make the meanings of these symbols more clear as could be seen in the examples:

*İlgili bilgi içeren sayfalar: örneğin: u sf.12 (“bkz. 12. sayfa” anlamına gelir)*

*Örneğin: Menu modunda Mesajlar→Mesaj oluştur tuşuna basın anlamına gelir.*

In the safety and usage information section, it is seen that the imperative structures are translated into the target language with an equivalent modal ‘emir kipi’ in third person plural as such:

*Telefonu küçük çocuklardan ve evcil hayvanlardan uzak tutun.*

*İşitme yeteneğinizi koruyun.*

Conveying information is again given the utmost importance. Passive structures in the source text are preserved in the target text and used by the translator as seen in the following examples:

*Doğru takılmayan kablosuz donanım, hava yastığı şiştiğinde ciddi yaralanmalara neden olabilir.*

*Uyarı işaretleri veya talimatlarla belirtilen yerlerde telefonunuzu kapatın.*

The layout of the target text is completely similar to the source text. The pages are divided into two and the same background colors are used along with the same font sizes and types. Because of the difference between languages, the

information presented in three pages is presented in three and half sentences in the target language. It is seen that at the background of the page under the text is the icon and word the Warning below is not translated to the target language. Here the communicative value of the symbol is considered to be enough in conveying the necessary information.

#### 4.3.8 THE ANALYSIS OF THE TRANSLATED TEXT III WITH RESPECT TO ITS TERMINOLOGY

A terminology analysis of the target text reveals that the translator, in order to achieve functional equivalence and to remain within the boundaries of the skopos of the translation act, chooses to comply with the general usages that one can come across with in the similar texts produced in Turkish, be them translation or original. The translation method hence, moves from one to another such as: “güvenlik ve kullanım bilgileri” is a direct and word-for-word translation which is the common and functional equivalence for such texts in Turkish, whereas on the other, “güvenli bir şekilde monte edildiğinden” phrase contains the verb “monte edilmek” which is borrowed from the original sentence since functionally “monte edilmek” is more widely used in these situations than a word-for-word translation such as “yerleştirmek, koymak” or any other translation method which could be applied to convey the same message. In this case, one can conclude that in the transference of technical terminology, achieving the skopos of the translation has directed the translator towards making choices for functional equivalences in Turkish through employing a mixture of translation methods as such:

#### **Borrowings:**

Note: Not

Performance: Performans

Acrylic: Akrilik

Menu: Menü

Messages: Mesajlar

Battery: Batarya

### **Established equivalances in the target language**

Safety and usage information: Güvenlik ve kullanım bilgileri

Precaution: Uyarı

Avoid dangerous situations: Tehlikeli durumlardan kaçınmak

Choking: Boğulma

Warning: Uyarı

Caution: Dikkat

Improperly installed wireless equipment: Doğru takılmayan kablosuz donanım

Overheating: Aşırı ısınma

Flammable liquids: Yanıcı sıvı

Manufacturer's warranty: Üreticinin garantisi

Power: Güç

Options: Seçenekler

Exit key: Çıkış tuşu

Wireless equipment: Kablosuz donanım

Keys: Tuşlar

Templates: Şablonlar

Headset: Kulaklık

### **Descriptions:**

Air bag deployment area: Hava yastığının bulunduğu yer

Potentially explosive environments: Patlama olasılığı olan ortamlar

Refuelling points: Yakıt ikmal noktaları

Avoid interference with pacemakers: Kalp pillerini etkilememesine dikkat edin

Minimum volume setting: Sesi duymaya yetecek kadar açın

Securely mounted: Güvenli bir şekilde monte edildiğinden

Internal short circuit: Kısa devre

Assembling your mobile phone: Cep telefonunuzu birleştirme

Turn off the phone immediately: Telefonunuzu derhal kapatın

Samsung-approved batteries and chargers: Samsung tarafından onaylanmış bataryalar ve şarj cihazları

Never crush or puncture the battery: Bataryayı asla ezmeyin ve üzerinde delik açmayın

Special features: Özellikler

Predictive texts: Tahmini metin

#### 4.3.9. DISCUSSION

Sample Text III's translation with its informative text type and its skopos which aims to function as a user manual, telling the customers what to do and what not to do with their mobile phones both in general and in some potentially dangerous environments, seems to be acceptable since a functionalist approach has been adopted by the translator.

