ADAPTATION OF EDUCATIONAL FILMS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of the Ohio State University

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1959

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ACKNOWLEDGMENTS

I wish to express my sincere appreciation and gratitude to my adviser Dr. Edgar Dale. Without his guidance and inspiration this study would have been impossible.

Also, I wish to thank Dr. Norman Woelfel, Dr. I. Keith Tyler, and Dr. Robert Wagner for reading the rough draft and for their valuable suggestions.
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CHAPTER I
INTRODUCTION

This study aims to develop a practical theory for adapting educational films from one language to another. Adaptation of a film is the process of making a film produced in language A intelligible to audiences of language B. The term "translation" is not accurate since there is more than translating the verbal component of a film in language A to make it intelligible to audiences of language B. This idea is illustrated by the following incident:

More than one worker in fundamental education in underdeveloped countries has reported that films showing the deadly malaria mosquitoes have been ineffective with natives. The close-ups on the screen made the mosquitoes of huge size. Natives viewing such magnifications have said: "We need not worry about our mosquitoes, they are so tiny. Yours in America are indeed very large and possibly very dangerous."¹

In this incident the verbal sound track was in the native's tongue. Misunderstanding occurred, however, from misinterpreting the picture.

The writer maintains that the motion picture is a unique language. It differs from the languages of its components: verbal, picture, music, and sound effects. This unique language -- the

motion picture language -- needs different treatments in "translation" from those of the verbal language. The process of translating this peculiar language is called adaptation.

The second term which we have to define is "educational films." Audio-visual educators have classified films under different categories, and no one classification is recognized by all the field's leaders. However, it is absolutely necessary to define exactly what the writer means by "educational films" for these two reasons: (a) the selection of the films for the experimental part of this study will be made according to this definition, and (b) it is assumed that different types of films demand different treatments in adaptation. Accordingly, a theory for adapting a certain type of films is not necessarily applicable to other types.

In its infancy the motion picture was recognized as an entertainment medium. Till now, it is "principally associated in the public mind with the theater, . . ." However, thoughtful people have realized the motion picture's potentiality as an educational medium. Hoban reports that Edison, who is credited with the invention of the medium, predicted its contribution to education.

Today, motion pictures have an established role in instruction.

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^3^Ibid., p. 5.
On the basis of film research studies, Hoban and van Ormer have listed five major values of motion pictures in teaching:

1. People learn from films. They learn factual knowledge, concepts, motor skills, attitudes, and opinions. Probably, films are useful in achieving other educational objectives, such as appreciations and creative imagination, but there is little evidence available on these outcomes.

2. When effective and appropriate films are properly used, people learn more in less time and are better able to retain what they have learned.

3. Instructional films may stimulate other learning activities (such as discussions, voluntary reading, investigation, art work, etc.)

4. Certain films may facilitate thinking and problem solving.

5. Appropriate films are equivalent to at least an average teacher, and sometimes even to an excellent instructor insofar as the instructor's function is communicating the facts or demonstrating the procedures presented in the film.\(^4\)

Therefore, a medium ordinarily considered as an entertaining device had a powerful role in education. Films, therefore, have a twofold function: to entertain, and to educate. Is it possible to draw a meaningful line between what we might call entertainment films and educational films?

The first criterion that may come to the mind is that entertainment films are devised to entertain, and educational films are

intended to teach. Classifying films in this way is both inaccurate and fruitless. This is because films devised to entertain have a pronounced educative value. Albright indicated the educative function of entertainment motion picture when he said:

The introduction of sound to film in late 20's opened up new vistas of entertainment. This made it possible for the vast audience not only to see pantomime but along with it to hear the words of well-written stories and even of literary masterpieces . . .

Although these films were produced largely, if not solely, for their high entertainment appeal, they carry with them significant overtones of education. Millions of people around the world who had thought of some of our best literature as being dull and stodgy and condemned it with the generalization of being 'high-brow', began to get acquainted with characters and scenes and quotations previously familiar only to the cultured.5

Incidents are recorded where theatrical films have motivated people to read books from which the pictures have been adapted. For example, Albright reported that, "As far back as David Copperfield, libraries all over the country reported the purchase of additional copies to meet the demands for this Dicken's book which had rested on their shelves unread for years."6

Also, Payne Fund studies confirmed the fact that although entertainment films seldom have an educational purpose, yet they


6 Ibid., p. 409.
have a pronounced educational effect.\textsuperscript{7} In these studies, Holaday and Stodard indicated that "the amount of information gained from motion pictures by children of all ages . . . is 'tremendously high'.\textsuperscript{8} Peterson and Thurstone concluded that "motion pictures have definite, lasting effects on the social attitudes of children and that a number of pictures pertaining to the same issue may have a cumulative effect on attitude."\textsuperscript{9}

Someone might argue that learning from entertainment films is incidental, whereas learning from educational films is deliberate. Although this is true, nevertheless, it is not a sufficient criterion to distinguish between educational and entertainment films for these reasons: incidental learning occurs in educational films, and entertainment films can be used deliberately to teach (e.g., using Charlie Chaplin's films to study techniques of comedy, or Chaplin's philosophy in film-making, etc.).

Then, what is the distinguishing criterion? Dean McClusky believes that the distinction is rather one of use than of something different in the nature of the films themselves. He explained this idea as follows:

\textsuperscript{7}Dale. \textit{op. cit.}, p. 232.

\textsuperscript{8}W. W. Charters, \textit{Motion Pictures and Youth}, New York: The Macmillan Company, 1934, p. 11.

\textsuperscript{9}Dale. \textit{op. cit.}, p. 234.
To separate motion pictures into two classifications (1) those which entertain and (2) those which educate, is not paralleled in the teaching of literature and drama in schools. Many novels and plays which were written in the first instance to entertain are used in schools for highly desirable educational purposes. The novels of Charles Dickens and the plays of Shakespeare were not written as school text-books, but no one would question their educative value in the study of English literature. The distinction is rather one of use than of something inherently different in the nature of the films themselves. The motion picture David Copperfield was produced to entertain, but is highly regarded by teachers of English as having educational value in studying the work of Charles Dickens.¹⁰

Dale supports the same idea saying: "The basic differentiation between entertainment and education is not in the materials themselves, but in the attitude of the educator or the entertainer."¹¹

Therefore, the use of the film determines whether a particular film will be considered educational or entertainment. However, the fact that some films have a planned sequence for communicating certain messages, and a definite relation to the school curriculum should not be overlooked. Such films used almost wholly for serious educational purposes should be distinguished from the rest. We shall for convenience label them educational films. Therefore, an educational film is a film that has a planned sequence to impart particular


concepts related to the school curriculum, and which is used purposefully to educate.

Importance of the Study

The importance of this study lies in the fact that although adaptation of educational films is an indispensable practice, nevertheless, a practical theory for such educational film adaptation does not now exist. This thesis aims to develop such a theory.

But, why is adaptation of educational films an indispensable practice? The answer to this question is threefold:

1. The motion picture is simply a medium of communication. In this sense it does not differ from the textbook; at the same time, its educational potentialities should not be overlooked. Through adapting and translating written materials, the intellectual works of world philosophers, leaders, scientists, etc. are made available in many languages. This availability facilitates the spread of enlightenment, thus, fosters the welfare of the human race. The same thing is an imperative requisite with the motion picture. Through film adaptation, excellent pictures that are produced in a certain language can be made intellectually available to people of different nations.

2. In many parts of the globe the use of audio-visual materials, especially motion pictures, is meager. The cost of production, as well as the facilities for projection are a
great barrier in the way of using films to improve teaching. By adapting the appropriate films made in other countries the first obstacle -- cost of production -- is minimized.

3. With the establishment of international telecasting, many educational motion pictures adapted to different languages will be needed.

Method of the Study

The writer hypothesizes that (1) the motion picture is a unique type of language, (2) there is not a well-defined practical theory for adapting educational films, and (3) the motion picture needs different methods of translation from those of the verbal language.

In Chapter II, Motion Picture Language, the writer tests the hypothesis that the motion picture is a unique type of language. The validity of the second hypothesis will be tested in the third and fourth chapters. In Chapter III, Review of Literature on Film Translation, scholarly articles on film translation will be reviewed. In Chapter IV, An Analysis of Eight Educational Films Translated from English into Arabic, an analysis of the methods followed in translating eight American educational films from English into Arabic will be presented.

In Chapter V, Principles of Translating Printed Materials, a study of the principles of translating the verbal language will be presented.
In Chapter VI, *The Sound Track in the Process of Film Adaptation*, the writer will present the principles of translating the verbal element in the motion picture, a test of the third hypothesis of this study, and a discussion on the place of sound effects and music in the process of film adaptation.

In Chapter VII, *The Picture Element in the Process of Film Adaptation*, the place of the picture element of the motion picture in the process of adapting films will be discussed.

Chapter VIII, *Conclusions and Recommendations*, will be devoted to a summary of the study and recommendations for further studies.
CHAPTER II
MOTION PICTURE LANGUAGE

This chapter aims to test the hypothesis, the motion picture
is a unique type of language, and to study the nature of this langua­
ge. First, we will study what is meant by "language." Following
that, a detailed study of the motion picture medium will be presented.

Susanne Langer noted three salient characteristics of what
she called "true language" or "discourse." She says:

In the first place, every language has a
vocabulary and a syntax. Its elements are words
with fixed meanings. Out of these one can con­
struct, according to the rules of the syntax, composite
symbols with resultant new meanings.

Secondly, in a language, some words are equivalent
to whole combinations of other words, so that most
meanings can be expressed in several different ways.
This makes it possible to define the meanings of the
ultimate single words, i.e., to construct a dictionary.

Thirdly, there may be alternative words for the same
meaning.1

On the basis of these characteristics she distinguished
between verbal language and wordless symbolism, she says:

In all these salient characters it (verbal language)
differs from wordless symbolism, which is nondiscursive and
untranslatable, does not allow of definitions within its
own system; and cannot directly convey generalities. The
meanings given through language are successively understood,
and gathered into a whole by the process called discourse;
the meanings of all other symbolic elements that compose a
larger, articulate symbol are understood only through the

meaning of the whole, through their relations within the
total structure. Their very functioning as symbols depends
on the fact that they are involved in a simultaneous, integral
presentation. This kind of semantic may be called 'presenta­
tional symbolism,' to characterize its essential distinction
from discursive symbolism, or 'language proper.'

Susanne Langer believes that a picture has no vocabulary, and
that the term "picture language" is deceptive, and loose. She says

"... although the different media of non-verbal representations are
often referred to as distinct 'languages,' this is really a loose
terminology."

That language is primarily verbal is supported by Mario Pei,
he says:

The word 'language' issues from the Latin 'lingua,'
'tongue.' The original idea, therefore, bears upon the
human speech organs, with stress upon one organ, the tongue.
Some people consequently regard anything that does not
involve the speech organs as beyond their scope. Others,
however, are fascinated by the semantic aspects of language,
that is, language's role as a meaning carrier, and since
many things besides speech carry meaning, these people extend
'language' to cover not merely everything that relates to
word meanings, word relationships, word connotations and
colorations but also gestures, symbols, and meaningful signs
of all descriptions ... 

Without delving too deeply into what might be styled
'speechless' methods of communication, it may safely be
stated that writing, ... is so closely linked with speech

2 Ibid., pp. 78-79.
3 Ibid., p. 76.
4 Ibid., p. 78.
5 Ibid., p. 78.
itself as to fall under the heading of 'language' in the acceptance of the majority . . .

It therefore seems reasonable to view language as primarily speech - that is to say, audible sounds produced by the human vocal apparatus and transmitted by sound waves to the ears of other human beings. But in order to be language, these human sounds must be based upon a previous understanding among their users that they carry certain definite meanings. Otherwise, they will be mere noises.⁶

On the other hand, there are some scholars who recognize pictures as having a language of their own. On his definition of language as "a system of signs, each with a generally agreed-upon meaning,"⁷ Brooker believes that verbal language is only one of many ways of conveying a message.⁸ He explains this idea as follows:

In the course of history, man has used almost everything in his environment, and almost every power of his physical being, as a vehicle to carry his messages and to receive messages from others. He grunted his way to phonetic speech, fingered and daubed his way to art, used his muscles to develop many forms of the dance, and learned to give meaning by the pitch of his voice and by the way he used the muscles of his face. He gathered pieces of sticks and laid them in his track, blazed trees to tell others of the path, used the smoke of his campfires to carry his messages, used his hands to talk with strangers, developed rituals to tell the story of the tribe; and, finally, like Prometheus, reached into the clouds to make his messages ride the lightning.⁹

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⁸ Ibid., p. 6.
⁹ Ibid., pp. 6-7.
As to "picture language," Brooker believes that "it lacks the basic structure that is necessary to make it a full language . . . The achievement of its full potential awaits a broader realization that it is in reality a new language, a better understanding of its form of expression, and a more complete application of its possibilities."¹⁰

The existence of non-verbal languages has been recognized by Ruesch and Kees; they say:

In broad terms, nonverbal forms of codification fall into three distinct categories:

Sign language includes all those forms of codification in which words, numbers, and punctuation signs have been supplanted by gestures; these vary from the 'monosyllabic' gesture of the hitchhiker to such complete systems as the language of the deaf.

Action language embraces all movements that are not used exclusively as signals. Such acts as walking and drinking, for example, have a dual function: on one hand they serve personal needs, and on the other they constitute statements to those who may perceive them.

Object language comprises all intentional and non-intentional display of material things, such as implements, machines, art objects, architectural structures, and - at last but not least - the human body and whatever clothes or covers it. Signs has a material substance, and this aspect of words also has to be considered as object language.¹¹

On examining the meanings of the word "language" given by

¹⁰Ibid., pp. 18-19.

one can find that "language" encompasses more than "verbal language."

The definition of language is given as -

1-a Audible, articulate human speech as produced by the action of the tongue and adjacent vocal organs. b. The body of words and methods of combining words used and understood by a considerable community, especially when fixed and elaborated by long usage; a tongue; as, the Latin language. In this sense there are over a thousand languages in the world, most of them classified into linguistic families . . .

2. Any means vocal or other of expressing or communicating feeling or thought. In the usual sense, language means a system of conventionalized signs, especially words or gestures having fixed meanings. But not all intelligible expressions are fixed, nor all used exclusively for communication - since language plays a large role in our thinking processes. Hence language may mean (1) expression that conveys ideas, (2) expression that symbolizes ideas. Bodily expression whether gesture or articulation, and inscription, as printing, writing, etc. are its chief forms, but any systematic symbolism in a more or less transferred sense is called language, as the language of art.

3. Specific: a. The faculty of verbal expression and the use of words in human intercourse; also, the words themselves in their grammatical relationship as given or preserved in literary embodiments. b. The inarticulate sounds by which animals inferior to man express their feelings or their wants.

4. A special manner of use of expression, exp. verbal expressions, 5---, 6---, 7---, 8---

Thus, thinking of language as primarily vocal is inadequate.
The writer accepts Webster's definition of language as: "any systematic symbolism, in a more or less transferred sense." Therefore, we have verbal language, musical language, object language, art language, picture language etc.

"Every individual," says Brooker, "needs and uses more than one language. No language ever duplicates another, for each language is an art form and exists only because it can express an area of experience better than other languages can."

Dewey has emphasized the same idea when he said:

"The needs of daily life have given superior, practical importance to one mode of communication, that of speech. This fact has unfortunately given rise to a popular impression that the meanings expressed in architecture, sculpture, painting, and music can be translated into words with little if any loss."

The motion picture was the first medium to utilize four different means of expression: verbal language, picture language, music and sound effects. Through integration of these four media, the motion picture has proved to be a powerful medium of communication; in the words of Paul Rotha: "... a powerful -- if not the most powerful, instrument for social influence today."

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14 John Dewey, Art as Experience, New York: Minton, Blach 
& Co., 1934, p. 106.

15 Paul Rotha, Documentary Film, London: Faber and Faber Limited, 1936, p. 15.
This new and powerful medium of expression possesses its own language, which differs from the languages of its components. The language of motion picture is, in fact, discursive. It has its own basic units, i.e., vocabulary, and syntax. Different film-makers have different styles, the same as writers in literature.

The remainder of this chapter will be divided into three parts. Part one will deal with the basic units, part two with the syntax of the motion picture, and part three with the style of the motion picture language.

Part I: Basic Units of Motion Picture Language - Motion Picture Vocabulary

From frames having pictorial unity, scenes or shots are formed. Shots or scenes are joined to form a sequence. A sequence is "an episodic portion of a film characterized by an inherent unity."¹⁶ From different sequences, the film is built. So, at the base of motion picture construction we have "frames" from which the whole film is built. In this sense, frames correspond to words in the verbal language. Therefore, it is safe to state that frames are the basic units of the motion picture language. "Frame" corresponds to "word" in the verbal language.

In the sound motion picture, four elements are integrated in one frame: the picture, verbal language, music, and sound effects. To understand the nature of the basic unit of motion picture language

¹⁶Journal of the University Film Producers Association, Volume 7, No. 4, Summer, 1955, p. 18.
we must discuss the nature of its four elements.

**Elements of the Basic Unit**

The key elements of the frame are: the picture, verbal language, music and sound effects. Each will be discussed in turn.

**Picture**

The motion picture camera and the motion picture projector are "... nothing more than tachistoscopic devices for recording and projecting a series of still pictures in a succession and progression which, by virtue of a peculiarity of the human eye known as persistence of vision makes these static images appear to move." To do that, Wagner says:

The camera and projector must be capable of replacing images at a rate rapid enough to allow the effect of persistence of vision to operate. This rate has been established at a minimum of 16 'frames,' or pictures per second.

These pictures must be accurately aligned or registered to reduce disturbing flutter or displacement of image.

They must also, during transport, be cut off from the viewer's line of vision in order to prevent blurring. Each image must be stationary when viewed. This is accomplished by interrupting the light striking the film at intervals when the film is in movement in the projector and in the camera. The device used is the camera shutter, and the shutter on the projector.

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Thus, what we really see are instantaneous, stationary pictures. The series of these still pictures plays the greatest role, among the other elements: verbal language, music and sound effects, in motion picture communication. This principle is known as the "principle of visual primacy." Dale has explained this idea as follows:

The influence of the motion picture is primarily in the picture, secondarily in the accompanying language and/or music . . . Note how an able telecaster of a football game makes the pictures tell the story. He lets his audience see, and he does not interfere. Occasionally he will help them look more intelligently, by mentioning a formation or pointing to something they may miss.19

According to the visual primacy principle, Goldner indicates the necessity of relying, first of all, on the picture, then on the sound in motion picture communication. He says:

The writer of a training film script must be picture-minded first and word-minded second. In analyzing his subject matter, he must ask himself constantly 'What is the picture at this point that will tell the story in terms of the objective?' and having determined the picture, he must then ask, 'What is the simplest meaningful statement that I can make that will extend the effectiveness of the picture and add to its retention potentiality?' The writer with genuine ability for training film production understands that he is working with a medium in which the primary value is visual and secondary value is auditory.20


Pudvokin advocates the intelligent use of pictures to express ideas. He uses the term "plastic material" denoting visually expressive materials. He explains this term as follows:

Anyone familiar with literary work can well represent to himself what is an expressive word, or an expressive style; he knows that there are such things as telling, expressive words, as vividly expressive word-constructions - sentences. Similarly, he knows that the involved, obscure style of an inexperienced writer, with a multitude of superfluous words, is the consequence of his inability to select and control them. What is here said of literary work is entirely applicable to the work of the scenarist, only the word is replaced by the plastic image. The scenarist must know how to find and to use plastic (visually expressive) material: that is to say, he must know how to discover and how to select, from a limitless mass of material provided by life and its observation, those forms and movements that shall most clearly and vividly express in images the whole content of his idea.²¹

He gave the following example to illustrate how pictures can convey ideas without the use of the verbal language. He says:

... from the film The Leather Pushers, the incident is as follows. A man sitting at a table is waiting for his friend. He is smoking a cigarette, and in front of him on the table stand an ash tray and a glass half empty of liquid, both filled with an enormous number of cigarette ends. The spectator immediately visualizes the great space of time the man has been waiting and, no less, the degree of excitement that has made him smoke nearly a hundred cigarettes.²²

²¹V. I. Pudvokin, Film Technique and Film Acting, New York: Lear, 1949, p. 27.
²²Ibid., pp. 29-30.
Pictures are a powerful means of communication. Dale\(^23\) has put eight pedagogical uses of still pictures according to the pictures' value in communication. These uses are: 1. to translate word symbols, 2. to enrich reading, 3. to introduce and motivate, 4. in assigning research, 5. in preparing reports, 6. to correct mistaken impressions, 7. to recapitulate a unit, 8. to stir the emotions.

The first, the sixth, and the eighth of these uses are adaptable for the picture in the motion picture. In more detail, the picture in the motion picture can:

Translate word symbols:

What might otherwise remain verbal abstractions can be translated into sharply defined visual pictures. A child studying prehistoric animal life knows that a dinosaur is a big and strange animal - but how big and how strange? A picture of a dinosaur alongside an elephant will enable the child to see the strange creature that no zoo in the world can show him; it also tells him something of the animal's size.\(^24\)

... Correct mistaken impressions: "Abstractions are of course, intrinsically non-pictorial, but pictures can help in developing them and in preventing the development of false abstractions.\(^25\)

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\(^24\) Ibid., p. 250.

\(^25\) Ibid., p. 250.
• Stir the emotions: Pictures are seldom purely neutral in effect. Even the least intense stir some emotional response. And the more striking ones play the whole range of feelings, from breathless beauty to agonizing horror. In short a picture compels feeling. [Note Figure 1 on page 22]. A Thanksgiving scene can induce thoughtfulness and thankfulness - Realistic views of slum housing may stimulate one into taking remedial action. . . We can improve our schools, our homes, the word of our legislative bodies only as we can develop certain images in the minds of people - and pictures can create such images.²⁶

In addition to these specific uses, projected pictures have two further values as a medium of communication:

1. Magnification often helps to get across an idea: Photographs in books cannot always provide the size or detail required for full understanding. The projected picture, sometimes 200 times as large as the original, is much easier to see. Furthermore, the picture takes on new importance when it is impressively magnified.²⁷

2. Concentrated attention can be expected when distractions are removed: A darkened room fairly forces the viewers to direct their eyes to the screen. The dramatic intensity - produced by magnification, darkness, and the white light of the projection - directs 'all eyes' to the picture itself.²⁸

Adding the element of motion, the motion picture possesses a unique characteristic: portrayal of continuity of action, as Hoban said:

Pictures are able to perform one or a combination of three

²⁶Ibid., p. 251.
²⁷Ibid., p. 248.
²⁸Ibid., p. 248.
Figure 1: Pictures Can Stir Emotions
functions: to show what something looks like, to show how something works (including how something is done), and to show how something happens. While any kind of picture can show what something looks like, only a motion picture can show how something works or how something happens, for a motion picture is unique in its portrayal of continuity of action.29

Continuity of action in the motion picture does not have to be identical to reality. The growing of a plant that takes days can be presented as a continual process lasting for minutes on the screen. The burst of a balloon that takes fractions of a second, can be extended on the screen for a period of minutes. Thus, the time factor in any operation or series of events in the motion picture can be magnified or contracted.

Pudvokin gives an interesting example of the artistic use of slow- and fast- motion techniques. After watching a man scything wet grass in the sunlight, he describes how this incident might be presented on the screen. He says:

When the director shoots a scene, he changes the position of the camera, now approaching it to the actor, now taking it farther away from him, according to the subject of his concentration of the spectator's attention -- This is the way he controls the special construction of the scene. Why should he not do precisely the same with the temporal? Why should not a given detail be momentarily emphasized by retarding it on the screen, and rendering it by this means particularly outstanding and unprecedently clear? Was not the rain beating on the stone of the windowsill, the grass

falling to the ground, retarded in relation to me, by my sharpened attention? . . .

I tried in my mind's eye to shoot and construct mowing of the grass approximately as follows:

1. A man stands bared to the waist. In his hands is a scythe. Pause. He swings the scythe. (The whole movement has been recorded at normal speed).
2. The sweep of the scythe continues. The man's bank and shoulders. Slowly the muscles play and grow tense (recorded very fast . . . so that the movement on the screen comes out unusually slow).
3. The blade of the scythe slowly turning at the culmination of its sweep. A gleam of the sun flares up and dies out. (Shot in 'slow motion').
4. The blade flies downward (normal speed).
5. The whole figure of the man brings back the scythe over the grass at normal speed. A sweepback. A sweep-back. A sweep . . . And at the moment when the blade of the scythe touches the grass -
6. slowly (in 'slow motion') the cut grass sways, topples, bending and scattering glittering drops.
7. Slowly the muscles of the back relax and the shoulders withdraw.
8. Again the grass slowly topples, lies flat.
9. The scythe blade swiftly lifting from the earth.
10. Similarly swift, the man sweeping with the scythe. He mows, he sweeps.
11. At normal speed, a number of men mowing, sweeping their scythes in unison.
12. Slowly raising his scythe a man moves off through the dusk. 30

Pudvokin reported, after seeing the result on the screen, that

". . . the combination of shots at a variety of speeds, yielded a deepened, -- enriched, sense of the process . . ." 31

31Ibid., p. 150.
Continuity of action can be created using still pictures. This potentiality of the medium gave us the animated cartoons.

Palmer comparing the roles of live-action camera, and the animation camera, said, "... Live action will produce anything that can be seen, animation, anything that can be imagined."32

Jones described the power of animation as follows:

The animated cartoon in its mature form, can be the most facile and elastic form of graphic art ... It knows no bounds in form or scope. It can approach an absolute in technical realism and it can reach the absolute in abstraction. It can bridge the two without taking a deep breath. The technical problems present in live action, when it tends toward the unreal or fantastic, are simply not present to the animator ... A red ant can grow to a golden elephant under his hand, a flying horse recede to a black pearl. He can create thunderstorms, tidal waves, flying carpets, talking hornets, dancing orchids, all with credibility, all with no technical obstructions.33

Palmer summarized the potentialities of the animated cartoons noting that they can

1. solidify the intangible,
2. visualize the invisible,
3. animate the inanimate,
4. re-create physical objects which are extinct, inaccessible to the camera, or depict the 'future',
5. broaden the personal and generalize the specific,
6. characterize and symbolize . . . ,
7. distill and depict 'process' . . . .

34 C. Palmer, op. cit.
In short, animation can give life to things, go beyond reality, simplify things and actions, add humour to facts, and allow free play of the imagination.

In live-action, the conception of using the camera to express meanings has undergone a radical change. A brief study of the evolution of this conception will help clarify the role of the camera as a device for recording visual images to express ideas and meanings.

In analyzing the films shown at the early stage of cinema development, Bardeche and Brasillach concluded that, "It was on topical and scenic films that the first success of the cinema was established." Arnheim reports that, "In those days, the pleasure given by film derived almost entirely from the subject matter. People were greatly thrilled by the sight of a locomotive approaching at top speed or the emperor in person riding down Unter den Linden." Paul Rotha gives the following as a reason for this phenomenon:

From the first experimental stages of cinema until after the World War, for a period of about twenty-five years, the production of films flourished upon the mistaken belief that the camera recorded what was placed before it. And having begun on an unsound basis, it was natural that the infant movie should borrow and adapt from the theatre not only subjects and actors, but methods of style and approach.

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It was not until the movie makers realized the peculiar characteristics of the films that the idea of mechanical reproduction of reality was discarded, as Arnheim reported: "A film art developed only gradually when the movie makers began consciously or unconsciously to cultivate the peculiar possibilities of cinematographic technique and to apply them toward the creation of artistic production." 38

Credit goes back to George Melies who thought of making the film "something more than a mere offshoot of photography." 39 Bradeche and Brasillach explained Melle's philosophy in movie making as follows:

He saw clearly that the cinema is now vowed to honesty and mere representation, that it knows no compulsion to logic or probability and that, above all else, it is a machine for creating illusions. Stamped all over his work is the first great law of the cinema: 'Thou Shalt Deceive.' 40

"From an analysis of the crude but ingenious and, above all, imaginative films of Melle's," Rotha thinks that "it might have been grasped that the screen was capable of more interesting uses than the representation of crowd spectacles, melodramatic novels and records of actual events." 41

38 R. Arnheim, op. cit., p. 35.
39 M. Bardeche and R. Brasillach, op. cit., p. 10.
40 Ibid., p. 33.
41 Paul Rotha, For Filmgoers Only, p. 24.
That the film-image is not a mechanical reproduction of reality is a strongly recognized principle among motion picture scholars. Peters considers the film-image as "a three-dimensional sign a symbol of the reality perceived, a symptom of the inner self of the maker of the film, and a signal for the spectator."\(^{42}\)

Arnheim denies that film is nothing more than the mechanical reproduction of reality. He says:

Thus, —, people who contemptuously refer to the camera as an automatic recording machine must be made to realize that even in the simplest photographic reproduction of a perfectly simple object; a feeling for its nature is required which is quite beyond any mechanical operation.\(^{43}\)

Spottiswoode describes the film maker's ability to manipulate reality as he records it on the film celluloid:

The whole visible world is at the command of the film director. There is no object too large or so small that he cannot compass it with his camera; he may withdraw it until the vastest objects come within its field, or advance it until, with the aid of the microscope, he has sufficiently enlarged the most minute. He need not restrict the sections


\(^{43}\) R. Arnheim, *op. cit.*, p. 11.
of the world to their natural places; but may re­
duplicate them on his strip of film, or juxtapose
them even though in nature they were far apart.
His records of things as they are, or of multiple
movements and composite shots, may be projected on
the whole screen, or reduced until the significant
part occupies only one-thousandth of its area.44

This very difference between reality seen and reality filmed
constitutes the cinema's peculiar ways of expression, has been
pointed out by Wagner:

The motion picture's power is not in the fact that
it reproduces reality, but rather that it intensi­
fies, abridges, and reorganizes the real world,
focusing the attention of an audience on significant
details, moving the spectator through an arranged
selective sequence of visual cues in a highly
unrealistic way.45

Spottiswoode believes that "the public can be trained to
appreciate that the differences between nature seen and nature
filmed constitute the chief value of the cinema and are the source
of much of the enjoyment it can provide."46 This understanding is

44 Raymond Spottiswoode, A Grammar of the Film, London:

45 Robert W. Wagner, "The Spectator and the Spectacle,"

absolutely necessary for a movie maker. As a matter of fact, it distinguishes an excellent film maker from a poor one. A comparison between an amateur and a professional use of the camera in story telling will help clarify this idea.

Most amateur films do not make sense because the man with the camera fails to see the difference between understanding the mechanics of the camera and understanding the technique of the camera in story telling. Suppose, for example, one wishes to make a rather simple film on a walk through the woods. The amateur tendency is to report everything and particular attention to nothing. 'Long shots' or distant views are filmed almost exclusively. The camera is commonly moved widely from side to side in the belief that in this way all will be encompassed.

To the cameraman who has schooled himself to think pictorially, however, the film story will be told in an entirely different way. The real film raconteur will turn his camera on the detailed rather than the general. His film will not show 'a woods,' but rather a tall, stately tree with sunlight shafting through the leaves; a cluster of violets at the base of a rotted stump; a ripple on the brook and the water bubbling over into a quiet pool disturbed only by leaves falling quietly on the surface of the water; a butterfly nervously hovering above a flower; the tiny handprints made by a raccoon the night before; a squirrel, undecided whether to run or stay, peering around the trunk of a tree. Our cameraman will not see 'a field.' Instead, he will photograph the way the tall grass ripples in the wind; the grousie scuttling out of the hedge; the tattered scarecrow with sparrows teetering impertinently on the broomstick arms.

Thus, on appreciating the difference between nature filmed

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and nature seen, the cameraman selects what will visually express better his ideas. Through "selection" lies the power and advantage of filmic representation. In the words of Pudvokin, this idea is expressed as follows:

... we learned that the process of film-shooting may be not only a simple fixation of the event taking place before the lens, but also a peculiar form of representation of this event. Between the natural event and its appearance upon the screen there is a marked difference. It is exactly this difference that makes the film an art. Guided by the director, the camera assumes the task of removing every superfluity and directing the attention of the spectator in such a way that he shall see only that which is significant and characteristic.48

Nilsen used the term "optical interpretation" to denote the process of selection in motion picture communication. He explains this term as follows:

What the spectator sees on the screen is not the real action of the scene as it took place in front of the lens at the moment of shooting, but its optical interpretation as fixed on the film.

We use the term 'interpretation' deliberately, for the cinematic representation is never absolutely identical with the reality subjected to transmission. In all cases it is a specific optical treatment of the object, more or less modifying its character and even its content significance. Even those films we are accustomed to call 'documentary' really give us a greater or lesser degree of approximation to simple transmission of the true geometrical

48 Pudvokin, op. cit., p. 58.
relationships and physical qualities of the object photographed. A photograph is by no means a complete and whole reflection of reality.\textsuperscript{49}

In the process of selection the cameraman is faced with the problem of the screen limitation. This problem has been under study and research for a long time.

In 1888 Edison established the screen ratio i.e., the ratio between the width and the height of the screen, as 1.33 to 1. With the arrival of the sound film the sound track reduced the width by 2.5 mm., and the ratio was modified to 1.15 to 1. Nilsen reports that many cinematographers believed that the ratio 1.15 to 1 did not meet "the compositional needs of the frame,"\textsuperscript{50} and in 1933 the ratio was changed to 1.33:1.

Aiming at the most pleasing and esthetically satisfying form of the screen, the ratio 1.33:1 has been questioned. Wagner reports that the ratio 1.66 to 1, has been found in numerous paired experiments to be satisfactory.\textsuperscript{51} Nilsen reports that in 1930, Eisenstein claimed that the circle is the best form of the screen, because, "Rectangles of various proportions introduced into the circle would then completely

\textsuperscript{49}Vladimir Nilsen, \textit{The Cinema as a Graphic Art}, Great Britain: Newnes: Limited, p. 16.

\textsuperscript{50}Ibid., p. 27.

\textsuperscript{51}Wagner, "The Spectator and the Spectacle," \textit{op. cit.}. 
satisfy the varied compositional needs that arise in the course of successive shots.\footnote{Nilsen, \textit{op. cit.}, p. 27.}

On the other hand, Spottiswoode reports that Eisenstein advocated the use of a square screen through which rectangles of various shapes can be drawn.\footnote{Spottiswoode, \textit{op. cit.}, p. 144.}

Attempts have been made to increase the width of the screen to achieve greater realism. In the Paris Exposition in 1900, a battery of ten motion picture projectors was used to project a huge colored image on a 360-degree screen.\footnote{Wagner, "The Spectator and the Spectacle," \textit{op. cit.}}

Today, the American Motor Corporation displays at Disneyland a battery of eleven 16 mm projectors to project a huge image in the interior side of a cylinder, eight feet high and forty feet in diameter.\footnote{Ibid.}

In 1952, Cinerama was developed in which three synchronized projectors project three adjacent images on a large screen of ratio 2.35 to 1. The width of the Cinerama screen is almost three times that of the standard screen. Its viewing angle is 146-degrees in the horizontal dimension, and 5.5-degrees in the vertical.

In 1953, Cinemascope was introduced. Unlike the Cinerama,
Cinemascope used one projector and a special kind of lens to project a picture on a large screen of ratio 2.55 to 1.

In 1954, VistaVision was developed. In the words of Wagner:

... this system requires a specially designed camera in which the negative travels laterally, to form images on an area 1.485 inches wide by 0.991 inches high – about the size of double-frame filmstrip image. These negative images are then turned 90-degrees in the printing stage, and are reduced to standard position prints either in 'squeezed' or conventional form, in an aspect ratio of 1.85 to 1.56

Michael Todd, in cooperation with the American Optical Company, used very wide angle lenses, and recorded the images on a 65 mm camera negative film to produce Oklahoma in Todd-AO. The film is projected on a large curved metallic screen of ratio 2.00 to 1.

In spite of all these attempts to increase the screen's width, the fact still remains: the screen is limited. In the words of Arnheim:

The limitations of a film picture and the limitations of sight cannot be compared because in the actual range of human vision the limitation simply does not exist. The field of vision is in practice unlimited and infinite. A whole room may be taken as a continuous field of vision, although our eyes cannot survey this room from a single position, for while we are looking at anything our gaze is not fixed but moving. Because our head and eyes move we visualize the entire room as an unbroken whole.57

56 Ibid.
57 Arnheim, op. cit., pp. 16-17.
Facing this limitation, the movie-maker has to decide on two things: (a) the camera viewpoint, and (b) the distance between the camera and the object. His decision is the first step in organizing the filmed object to express certain ideas.

Camera Viewpoint

Nilsen indicated the significance of the camera viewpoint when he said:

The camera viewpoint has a large share in determining the direction and angle from which the spectator perceives the photographed object. When he selects the camera viewpoint the cameraman determines the spectator's relationship to the object photographed. With every change in the viewpoint there is a change in the spectator's perception of the object, and therefore in the object.\(^{58}\)

Any object can be photographed from a thousand different points. However, there are some scholars who believe that there is only one point from which the object has to be photographed to express the intended idea. Accordingly, the choice of the camera viewpoint should not be left to chance, as Paul Rotha said:

The choice of an angle cannot be a disputed point or even a matter of opinion. Provided the mood of an angle and its connection with the sequence is clearly indicated by the scenario-plan, there is only one position in which the camera can be placed in order to render that shot most expressive of the mood required.\(^{59}\)

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\(^{58}\) Nilsen, \textit{op. cit.}, pp. 36-7. (Underlining is mine.)

Arnheim agreed with Paul Rotha when he stated as a principle: "Every object must be photographed from one particular viewpoint."\(^60\)

That the selection of camera viewpoint will not be left to chance is a sound principle. The selection will be done in relation to what we want the spectator to see. However it is inaccurate to state that there is only one point from which the object has to be photographed; as Spottiswoode said,

\[\ldots\] there is no reason to suppose that the choice of a camera angle is not perfectly free, just as the choice of a word or phrase of music is free. Two writers, asked to convey the same mood, will employ widely different means; some readers will prefer one, some the other; and, if the writers are men of ability, it may be impossible to establish an agreed order of precedence between them.\(^61\)

Through the appropriate selection of the camera viewpoint the peculiar characteristics of an object can be shown. Nilsen\(^62\) gave an interesting example, explained below. On pages 37 and 38 there is a series of photographs of a building, in front of which there is a statue, taken from different viewpoints.

"In Figure 2, a central viewpoint from average height was chosen. We see a frontal view of the building in a symmetrical plan."

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\(^60\)Arnheim, op. cit., p. 127.

\(^61\)Spottiswoode, op. cit., p. 136.

Figure 2: A Central Viewpoint from Average Height

Figure 3: The Viewpoint is Lowered from the Average Height

Figure 4: The Viewpoint is Shifted to the Left
Figure 5: The Viewpoint is Shifted to the Right and Nearer to the Object

Figure 6: The Viewpoint is Further Lowered from the Average Height

Figure 7: The viewpoint is Raised Above the Average Height
"If the viewpoint is lowered we get Figure 3 where the predominant feature becomes the statue, which is sharply defined against a background of sky. In addition, such a viewpoint gives us a perspective of the wings not existing in Figure 2."

"Shifting the viewpoint to the left [see Figure 4] we get a diagonal view of the building, which preserves the general balance of the composition, but endows the representation itself with a relatively dynamic quality."

"If the viewpoint is shifted to the right and nearer to the building [see Figure 5] the right arch is differentiated from the others by disproportionate enlargement, and becomes a dominating factor in the composition."

"If we lower the viewpoint [see Figure 6] the building is thrown backward and its architectural unity is lost."

"By raising the viewpoint above the average height [see Figure 7] the statue is thrown against the background of the columns, and the building as a whole loses its monumental quality."

The selection of viewpoint to show the peculiar characteristics of a moving object (or an operation of a device) is quite significant as for a static object. Roshal showed that "the training efficiency of a motor-skill task (knot tying) is significantly increased when the film-presented model is shown as a performer would perceive the task as compared with the film presented from the viewpoint of a trainee watching a demonstration."

Gibson attributed much of the superiority of the film Position Firing over the conventional methods to the subjective use of the camera. He reports:

For long passages, the camera takes the position of the trainee in the learning situation, seeing what he would see, rather than the more conventional position of an onlooker watching someone else in the learning situation. Nearly one-third of the time spent on instruction in the film is devoted to those passages.

In addition to showing the peculiar characteristics of an object, the particular conception of an object can also be conveyed by selecting the appropriate viewpoint.

In the film, The Seventh Voyage of Sinbad, a scene shows the tiny princess standing desperately looking at Sinbad who was carried away by a huge bird. Then the magician moves in the scene behind the princess. His legs are very large compared with the princess' body. As the princess turns back to face the magician, the scene is cut to show the frightening body of the magician taken from a very low point - to show how the tiny princess perceives the magician.

The technique of revealing what the actor sees is often followed in contemporary films. The actor looks out a window, then a

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cut to show what he is watching. Figures 8 and 9 on pages 42 and 43 show two different shots of a building taken to reveal what the actor is looking at.

Shots revealing what the actor sees, in some cases, evoke psychological effects. For example, in Cinerama where the audience is the actor, Wagner reports that, "People actually got airsick during the plane ride sequence . . ."65

Further examples showing how the choice of the appropriate camera viewpoint evokes emotional and psychological effects, come from the films Mother, and October. Nilsen reports that in the film Mother, "The depression, grief, and despair expressed by the actors intensified by foreshortenings achieved by filming from a viewpoint slightly higher than the normal. As the result the actors appear to be crushed to the ground."66 In the same film a shot is taken of a policeman from a low viewpoint which "intensifies the impression of towering strength conveyed by this agent of Tsarist autocracy."67

Figures 10, 11, 12 and 13 on pages 44 and 45 from the film October show the achievement of psychological effects through manipulating the camera viewpoint, as reported by Nilsen:

67 Ibid., p. 47.
Figure 8: A Shot Revealing the Actor's Viewpoint
Figure 9: A Shot Revealing the Actor's Viewpoint
Figure 10: A Compositional Plan for a Shot in the Film "October" (Form I)

Figure 11: A Compositional Plan for a Shot in the Film "October" (Form II)
Figure 12: A Compositional Plan for a Shot in the Film "October" (Form III) Showing Tilting of Frame

Figure 13: The Actual Shot From the Film "October"
In the film 'October' is a scene in which the revolutionary workers of Petrograd are preparing their defense. People carrying rifles and dragging cannon march past in uninterrupted procession. The drama of the defense is conveyed by the tense dynamism of the procession passing through the streets of Petrograd at night.

This procession could have been filmed in the manner shown in Figure 10. But in this construction the spectator does not feel the dynamism of the unbroken procession, as the right dynamic distortion has not been found for the figures.

For these shots a sloping platform was constructed, up which the people passed. If a set-up had been selected which preserved the horizontal, the compositional scheme shown in Figure 11 would have resulted. Here the line of the platform runs almost parallel with the diagonal of the frame, and so the effect of the dynamic slope of the figures is partly lost.

The camera-man . . . modified the frame horizontal limits by tilting the camera sideways, so as to bring them into parallel with the line of the slope. The result is shown in diagram in Figure 12. Figure 13 is a frame from the film 'October'.

Camera viewpoints can be selected to convey particular conceptions and psychological effects as well as to attract the spectator's attention. Pudvokin said, "To show something as everyone sees it is to have accomplished nothing. Not that material that is embraced in a casual, merely general and superficial glance is required but that which discloses itself to an intent and searching glance, can and will see deeper." He believes that the film should strive to lead the

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69 Pudvokin, op. cit., p. 64.
spectator beyond the sphere of ordinary human conceptions. By doing that the spectators' attention can be held and more audience participation may be expected. Arnheim explains this idea as follows:

If an ordinary picture of some men in a rowing boat appears on the screen, the spectator will perhaps merely perceive that here is a boat, and nothing further. But if, for example, the camera is suspended high up, so that the spectator sees the boat and the men from above, the result is a view very seldom seen in real life. The interest is thereby diverted from the subject to the form. The spectator notices how strikingly spindleshaped is the boat and how curiously the bodies of the men swing to and fro. Things that previously remained unnoticed are the more striking because the object itself as a whole appears strange and unusual. The spectator is thus brought to see something familiar as something new. At this moment he becomes capable of true observation.70

Arnheim warns against the unskillful use of this method since it might lead to "the opposite result and may produce a view of the object which makes it quite unrecognizable, or which shows it so much out of character that the effect is not strengthened but lost."71 Thus, caution should be given to assume that the spectators will not be distracted by the unusual shots from the main theme. How this can be done is a problem for further studies.

Neu's study has some bearing on this problem. He intended to test the value of attention-gaining devices on film-mediated learning.

70 Arnheim, op. cit., pp. 43-44.

71 Ibid., p. 44.
He concluded that "A simple filmic presentation of the subject matter was as effective as, or more effective than, presentation involving such emphasis techniques as spot-lighting, ultra close-ups, dollying, stop motion etc." However, we must remember that such a conclusion is peculiar to the film tested. If it is true for this particular film, it does not mean that it will be valid for all films. Neu was on the safe side when he indicated, in the same study, that

If it seems necessary, in an instructional film, to use devices to attract or direct the learner's attention, use a technique which will emphasize something already in the film -- some special treatment of indigenous materials related to the subject content . . . rather than introduce extraneous or irrelevant materials.

Besides selecting the most expressive viewpoint, the distance between the object and the camera is vital in organizing the filmed scene.

Distance Between the Camera and the Object

In its early development, the camera had the function of recording a play on the celluloid. The camera was placed at a distance


to encompass the actor's movements. It was considered ill-practice for the cameraman to show only a part of the actor's body. The margins of the screen, then, "must not cut parts of anything off."^74

In those days the camera was passive - merely a spectator. In time, this function changed. Now, in the words of Van Dyke, "The camera is sometimes the spectator, sometimes the unseen observer."^75 Pudvokin reports that:

The Americans were the first to seek to replace an active observer . . . by means of the *camera*. They showed in their work that it was not only possible to record the scene shot, but that by maneuvering with the camera itself in such a way that its position in relation to the object shot varied several times - it was made possible to reproduce the same scene in far clearer and more expressive form than with the lens playing the part of a theatre spectator sitting fast in his stall. The camera, at last, received a change of life. It acquired the faculty of movement on its own, and transformed itself from a *spectator* to an active *observer*. Henceforward the camera, controlled by the director, could not merely enable the spectator to see the object shot, but could induce him to apprehend it.

It was at this moment that the concepts *close-up*, *mid-shot*, and *long-shot* first appeared in cinematography, . . . "^76

One of the first uses of a medium shot was made by Edwin Porter in 1903, in *The Great Train Robbery*. The medium shot was of a cowboy

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^74 Arnheim, *op. cit.*, p. 76.


^76 Pudvokin, *op. cit.*, pp. 54-5.
firing a gun directly at the audience. Wagner said that, "Members of that early film audience are said to have experienced much the same sense of participation as modern audiences seeing one of the large-screen or three-dimensional films of today." 77

Griffith is credited with being the first fully to exploit the use of "the close-up and the extreme close-up, and to standardize a basic shot plan which involved the long shot, medium shot, and close-up." 78

Griffith used his first close-up in the film For Love of Gold. Joseph North reports that in this film, "he was faced with the problem of making an audience aware of the distrust two thieves held for each other . . . in the midst of a scene in which their distrust begins to express itself, (he) moved his camera in close for a large full-length view of the actors thus enabling them to project their feelings through facial expression alone." 79

Later, in his film After Many Years, 1908, he moved his camera closer to the actor than he did in For Love of Gold. "Up to this time," says North, "close-ups, for the most part, had simply been used

77 Wagner, 'Design in the Educational Film: An Analysis of Production Elements in Twenty-One Widely Used Non-Theatrical Motion Pictures,' op. cit., p. 131.

78 Ibid., p. 131.

as trick shots. But in *After Many Years* it becomes 'the natural
dramatic complement of the long and full show'.” 80

"Despite all the advances that have been made in photographic
techniques," says Hoban, "the basic formula for the camera approach
to a photographic subject remains unchanged." 81 This formula is as
follows:

A long shot introduces the subject to the audience
and provides a general orientation. A medium shot
narrows the subject down and serves to identify the
important parts of the scene, and a close-up provides
for detailed observation of some important part of the
object shown. 82

Beside being an orientation shot, the long shot might also
serve as a detail shot. This is illustrated by the following instance
from the film *The Cameraman*:

Buster Keaton is in love with a girl who works at a
press-photography agency. The following scene takes
place: It is early morning. The office is being opened
up, the employees arrive. The reception room with the
counter at which customers are received is shown. This
is where the girl works. She enters, takes her coat off,
and settles down. Suddenly the camera is shifted a
little, and now a hitherto invisible corner of the
waiting room comes into the picture, and there sits
Buster Keaton, staring stupidly in front of him. He has
been sitting there all night waiting to see the girl.
This shows that even a long shot may actually be in a
sense, nothing but a detail shot. 83

To give an exact definition for the three basic positions of the camera: long shot, medium shot, and close-up, is difficult because these positions are relative.

Concerning "long shot," Arnheim says "Long shot - is of course a relative and inexact term, which cannot be defined, unless by saying: 'A long shot includes the whole of everything that is relevant to the particular total situation.'"\(^{84}\)

The University Film Producers Association interprets "long-shot" as the shot that shows the relationship of the object and its setting; and in which the image of the object is relatively small.\(^{85}\)

The writer is inclined to define the three positions of the camera according to their operational values. Thus, a long shot is an orientation shot in which the main object is introduced in its natural settings.

A medium shot is a shot where the marginal settings are excluded as a first attempt to concentrate on the main object. It serves as a bridge between the long-shot and the close-up.

A close-up is a shot where the main object is introduced alone on the screen for more detailed study.

So far, we have discussed the factors to be considered in photographing objects or actions to express certain ideas. Through

\(^{84}\)Ibid., p. 77.

\(^{85}\)Journal of the University Film Producers Association, loc. cit.
the appropriate selection of the speed of photographing and project-
ing the object, the camera viewpoint, and the distance between the
object and the camera the film-maker can communicate better his
ideas. A further factor that should be considered in selecting the
most expressive picture is color. To decide whether to take the
picture in color or in black and white demands the film-maker's
full understanding of the significance of color in pictorial communi-
cation.

Dale grouped the values of color in communication under four
points:

(1) Color has esthetic and emotional values.86 (2) "Color
can isolate elements, emphasize things that need to be emphasized,
and in many other ways make distinctions unmistakably clear to
students."87 (3) "... reality reaches our senses as pictures in
color; hence our teaching reconstructions of reality are more faith-
ful when shown in color. ... For certain reconstructions of reality,
color is not merely desirable; it is indispensable if we are to avoid
inadequate or misleading impressions."88 and (4) Color can be used as
a symbol, "It is true that certain colors and certain words for colors
communicate definite ideas."89

86 Dale, op. cit., p. 354.
87 Ibid., p. 353.
88 Ibid.
89 Ibid., p. 376.
Dewey indicated three important points concerning the potential of color in communication: (1) color does not occur in isolation, it is fused with its object; (2) color has psychological effects; and (3) color renders character distinct by emphasis. In his own words, Dewey argued

... an artist uses color to define an object, and accomplishes this individualization so completely that color and object fuse. The color is of the object and the object in all its qualities is expressed through color. For it is objects that glow — gems and sunlight; and it is objects that are splendid — crowns, robes, sunlight. Except as they express objects through being the significant color-quality of materials of ordinary experience, colors effect only transient excitations — as red arouses while another color soothes. Take any art one pleases, and it will appear that the medium is expressive because it is used to individualize and define, and this not just in the sense of physical outline but in the sense of expressing that quality which is one with the character of an object; it renders character distinct by emphasis.90

Wagner summarizes the qualities of color saying, "Color, —, is both a sign — showing what an object 'looks like,' and a symbol, built up through association with a variety of objects in the past — a quality inseparable from the object it 'fuses with.'"91

Thus, color can make the following contributions to the process

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90 Dewey, op. cit., p. 203.

of communication: (1) Reconstruction of reality is more faithful if it is in color; (2) color can express objects through being the significant color-quality of materials of ordinary experience; (3) color has psychological effects (pleasing, soothing, arousing); (4) color can isolate elements and emphasize things that need to be emphasized.

Looking at these contributions one might come to a hurried conclusion that color motion pictures are more effective in communication than black and white films. Vandermeer conducted a study to test, in his words, "the validity of three common reasons for using color in selected instructional films."92

1. Color may be an important cue in learning what the film is intended to teach

2. Contrasting colors in graphic presentations could be used for emphasis to make certain things stand out

3. Color may be pleasing to the learner, and its aesthetic appeal may have an indirect effect on promoting greater learning, even though the color itself provides neither important meaningful cues nor emphasis.93

His experiment consisted of two separate parts. In the first part five films were used: Maps are Fun, How Man Made Day, Rivers of the Pacific Slope, Snakes, and Sulphur and its Compounds. The first

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93 Ibid.
group saw the colored versions and the second group saw the black and white versions. Tests were administered immediately after the showing of each film. Delayed tests were administered six weeks after the final film.

In the second part of the experiment, the last four films were used. Odd-numbered students saw colored versions of the first and the third, and black and white versions of the second and the fourth. Even-numbered students saw black and white versions of the first and the third, and colored versions of the second and the fourth. Tests were administered immediately after each film.

The results of the experiment validate the following conclusions:

It seems clear that while color in these films appeared to be an important cue, it was not a crucial one, indispensable for learning; other equally relevant cues appear to have contributed to learning to such an extent that in some cases color added little, if anything. Black and white films may be as good as color films in communicating visual cues related to texture, light and dark contrast, shape, and size. Color may, unless more carefully employed, actually operate to reduce the effectiveness of some of these cues by distracting the learner. The absence of color in black and white film may operate to increase the effectiveness of such cues by requiring more attention on the part of the learner to such cues as texture, contrast, shape, and verbal descriptions.94

Discussing Vandermeer's study, Hoban and van Ormer indicated the need for more research in this area:

94 Ibid.
There is some evidence that, under certain conditions, the color medium increases the effectiveness of the visual presentation, and, perhaps reinforces the effect of the picture. By this same line of reasoning, it is conceivable that color may distract attention from other important learning cues, for example, material in the commentary or other visual cues in the picture. In the final analysis, it is probably a question of determining what are the crucial cues for learning. If color provides crucial cues in some learning situations then it should be used. Much research remains to be done in this area.95

The unsettled problem of color can be further illustrated by the "interesting reaction of an unsophisticated audience in Northern Rhodesia," quoting Tony Lawman:

It was in this area that I heard from villages both educated and illiterate, that they did not like colour films in which Africans appeared. They said that in colour films the African was shown to be 'very black' when of course, 'everyone knows he is brown.' Others, of an older group, said they did not like colour films because 'they are big lies' -- these films showed everything in pleasing colours but in fact some things were drab, and those that were drab should be seen as such.96

This brings us to an important point: color reproduction is not a perfect identity of reality. This fact is explained by Wagner:

Practically, however, we know that color film, although designed to duplicate the three-color systems of the eye,

cannot adapt itself as the eye does; that it does not 'see' color as the eye sees it. The dyes used in such films are not exact with respect to their color characteristics. They are 'fugitive.' They change with time and temperature. Color films are 'contrasty.' As a result, the color reproduction while it may be similar to the image photographed, is never identical with it. And a proportional loss in fidelity is suffered as the original film is duplicated in printing. The Eastman Kodak Company has compiled an immense amount of research on this problem without arriving at a color film system with theoretically correct sensitivities to different spectrum colors, partly because theoretically perfect dyes do not exist. 97

To summarize, color with its ability to define objects might act as a distractive element or raise unfavorable reactions, as it happened with the African tribe. Whether color can help communicate better is an unanswered problem. Answers given to this question are suggestive: use color when it is a crucial cue. A great deal of research work is needed.

It is important to notice that people accept black and white pictures despite their being less identical to reality than color pictures. In a black and white film all colors are reduced to different degrees of gray. Nevertheless, many excellent motion pictures are in black and white. Arnheim reasoned our acceptance of the black and white picture as a substitute for reality on the basis of what he called "partial illusion." He explained the idea of "partial illusion" as follows:

The impression is strong, though the representation is anything but complete. The reason it suffices is that in real life we by no means grasp every detail. If we observe the expression on somebody's face, we are far from being able to say whether he had blue eyes or brown, whether he was wearing a hat or not, and so on. That is to say, in real life we are satisfied to take in essentials, they give us all that we need to know. Hence if those essentials are reproduced we are content and obtain a complete impression that is all the more artistic for being so strongly concentrated. Similarly, in film or theatre, so long as the essentials of any event are shown, the illusion takes place. So long as the people on the screen behave like human beings and have human experiences, it is not necessary for us to have them before us as substantial living beings nor to see them occupy actual space - they are real enough as they are.98

The essential elements we experience in life serve as cues in the picture. If a picture, or a visual symbol in general, contains such cues, we get meaning out of it. That is why simple sketches like these evoke meanings of anger, delight, sadness, etc.

In sum, what we really see in a motion picture are instantaneous stationary pictures. By virtue of the visual primacy phenomena,

98 Arnheim, op. cit., p. 29.
the picture is the most powerful communicational element in the basic unit of the motion picture language.

Pictures are not a mechanical reproduction of reality. Through manipulation of the camera and understanding the medium's limitations the film-maker can achieve effects that can not be evoked from reality.

Color can define objects, add realism, and psychologically affect the spectator. At the same time color might act as a distractive element, or confuse the audience.

The problem of when and how to use color is unsettled. However, present evidence suggests the use of color when it is an essential cue.

So far, we have been discussing the first element i.e., picture, in the basic unit of the motion picture. Now, we move to the other elements grouped under sound.

Sound

Silent films depended entirely on visual expressiveness in communication. The spoken word was replaced by pantomime. However, when words were a necessity, titles were used.

The absence of the spoken words helped to "concentrate the spectator's attention more closely on the visible aspect of behavior, and thus the whole event draws particular interest to itself."99

99Arnheim, op. cit., p. 110.
Arnheim argued the advantage of such a technique, stating "by merely robbing the real event of something - the sound - the appeal of such an episode is greatly heightened." He gave as an example Chaplin's technique, he says:

He does not say that he is pleased that some pretty girls are coming to see him, but performs the silent dance, in which two bread rolls stuck on forks act as dancing feet on the table (The Gold Rush). He does not argue, he fights. He avows his love by smiling, swinging his shoulders, and moving his hat. When he is sorry for a poor girl, he stuffs money into her handbag etc.

Visual interpretations were used instead of the audible sound effects. In the film, The Docks of New York a revolver shot is interpreted by the rising of a flock of birds. Arnheim believes that -

Such an effect is not just a contrivance on the part of a director to deal with the evil of silence by using an indirect visual method of explaining to the audience that there has been a bang. On the contrary, a positive artistic effect results from the paraphrase -- the spectator does not simply infer that a shot has been fired, but he actually sees something of the quality of the noise -- the suddenness, the abruptness of the rising birds, give visually the exact quality that the shot possesses acoustically.

The same technique was followed to illustrate the presence and effect of music. In Feyder's film Les Nouveaux Messieurs, Arnheim reports -

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100 Ibid., p. 111.
102 Ibid., p. 107.
... a political meeting becomes very uproarious, and in order to calm the rising emotions Suzanne puts a coin into a mechanical piano. Immediately the hall is lit up by hundreds of electric bulbs, and now the music chimes in with the agitative speech. The music is not heard: it is a silent film. But Feyder shows the audience excitedly listening to the speaker; and suddenly the faces soften and relax; all the heads begin quite gently to sway in time to the music. The rhythm grows more pronounced until at last the spirit of the dance has seized them all; and they swing their bodies gaily from side to side as if to an unheard word of command. The speaker has to give way to the music ... by this indirect method, ... the important part of this music - its rhythm, its power to unite and 'move' men - is conspicuously brought out.\textsuperscript{103}

"Thus," Arnheim says, "silent film derives definite artistic potentialities from its silence ... instead of giving the (audible) occurrence ... it gives only some of its telling characteristics, and thereby shapes and interprets it."\textsuperscript{104}

In the first stages of producing sound films, the sound was used intelligently. Manvell described the immature use of sound in sound films, then, as follows:

With the camera trained steadily on the singing fool, the music went out and cutting could be and was forgotten. Whole plays were transferred to the screen, with the camera following the dialogue around the set like a lap-dog terrified of being left alone. It was a depressing return to adolescence and cheap effect. The equipment was expensive, and by God it must be used, and used it was, until the directors and the public wearied of it, and decided that, after all, you went to see and not merely to hear a film.\textsuperscript{105}

\begin{flushright}
\textsuperscript{103} Ibid., p. 108. \\
\textsuperscript{104} Ibid., p. 109. \\
\end{flushright}
In time the advantages and limitations of this technical gift - the sound - were realized. It was recognized that by introducing sound "the break-up of the illusion caused by the titles flashed on the screen for as long as it took the slowest reader to spell them out could now be forgotten. The film could speak for itself." 106

In 1933, Arnheim noted the role of sound in talking pictures:

Sound film -- at any rate real sound film -- is not a verbal masterpiece supplemented by pictures, but a homogeneous creation of word and picture which cannot be split up into parts that have any meaning separately. 107

The integrated function of picture and sound is expressed in the writings of contemporary scholars. Cushman answers the question, How does one use sound? by simply saying "... by making it so much a part of the picture that it isn't a picture at all without it." 108

In the same article he explains the proper use of sound: "Sound properly used, can aid in establishing a scene or in setting a locale. It can establish or accent a mood. It can strengthen continuity, heighten a dramatic point and generally speed up action." 109

106 Ibid., p. 53.
107 Quoted by Manvell, ibid., p. 53.
109 Ibid.
Hoban indicates the significance of sound in a motion picture: "The sound track not only adds to the realism of the motion picture as a medium of communication but increases its educational role from the simple presentation of visual data to the presentation and interpretation of these data."^110

Hoban made clear the power of accompanying the pictures by suitable words, "The presentation of the data in the pictures and the simultaneous interpretation of these data in the commentary have a tremendous psychological power that, in effect, frees the audience to accept the interpretation of the data set forth in the film."^111

Thus, sound in motion pictures can heighten reality, interpret the picture, accent a mood, and bridge the gaps in pictorial continuity. However, according to the principle of visual primacy the movie maker should strive to make the pictures tell the story, as White said:

The film writer should strive to offer a smooth, natural sequence of pictures that gets its message across in an interesting, intelligible manner even without the sound track. The picture should not merely illustrate a lecture, rather, the spoken word, the sound effects, and the music should reinforce a pictorial communication that can stand alone."^112


^111Ibid., p. 36.

Sound in motion picture is composed of three elements:

1. verbal language,
2. music,
3. sound effects.

**Verbal Language**

To communicate effectively, the verbal track should be easily understood. The comprehension time of the screen is limited, thus words should be simple and accurate in conveying the intended meaning.

Concerning titles, Pudvokin said:

> Superfluous words that may enhance the literary beauty of the sentence but will complicate its rapid comprehension are not permissible. The film spectator has no time to savour words. The title must get to the spectator quickly.  

Three factors should be considered in judging the suitability of a verbal track: vocabulary level, sentence length, and rate of delivery.

The vocabulary level should be suitable for the spectators' level, and sentences, in general, should tend to be short. This principle is advocated by many motion picture students. For example, on the basis of his experiment on "Vocabulary and Comprehension Difficulties of Sound Motion Pictures," Park indicated the following three important points:

1. "... the simpler the vocabulary, the greater the gains in knowledge of content."  

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2) "Pupils made the most gain in knowledge of content of those films with the shortest average sentence length." 115

3) "If it is desired to teach a word, the word should be defined and illustrated." 116

Concerning the "rate of delivery," i.e., the number of words per minute, Wagner 117 recommends a rate of verbal delivery for educational films of between 100 to 130 words per minute.

Sound Effects

Relevant sound effects can improve motion picture communication. Neu 118 reports that the least amount of learning came from the film version with irrelevant sound effects.

Sound effects can add realism, and accent moods. Wagner indicated a third vital use of sound effects saying, "... a sound effect can become a key signal, carrying with it the principal sense of the scene." 119

Jones discussed the possibility of finding "abstract sounds and abstract images that are sympathetic." He says:

115 Ibid.
116 Ibid.
118 Neu, op. cit., p. 76.
Here are two abstract shapes. And here are two abstract words, 'tackety' and 'goloomb.' The words become sounds when spoken, but they have no specific meanings. Yet it is simple to match the abstract words and sounds to the abstract shapes. The angular shape is obviously 'tackety' and the curved one 'goloomb.'

Data available on the function of sound effects in film communication are very meager, but it seems reasonable to assume that the intelligent use of "sound effects" can help communicate better the film's message.

Music

Like the sound effects, the unavailability of data on the function of music in motion picture communication is striking. Wagner reports that, "Nowhere in studies relating to instructional film production is evidence so lacking and weak as it is with

\[120\text{Jones, op. cit.}\]
regard to the use of music in films."^{121} In another place he says,

It is admittedly difficult to estimate with any reliability the function of music, . . ., in terms of educational film. The addition of music to teaching films may not add informational content, but we need to know more about the subliminal effects of such music and how they may be achieved if desirable.\(^{122}\)

Among the writings of motion picture scholars, one can realize the significant role of music in film communication. In discussing the place of music in film, Kendall indicated the ability of music to communicate non-verbal meanings, he says,

Music is a symbolic form. It articulates concepts frequently difficult to express in language or in photographs. It symbolizes moods and feelings, emotions and tensions. The fact that we cannot always name the mood, emotion, or tension conveyed by music is in itself evidence of the symbolic character of music, and its ability to communicate meanings which are not verbal.\(^{123}\)

Hoban recognized two values for using music in instructional films: "Music -- is used -- to create moods and to give an emotional tone to both pictures and words."\(^{124}\)

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\(^{121}\) Wagner, "Design in . . ." \textit{op. cit.}, p. 198.

\(^{122}\) \textit{Ibid.}, p. 189.


\(^{124}\) Hoban, \textit{op. cit.}, p. 33.
Two uses of music in educational films were indicated by Wagner: (1) coloristic music and (2) music that serves as the principal cue.

By "coloristic music" he meant music that is "generally intended to be subordinate to the visual and verbal elements in the picture. It is supposed to be subliminal in effect. It is designed, as Schaindlin put it, to be 'felt rather than heard.'" 125

In using music that serves as the principal cue, he suggests that "more room must be made for this music by the elimination of dialogue and by subduing the visual impact." 126

Pictures, verbal language, sound effects, and music are symbols that are combined together giving as a resultant the basic unit of the motion picture language, in other words, the motion picture vocabulary. This vocabulary is arranged according to the peculiar syntax of the motion picture language. This brings us to the second part of this chapter.

125 Wagner, "Design in . . ." op. cit., p. 189.
126 Ibid., p. 191.
PART II - Motion Picture Syntax

By "motion picture syntax" we mean: "construction or use of frames in a sequence." Frames that have a pictorial unity form a shot or a scene. Scenes or shots are joined together to form a sequence. Sequence is an episodic portion of a film characterized by an inherent unity.

Shots, as well as sequences, may be joined together by what we call optical effects, fades, dissolves, wipes.

Fade-in and fade-out

By "fade-in" meant the gradual appearance of the picture on the screen, and by "fade-out" is meant the gradual disappearance of the on-screen picture.

Arnheim gives two uses for fade-in and fade-out:

Fading in and fading out can be used to show people's subjective perception; for instance, when a person is waking up or falling asleep. But above all, it is a good means of keeping one scene distinct from the next; for since shots that follow immediately on one another usually appear as part of an unbroken time sequence, it is often not easy to show that an episode has come to an end, and that the scene of action is changing. If, however, the scene is faded out the spectator feels that there is a break as though a curtain had dropped, and when something else fades in a new scene is expected. Arnheim, op. cit., pp. 118-119.
Pudvokin stresses the use of fades to begin or to end a sequence, especially when the sequence has been carried out in a retarded tempo. In his words,

The fade has mainly a rhythmic significance. The slow withdrawal of the picture from the view field of the spectator corresponds, in contradistinction to its usual sudden breaking-off, to the slow withdrawal of the spectator from the scene. One usually ends a sequence with a fade-out, and especially when the scene itself has been carried out in retarded tempo. For example: a man exhaustedly approaches an armchair, lowers himself in it, drops his head in his hands - pause - slowly the shutter closes.

The fade-in is, on the contrary, equivalent to the purposeful introduction of the spectator to a new environment and new action. It is used to begin a film, or a separate sequence. In determining the general rhythm of the action one should indicate the speed of the fade: quick, slow.\footnote{Pudvokin, \textit{op. cit.}, pp. 35-6.}

Thus fades are used to begin and to end shots or sequences. They might be used "to show people's subjective perception." Fade-out is especially recommended for ending a sequence that "has been carried out in a retarded tempo."

The superimposing of a fade-in over a fade-out results in a "dissolve" or "lap dissolve." On the screen one image will gradually appear through the other.
Dissolve

Pudvokin considers the "mix" - dissolve - as the method for transition from one section of the film to another. Mix - or dissolve - is often used to represent the birth of an idea from another. To quote him:

The transition from one section of the film to another is effected not by the usual cut, but gradually - that is to say, one image disappears slowly and another appears in its place. This method has also a mainly rhythmic significance. Mixes involve a slow rhythm. Often they are used in the representation of a flashback, as if imitating the birth of one idea from another. 129

Spottiswoode gives "three legitimate uses" of dissolve. He says:

The dissolve, by slurring over the bridge from shot to shot, markedly reduces any cutting-tone which might otherwise be produced. If, therefore, it is necessary to treat a subject with solemnity, and at the same time divide it into short shots ..., the dissolve will provide a solution. If, again, it is necessary to track several miles to an object (say, a house among the hills) which was just discernible in the first shot, a series of dissolving shots taken from fixed points along the line joining the first to the last shot of the series will admirably produce the required effect ... Thirdly, if it is required to emphasize the passage of time, it is possible to dissolve through similar objects in scenes which otherwise contrast. (In A Nous la Liberte, the progress of the successful exconvict from a small gramophone shop upwards to the management of a vast gramophone factory was displayed by dissolving from one turntable to another, each revolving in a more resplendent machine than its predecessor and exhibited in a more magnificent show-room.) 130

129 Pudvokin, op. cit., p. 37.
130 Spottiswoode, op. cit., pp. 119-120.
Arnheim says that dissolve serves like fade-in and fade-out, that is to say, "to mark a break between two scenes."
"Dissolve," he says, "destroys the illusion of an unbroken passage of time and of one fixed place." Since dissolve is "a visible relative displacement of the coordinates of time (or space)," it is impossible to use dissolve within a scene in which "the unities of space and time are unbroken."

Therefore, dissolve is a means by which (1) we present the birth of an idea from another; (2) we break the illusion of the continuous passage of time and of fixed place; (3) we treat a subject with solidarity, and at the same time divide it into short shots; (4) we build-in the gaps between shots taken for the object from different points of view.

Thoughtfulness is needed in the use of dissolve since many variables are involved in its use. Problems such as the length of the preceding and succeeding shots, the relative intensity of each, and the amount of contrast or similarity between them are vitally significant in using the dissolve.

Wipes

The third type of optical effects is known as wipe. Sobel suggests the function of wipe as "an optical device used to represent simultaneous action ... The dissolve usually infers succeeding action, whereas the wipe infers contemporary action." However,

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131 Arnheim, op. cit., pp. 119-120.
wipes can serve to carry the action of the story. For example, if a man leaves a room and enters another in a completely different locality, a sense of continuous action can be carried by a wipe moving in the same direction as the action.

Many types of wipes are used. Some of these are illustrated in Figure 14 on page 75. The simplified type of wipe is done by masking one scene and replacing another as a line gradually moves across the field revealing one picture and concealing another.

Sobel reports that, "Trailers and television spots usually employ the more bizarre wipes, usually with sharp edges, which are calculated to give impact. In features, however, the principal types used are soft, the common types being right to left, left to right, diagonal and vertical."133

Although wipes can be used to direct the spectator's attention, yet it has a disadvantage. This disadvantage, mainly lies in the fact that the wipe is usually obvious, and as Sherwood says "any effect that is obvious is not a good effect, because the moment the audience becomes conscious of the transition created by an effect, that effect begins to detract from the intent of the story and from the intent of the effect."134

133 Ibid.

Figure 14: Different Patterns of Wipes
The limitation of the wipe is explained by Spottiswoode as follows:

... the wipe ... occupies a perceptible period of time. In this it resembles the dissolve, but, unlike the dissolve, it draws attention to the surface on which it appears; it makes the screen resemble the upper side of a calendar, a solid object from which pictures may be successfully torn, the process of tearing being visible. By thus drawing attention to the reality of the screen, the wipe tends in part to distract the mind from the projected images, and in part to 'materialize' them; so that not only is the contrast of transference rendered less acute, but the reality of the shots in themselves is impaired. The spectator is normally able to enter into the thoughts and feelings of persons represented in screen images, which become living, even though ephemeral, entities; once let them dwindle to a series of pictures piled up into calendar form, and they will appear as thin and insubstantial as the books of displaced drawings which flicked rapidly over, give children the illusion of life.\textsuperscript{135}

According to this limitation "legitimate uses of wipes are rare." Some films use cuts only and achieve a great effect, quoting Spottiswoode, "For Le Chapeau de Paille d'Italie and The Battleship Potemkin the cut proved sufficient."\textsuperscript{136} In a more recent film The Defiant Ones cuts were often used without any loss in following the action.

Tilting of the camera is sometimes used to link between two scenes. For example, in the film The Enemy Below, a scene is taken

\textsuperscript{135}Spottiswoode, \textit{op. cit.}, p. 121.

\textsuperscript{136}\textit{Ibid.}, p. 123.
of a sailor while he is fishing. The camera follows the fishing line vertically (tilting) and goes beyond the end of the line to show a submarine standing still at the bottom of the sea. Then the interior of the submarine is shown. A similar incident showing how camera tilting is used to link between scenes is reported by Spottiswoode, he says:

If it is desired to show that two groups of people, not in sight of one another, are yet in close proximity, the following method, illustrated from The Road of Life, is sometimes applicable. A gang of rowdy boys was discovered about to make an attack on a person not in view, the camera tilting down upon the boys across the pillared wall of a large building. There was then a cut to a similar wall, and a similar tilt took place until an old woman selling apples was found sitting by the pavement. The building was thus used to link unmistakably two sets of persons who might otherwise, until the attack took place, have seemed entirely unconnected.\(^{137}\)

All the different methods of linking between scenes and sequences are under the command of the film maker. The process of constructing the film from shots and sequences is known as "editing." Like literary writers every film-maker has his own style in constructing the film. This brings us to the third and last part of this chapter.

\(^{137}\) Ibid., p. 160.
PART III - Style of Motion Picture Language

In the verbal language, the meaning of a word is affected by its context. Similarly, the meaning of a shot or a scene is affected by adjacent shots. This fact is illustrated by Kuleshov and Pudovkin's experiment. Pudovkin described this experiment as follows:

We took from some film or other several close-ups of the well-known Russian actor Mosjukhin. We chose close-ups which were static and which did not express any feeling at all - quiet close-ups. We joined these close-ups, which were all similar, with other bits of film in three different combinations. In the first combination the close-up of Mosjukhin was immediately followed by a shot of a plate of soup standing on a table. It was obvious and certain that Mosjukhin was looking at this soup. In the second combination the face Mosjukhin was joined to shots showing a coffin in which lay a dead woman. In the third the close-up was followed by a shot of a little girl playing with a funny toy bear. When we showed the three combinations to an audience which had not been let into the secret the result was terrific. The public raved about the acting of the artist. They pointed out the heavy pensiveness of his mood over the forgotten soup, were touched and moved by the deep sorrow with which he looked at the dead woman, and admired the light, happy smile with which he surveyed the girl at play. But we knew that in all three cases the face was exactly the same.138

In a film, each shot adds a "fragment of effect" as Spottiswoode said:

It is the object of the shot to be contributory, not self sufficient. The larger wholes - from whose amalgamation the final film emerges, owe their existence to the multiplicity of the shots which compose them. Each shot therefore adds only a fragment of effect to the total - a fragment which results from its context, its content and its cutting.139

138 Pudovkin, op. cit., p. 140
139 Spottiswoode, op. cit., p. 217.
Juxtaposing two shots might evoke a meaning that is not inherent in either the shots if viewed separately, e.g., Kuleshov's experiment. This method of joining shots is called by Spottiswoode dynamic cutting. He explained dynamic cutting as "a type of cutting which by the juxtaposition of contrasting shots or sequences, generates ideas in the mind of the spectator which were not latent in any of the synthesizing elements of the film."  

Arranging the shots and the sequences to evoke particular meanings and feelings is known as "editing," which is the style of the film-maker.

Editing is defined by the Journal of the University Film Producers Association as "The process of assembling, arranging and trimming film, both picture and sound, to the best advantage for the purpose at hand." The same journal uses "cutting" as a synonym for editing.

Manvell considers editing "as the art of putting the film together shot by shot from the celluloid strips themselves."  

Fredrick Smith speaks of two aspects in editing: physical

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141 Journal of the University Film Producers Association, *op. cit.*, p. 8.


editing and creative editing. By physical editing he means all the technical steps followed in the process of editing. By creative editing he implies the artistic selection of the best shots that affect the audience.

The Russian and the Europeans called the process of building the film from different shots as "montage." Editing and montage are sometimes used as synonyms. However, the term montage is often used to denote the artistic construction of the film.

The significance of montage - i.e., the artistic construction of the film - in motion picture communication has been pointed out by contemporary writers. Spottiswoode wrote, "One of the most important functions of montage is to stimulate general conceptions which could not have been conveyed by purely visual means... humble can only be exemplified by an instance of humility."\textsuperscript{144}

Sobel explains the "most fascinating aspect" of the montage as -

\begin{quote}
... the ability to burst the bonds of time and space and even reason, and still to remain entirely credible. When we see the picture of a bullet superimposed over a shot of a turning globe which may even be combined with that of a ship at sea with the waves breaking over its bow, we do not pause to question this violation of time and space.\textsuperscript{145}
\end{quote}

Wagner believes that, "... when skillfully done, montage

\textsuperscript{144}Spottiswoode, Grammar of the Film, \textit{op. cit.}, p. 223.

\textsuperscript{145}Sobel, \textit{op. cit.}
and special effects make the motion picture a truly unique medium of communication." He indicates the necessity of considering "montage," in the light of the audience for whom the effect is supposed to carry symbolic meaning.

Summary

Language is not primarily verbal. It is any "systematic symbolism, in a more or less transferred sense." Many types of languages exist: language of music, picture, verbal, object etc. These types are classified under two categories: discursive and non-discursive. A discursive language has basic units and a syntax. According to this classification motion picture is a discursive language. Its basic units are the frames that are composed from picture, words, music and sound effects.

Motion picture syntax has been defined as: "construction and use of frames in a sequence." The process of assembling the film is known as editing. Editing is the style of the film-maker.

This unique type of language - i.e., the motion picture language - needs methods of translation different from those of the verbal language.

In the following chapter scholarly articles on film translation will be presented to indicate the theory and practice of film translation as held by film translators.

\[1\] Wagner, "Design in . . ." op. cit., p. 220.
CHAPTER III

REVIEW OF LITERATURE ON FILM TRANSLATION

This chapter reviews scholarly articles on film translation to indicate the theory and practice of film translation as held by film translators.

Scholarly literature on the art of film translation is meager. Although there is wide-spread exchange of films between different countries, the articles written on film translation do not exceed a dozen. In addition the writer has been unable to discover a single research study in this area.

One asks: Why is there such a great shortage? To answer this question the writer would like to refer to Chapter V, Principles of Translating Printed Materials, in which it is noted that the small amount of critical attention which has been given to the "art of translation" is not in keeping with the clear importance of translations. The reason for this meager attention is that translators take their art for granted and seem to disregard the laying down of specific rules explaining the techniques followed by them in their work. If this is true in the art of translating the verbal language, an old medium of communication, then it is little wonder that few articles exist on translation of film, a new medium of communication.

The problems of film translation crystallized after the advent of sound. Before talking pictures, translation of silent
films was considered an easy task. It was assumed that the picture was internationally understood, and that titles could be easily translated. Kiesling reported that, "During the period of the silent film the foreign business of film companies flourished, for there were no language barriers. Subtitles were easily translated into a score of languages. The coming of sound pictures upset this."^1

Today, three methods of translating films are discussed by scholars of film translation: (1) subtitling, (2) mixing a narration with the original track, (3) producing a foreign language sound track to match the original lip movements. Each method will be discussed in turn.

Subtitling

Many theatrical films are translated by subtitling, i.e., flashing on the bottom of the screen the main part of the dialogue. Mauro Zambto reported that this method has proven to be unacceptable to mass audience in Italy saying; "...reading distracted their attention from the action by adding an unnecessary strain."^2

In this method only a part of the verbal track is translated. In entertainment films the part translated helps the audience get

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^1Barrett C. Kiesling, Talking Pictures, How They are Made - How to Appreciate Them, Johnson Publishing Company, 1937, p. 266.

key meanings from the film. However, in educational films where every line is essential for understanding the film's content subtitling is inadequate as Max Kosarin has so clearly indicated:

Superimposed dialogue titles at best can give only a small percentage of the actual dialogue. While this may be sufficient to impart the plot and general idea of the average entertainment film, it is inadequate in a training film, since it would be most ineffectual and even confusing to make a foreign language version in which a small percentage of the message was being taught.3

Mixing a Narration with the Original Sound Track

In mixing a narration with the original sound track the foreign verbal sound track is translated and read by a native narrator. Thus, in a film translated by this method, sound effects and music used in the original film are retained, and the verbal content is presented as a narration.

If the original sound track carries a musical score and sound effects, and a complete rescoring job is not economically justified the following technique is used. In this technique4 the original track is recorded at full level until the native language narrator is about to speak. The original track is then faded down,

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but not out, and is returned to normal level whenever a pause occurs in the translator's narration. Thus, in a film so translated, there are two verbal tracks: foreign and native. However, the native verbal track, which is heard at a higher level than the foreign verbal track, dominates the still intelligible foreign narration. This technique makes it possible to check the translation at any time.

Mixing the narration with the original sound track is usually used in translating films of the documentary type. Max Kosarin believes that such films present no special problems. Concerning military training films, he said, "The narration film presents no special or military problems. The text is translated and narrated in the foreign language, . . ."  

Zambuto advocates the use of this method in translating documentary films. However, he denies its value in translating dramatic films. He says, "As for the narrators, although they can be logical additions, can even be assets when the film subject is documentary in nature, experience proved them detrimental to an already filmed light comedy or an intense drama."  

As to training films where dialogue is used, Max Kosarin

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5 Kosarin, op. cit., pp. 419-420.

6 Zambuto, op. cit.
believes that "producing a foreign language sound track to match the original lip movements," is the only satisfactory method for translating training films. He says, "The technique of lip synchronization, therefore, is the only method in which the entire text can be translated and incorporated in a foreign-language version, outside of a complete reshooting of a film production in the foreign language, using foreign actors."\(^7\)

Producing a Native Language Sound Track to Match the Original Lip Movements

In producing a native language sound track to match the original lip movements, the original dialogue is reproduced in the native language. An ideal translation of a film by this method would be to create the illusion in the native audience that the foreign actors were speaking in the language of the audience.

Zambuto advocates (as did Kosarin as noted just above) the use of this method in translating theatrical films saying: "It would certainly provide the best conceivable solution if it could succeed in creating the impression that the picture was originally recorded in the language commonly understood by the audience."\(^8\) He reports that Italian audiences enjoy foreign films "dubbed" into

\(^7\) Kosarin, *op. cit.*, p. 420.

\(^8\) Zambuto, *op. cit.*
Italian, and that these films compete successfully with good native films.

Zambuto thinks that dubbing is the method to be followed in translating entertainment films. He based this idea on the assumption that the final aim of industry is that of providing the audience with maximum possible entertainment, and this can be best achieved through dubbing.

In answering the question: What constitutes good dubbing? Zambuto says, "The sound track should sound like what the audience expects to hear in conjunction with the onscreen action over such a wide field of characteristics as ... lip synchronization, voice quality, emotional content, etc."\(^9\)

A number of problems rise in achieving good dubbing. Zambuto grouped these problems under two headings: a) technico-artistic, and (b) technical and artistic. By "technico-artistic" problems he means those problems that "concern achieving the best possible lip synchronization."\(^10\) And, by "artistic" problems he means those problems that are in the way of "achieving a delivery in the lines that will sound natural and convey the required emotions to the audience."\(^11\)

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\(^9\)Zambuto, op. cit.

\(^10\)Ibid.

\(^11\)Ibid.
Lip synchronization is defined by Kosarin as:

... a device to communicate the dialogue of the original sound motion picture in the language to which the picture has been adapted by creating an illusion, simultaneously auditory and visual, that a previously photographed and recorded actor is speaking in the adapted language. To create the maximum illusion and to sustain it in the mind of the viewer, it is imperative not only that the synchronization of the spoken phrase be maintained, but also that the dramatic re-creation of the sequence be achieved.\textsuperscript{12}

To maintain lip synchronization Zambuto indicates that -

1. The script must use words and sentences that will match the length and the lip movements of the original lines.

2. The script must retain the spirit and emotional content of the original.

The simplest way to achieve lip synchronization, says Kosarin, is "... the translation of a phrase or sequence to begin and end precisely at the same instant as the original voice so that the character on the screen will seem to be speaking the part, if not observed too closely."\textsuperscript{13} To achieve complete conversion the translator should select the syllables, in the language

\textsuperscript{12}Max Kosarin, "Methods of Translating Used in Bilingual Films," Jour. Soc. Motion Picture Tel. Eng., Volume 67, No. 3, March 1958, p. 139.

\textsuperscript{13}Ibid.
of rendition to visually match the lip movements of the original spoken groups of words. Kosarin says:

True or complete conversion of dialogue is accomplished by translation employing phraseology and terminology that match exactly the lip movements, not of the words of the original dialogue, but the phrases and sequences of phrases, made up of the syllables in those words. The translator constructs his new dialogue to match visually, in the lip movements, the original spoken groups of words. Actually, he is thinking of syllables or groups of syllables, rather than the words themselves.  

Conveying the emotional tone of the original, and preserving the tempo are as essential as maintaining the lip synchronization in dubbing. On this point Zambuto and Kosarin agree. As has been indicated before, Zambuto says that the translation must retain the spirit and the emotional content of the original.

Kosarin considers the conveying of the emotional tone and the tempo of the original as the "artistic" aspect of lip synchronization. Its importance is explained by him as follows:

The careful casting of the dubbers, or voice actors, is very important as a factor in achieving perfection in lip synchronization. The voice actor should be cast as closely as possible to the original actor on the screen, with respect to voice quality, tempo of speech and perhaps even characteristics of facial expression which do affect the articulation of speech sounds. This care, or the lack of it, in the choice of the voice actor, to match the screen image in these respects, can spell the success or failure of the lip

Ibid.
synchronization effort, regardless of well-translated and well-matched dialogue.15

The process of dubbing is explained by Zambuto in the following:

The film is cut into short sequences. The top and bottom ends are cemented together to form a loop of film. The sequence can be projected any number of times with no time lost to reload the projector. The loop is shown to the actors during the dubbing. They stand in front of the screen and start rehearsing their lines. When they have mastered the rhythm of the original performance the sound is cut off and switched over to ear-phones. The actors go on rehearsing to improve synchronization and performance. They look at the screen and at the same time listen to the original track through the ear-phones. When the director is satisfied the sequence is recorded.16

The principles of producing a foreign language sound track to match the original lip movements may be summarized as follows:

1. The length of a certain scene, and the lip movements are important factors in translating the verbal sound track. The syllables of the words in the language of rendition should require lip movements similar to the original. The aim is to create the illusion that the original actor is speaking in the language of rendition.

2. The voice actor should read the translated lines in

15 Ibid., p. 140.
16 Zambuto, op. cit.
a way to reproduce the emotional tone, and the tempo of the original actor.

Translation of the verbal track in this method is not a literal translation, it is rather an adaptation; as Zambuto says concerning theatrical films,

... the script should not be a mere translation but rather an adaptation; for instance... a joke which sounds uproariously funny to an American audience may mean absolutely nothing to an Italian audience, so the scriptor must devise another joke which will sound just as funny to the Italians and will still be pertinent to the action.17

Regarding training films, Kosarin indicated the concept of adapting the verbal track as follows:

The translation of the original scripts requires native experts in each particular language who are familiar with the military and technical phraseology as well as the colloquialisms of the particular foreign army... It is important to adapt the film's text so that no resentment is aroused in the foreign country, because of some sequence that might be misinterpreted or appear to be an extravagant claim or boast on the part of the U.S. Army.18

So far, we have discussed the different methods for translating films. With technological advancement, technical problems involved in translating films are minimized. Discussing some of these

17 Ibid.
18 Kosarin, "Preparation of Foreign...", op. cit.
A new specially built unit 16 mm photomagnetic projector and photomagnetic duplicator is now used in translating training films at the Naval Photographic Center. With this equipment films can be translated with considerable savings in time and materials. To appreciate this advantage, the following is a comparison between the conventional way of dubbing and the new procedure using the photomagnetic projector and photomagnetic duplicator unit.

In the conventional method of dubbing, the following steps are followed. Using the picture as a master control and with respect to a scene length, (1) sound effects are recorded on a first track, (2) music is recorded on a second track, (3) the narrative or dialogue portion is recorded on a third track, and then (4) the three sound-tracks are recorded synchronously with the picture. In using the photomagnetic projector and photomagnetic duplicator unit, sound effects and music scores are combined and printed on the film as a photographic sound-track. But half of the normal sound-track space is striped with a magnetic sensitive iron oxide on which the translated narration can be recorded. Such a sound-track could be reproduced by a projector capable of reproducing photographic sound track and magnetic sound tracks simultaneously; or by combining the sound on the photographic track with the translated narration in a final mixing.
operation onto the magnetic half-track on the release print.

Greenfield explained this operation:

Since with this machine the photographic half-track can be reproduced simultaneously while recording is taking place on the adjacent magnetic half-track, the photo-track music and effects can be recorded over to the magnetic track, along with the new narration, using regular mixing practices. 20

From this comparison it is clear that the conventional method costs more and takes more time than the new method.

With the invention of the 16 mm magnetic-recording projectors 21, 22 the technical problems in translating films are reduced: no advanced technical skill is needed to operate this projector. With this equipment one can record, reproduce, and erase magnetic sound tracks, as well as reproduce photographic sound track.

From the preceding discussion, it is clear that the art of film translation is new. Few articles exist even relating to the entertainment film and nothing has been said regarding the translation of educational films. Among these few articles there is a sort of a general agreement on an implied assumption: to make a foreign film intelligible to native audience you have to adapt the verbal

20 Greenfield, op. cit.


22 John A. Rodgers, "Projector for 16 mm Optical and Magnetic Sound (Kodascope Pageant)," Jour. Soc. Motion Picture and Tel. Eng. 61:642-651, Nov. 1953.
sound track. The guiding rules in adapting the verbal sound track are the maintenance of lip synchronization; and the conveying of meanings, emotional tone and tempo of the original.

Whether these principles of film translation are adequate or not in translating educational films is the problem of study in the sixth and the seventh chapters. In Chapter IV, Analysis of Eight Educational Films Translated from English into Arabic, we study the methods followed in translating eight educational films from English into Arabic.
CHAPTER IV
ANALYSIS OF EIGHT EDUCATIONAL FILMS
TRANSLATED FROM ENGLISH INTO ARABIC

Since literature on the theory and practice of film translation is meager, an analysis of eight educational films translated from English into Arabic will be made to throw more light on the theory of film translation as conceived by film translators. This analysis will also serve as a background for our future discussion on the principles of adapting educational film.

The films selected for this analysis are educational films, i.e., films produced for classroom use. Below is a brief description of the content of each film.

1. Alcohol and the Human Body
Shows the immediate effects on the body and organs of the ethyl alcohol contained in beer, wine and liquor. Suggests methods of treating alcoholism.

2. Body Defenses Against Disease
Explains the three lines of defense - skin, phagocytic cells and lymphatics, and the blood, including a section on immunology, microphotography of phagocytosis. Also includes: application of defense mechanism in specific cases; action of liver and spleen; types of antibodies and their effects.

3. Care of the Skin
Demonstrates the good habits of skin hygiene which every child should form. Portrays children as they prepare for bed, showing the proper way to wash hands and face, and to bathe. Common skin ailments are illustrated. Animated drawings describe the structure of the skin and explain why soap is necessary for cleanliness.

Educational Film Guide.
4. The Ears and Hearing

Describes the physiology of the human ear by means of graphic animated drawings and close-up photography of the ear as it is functioning. Portrays accurately how the parts of the ear operate and records some of the important kinds of sounds in our environment. Explains three common causes of impaired hearing and demonstrates how a hearing aid is used.

5. The Eyes and Their Care

Treats in detail the physiology and hygiene of the eye. Animated drawings clarify structure and function. Explains learning to judge distance, eye movements, light receptors, field of vision, night blindness, double vision, near and far-sightedness, infections, and protection of the eyes.

6. Endocrine Glands

By means of diagrammatic drawings and experiments on a goat, the film points out the effects of improper functioning of the glands, the causes and remedies of faulty glandular actions.

7. Helping the Child to Face the Don't's (sic)*

Reveals how the young child meets a world of "don't's" and how he reacts by conforming in his own distinctive ways - thus forming his own individual personality. Classifies the "don't's" as (1) those which protect the child from danger, (2) those which restrain him from taking things that belong to others and (3) those which teach him to respect the right of others.

8. Home Nursing

Demonstrates factors involved in the hygienic care of a home patient after instruction from a visiting nurse. Bathing and moving the patient in bed, arranging the bed, and generally making the patient comfortable are shown. Taking of temperature, pulse and respiration rates, and their recording, medications, visits by the doctor and helping the patient gradually to regain strength conclude the presentation.

* The writer does not understand why the possessive form is used in this title but it will be followed in later comments using this title.
These films were produced by the Encyclopedia Britannica Films, Inc., and later translated into Arabic and other foreign languages. The title, date of production, field of study of each film in addition to the foreign versions available are presented on the following page in Table 1.

The writer learned of the existence of the Arabic versions of these films through the Unesco, Motion Picture and Filmstrips, Science Section 1956. Mr. Maurice Mitchell, President of the Encyclopedia Britannica Films, Inc., was kind enough to furnish the Arabic films and the English film guides containing the film's verbal content. Without this help this analysis would have been impossible.

The English versions were secured through the Teaching Aids Laboratory, Ohio State University. Both the English and the Arabic versions of each film were viewed and their sound tracks were recorded on tape. From the recorded Arabic sound track the film's Arabic verbal content was transcribed. Thus, for each version of every film the recorded sound track and the film's verbal content, written on paper, were available for detailed study.

In Chapter II, Motion Picture Language, it was established that the motion picture presents a unique type of language. This unique type of language has basic units and a syntax that differ from those of the verbal language. The basic unit of the motion picture language is composed of four key elements: picture, verbal language, sound effects and music. The syntax of the motion picture language includes the optical effects used to link the various scenes.
<table>
<thead>
<tr>
<th>Film Title</th>
<th>Field Of Study</th>
<th>Date of Production</th>
<th>ForeignVersions Available</th>
<th>Intended Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alcohol and the Human Body</td>
<td>Biology</td>
<td>1949</td>
<td>Arabic, Portuguese</td>
<td>Senior High College, Adults</td>
</tr>
<tr>
<td>2. Body Defenses Against Disease</td>
<td>Physiology</td>
<td>1937</td>
<td>Afrikaans, Arabic Czech, Dutch, French, Greek Norwegian, Spanish Portuguese</td>
<td>Junior High College, Senior High College, College</td>
</tr>
<tr>
<td>3. Care of the Skin</td>
<td>Hygiene</td>
<td>1949</td>
<td>Arabic, Portuguese</td>
<td>Primary Elementary</td>
</tr>
<tr>
<td>4. The Ears and Hearing</td>
<td>Physiology</td>
<td>1950</td>
<td>Arabic, Portuguese</td>
<td>Junior High College, Senior High College, College</td>
</tr>
<tr>
<td>5. Endocrine Glands</td>
<td>Physiology</td>
<td>1939</td>
<td>Arabic, Spanish</td>
<td>Senior High College, College, Adults</td>
</tr>
<tr>
<td>6. The Eyes and Their Care</td>
<td>Hygiene</td>
<td>1941</td>
<td>Afrikaans, Arabic Czech, Dutch, French, Greek Norwegian, Spanish Portuguese</td>
<td>Junior High College, Senior High College, College, Adults</td>
</tr>
</tbody>
</table>

3 Educational Film Guide.
<table>
<thead>
<tr>
<th>Film Title</th>
<th>Field Of Study</th>
<th>Date of Production</th>
<th>Foreign Versions Available</th>
<th>Intended Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Helping the Child to Face the Don't's</td>
<td>Psychology</td>
<td>1948</td>
<td>Arabic</td>
<td>Senior High College, Adults</td>
</tr>
<tr>
<td>8. Home Nursing</td>
<td>Nursing</td>
<td>1941</td>
<td>Afrikaans, Arabic, French, Spanish, Portuguese</td>
<td>Elementary Junior High Senior High</td>
</tr>
</tbody>
</table>
The creative way of linking various scenes gives us the style of the film maker.

To study the methods followed in translating the films under study, it was essential to study what has been done with the basic units, the syntax and the style of every film. For this purpose the check list on pages 101 and 102 was developed. It is divided into three major parts which will be discussed below.

Part One: Basic Unit

This part deals with the four components of the basic unit: (A) Music, (B) Sound Effects, (C) Verbal Language, and (D) Picture.

Music

While viewing the translated version of each film, the writer checked whether music used in the original film was kept, partially kept, omitted, or completely changed. For example, in the original version of Care of the Skin, music was used twice -- in the first thirteen scenes, and in the last four scenes. In the translated version of this film, music was omitted; whereas in the translated version of The Ears and Hearing, music was kept the same as the original.

Sound Effects

In the films used in this study sound effects were either kept unchanged or omitted in the translated versions. For example, in The Ears and Hearing all sound effects were kept unchanged in the translated version; whereas, sound effects used in the English versions
CHECK LIST OF KEY ITEMS IN FILM TRANSLATION

Title:
Characteristics of the Film:

How the Translation