The technical terminology has been transferred into target language with their functional equivalences with the usages of borrowing and description methods along with establishing equivalences. A functional form for the Turkish readers/customers has also been created and the layout of the pages has been kept similar to the source ones together with similar font sizes, types and colors.

Hence, a functionalist approach seen in the translation of Sample Text III, has rendered the text into Turkish as a functional and acceptable product.

## CONCLUSION

Intercultural technical communication process and network nowadays strive to achieve a heightened quality and efficiency by mean of improving translational skills in this field. Hence, translation of technical texts, as the subject of this study, involves not only languages and texts, but a large array of suppliers, customers, consultants, applicants, users and many more. The image of translation within the center of this network has to be strong and consistent, satisfying the demands of all the components.

One consequence of shorter product cycles, globalisation and increased specialisation is the need for quick access to up-to-date knowledge. Information now becomes ‘the raw material’ (Risku 2004: 89) and its use can be organized, detailed and even planned. In that sense, text type design is very important in terms of supplying information as a raw material which is to be moulded in the text. The information-loaded text should be organized in such a way that its function should be achieved as clearly as rapidly and as economically as possible within the boundaries of intercultural technical communication.

These above considerations led translation scholars to adopt new perspectives in order to deal with the growing needs of technical translation as a separate branch. In this context, it may well be stated that purely equivalence based or source oriented translation theories did not suffice the requirements of technical translation. Hence, the flexibility of the skopos theory and the functionalist approaches regard that any pragmatic element can determine the function of translation such as the commissioner, the receptor, the item itself etc. since functionalist approaches do not evolve around a definite and absolute equivalence.

It is stated by Nord that, the skopos of a particular translation task may require a ‘free’ or ‘faithful’ translation, or anything between these two extremes, depending on the purpose for which the translation is needed (1997: 29). Actually,

what Nord underlines is the fact that the receiver and the aim of the translation task are the main factors which influence the function of the translation. Functionalist approaches, providing comprehensive and adjustable methods for the translator of technical texts in that sense seem to be recommendable and usable as put forward in the Introduction of this thesis.

Within this context, the starting point of this thesis which was the assumption that the translation of technical texts is governed by the necessity of achieving acceptability due to their informative text-type nature has been confirmed in the explanations provided especially in the Chapter II, and a functionalist approach to overcome the challenges of technical translation and to meet its growing requirements has been proposed in Chapter III. Chapter IV has been devoted to study and analyse the applicability of the proposed functionalist approaches to technical translation by means of making use of several functional translation methods on the three sample texts and their translations.

As a result of our descriptive and comparative analysis of the sample texts, the following conclusions may be drawn within the boundaries of this thesis:

- 1) Identifying the skopos of the source text and that of the target text which may not overlap everytime should constitute an initial step for the translator on the way to create an acceptable text in the target culture/audience;
- 2) Text-type qualities of the source text determine the text-type quality of the target text as well; hence, the qualities peculiar to a technical text should be passed on to the target text for the purpose of the translation;
- 3) A functionalist approach which provides several functional translation methods as identified Molina and Hurtado Albir (2002: 498-512) proves acceptable, clear, precise and the most economic translations of technical texts after studying the translations of Sample texts I, II, III and in the discussions provided below each analysis in Chapter IV.

4)The translations of all the sample texts in our analysis section were functionally acceptable since the translators applied the strategies as identified in Chapter III. These strategies were mainly applied in the terminological level with an aim to establish functional equivalences. Borrowing, Establishing Equivalences in the Target Language, Description and Particularization were the strategies applied by the translators.

Consequently, although not a holistic study, this thesis puts forward that technical translation is not just juxtapositioning of two languages or a mere linguistic transfer, but it is a very comprehensive process which needs the employment of the recent theoretical assumptions in translation studies such as the skopos theory and functionalist approaches along with a thorough examination of texts, terminology, background information and global conditions that create the demand for technical translation.

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Samsung User Manual

[http://downloadcenter.samsung.com/content/UM/201003/20100309123815562/GT-S3653W\\_UM\\_East\\_Asia\\_English\\_091207.pdf](http://downloadcenter.samsung.com/content/UM/201003/20100309123815562/GT-S3653W_UM_East_Asia_English_091207.pdf)

Sample Text 1

[http://www.mercedes-benz.com.tr/content/turkey/mpc/mpc\\_turkey\\_website/tr/home\\_mpc/passengercars/home/passenger\\_cars\\_world/innovation/recent\\_development/dynamic.html](http://www.mercedes-benz.com.tr/content/turkey/mpc/mpc_turkey_website/tr/home_mpc/passengercars/home/passenger_cars_world/innovation/recent_development/dynamic.html)

## ABSTRACT

[Tekir, Ümit] [Strategies to Overcome Challenges in Technical Translation] [M.A. Thesis]

[Ankara, 2010].

With globalization the translation of technical texts gained an importance. Translation of technical texts require deep knowledge about the subject matter since both in the source and target text a specialized language is used. Specialized language necessitates a competency in terminology and a number of strategies can be used by the translators to overcome the challenges that may arise during the process of translation.

The purpose of this thesis is to put forth the strategies that can be employed in technical translation to overcome the challenges with providing an outline both from the history of technical translation and from the theories related to translation. Special importance is given to the characteristics of technical texts, to the language used in these texts and to their text types. Functionalist Approaches are considered to be important in technical translation for achieving a functional result and three sample texts with their translations are analyzed within the scope of functionalist approaches. Strategies like borrowing, particularization, description and establishing equivalences in the target language are identified in the translations of the sample texts.

Key words:

1. Technical Translation
2. Text Types
3. Functionalist Approaches
4. Technical Language

## ÖZET

[Tekir, Ümit] [Strategies to Overcome Challenges in Technical Translation]  
[Yüksek Lisans Tezi] [Ankara, 2010].

Küreselleşme ile birlikte, teknik metin çevirileri daha fazla önem kazanmıştır. Teknik metinlerin çevirileri hem kaynak hem de hedef metinde kullanılan özellikli dilden dolayı konu alanında detaylı bilgi sahibi olmayı gerektirmektedir. Özellikli dil terminoloji anlamında yeterli olmayı zorunlu kılar ve çeviri süreci esnasında karşılaşılabilecek güçlükleri aşabilmek için çevirmenler tarafından bir dizi stratejiler kullanılabilir.

Bu tezin amacı teknik metin çevirilerinde karşılaşılan güçlükleri aşmak için kullanılan stratejileri hem teknik çevirinin tarihini hem de çeviri kuramlarını özetleyerek sunmaktır. Teknik metinlerin özelliklerine, teknik metinlerde kullanılan dile ve bu metinlerin metin türlerine bu çalışmada özellikle önem verilmiştir. İşlevsel bir sonuç elde edebilmek için İşlevsel Yaklaşımların önemli olduğu düşünülmüştür ve bu yaklaşımlar kapsamında üç adet örnek metin ve çevirileri incelenmiştir. Örnek metinlerin çevirilerinde ödünç alma, özelleştirme, tanımlama ve hedef dilde eşdeğer ifadeleri bulma gibi stratejilerin kullanıldığı belirlenmiştir.

### Anahtar Sözcükler

1. Teknik Çeviri
2. Metin Türleri
3. İşlevsel Yaklaşımlar
4. Teknik Dil

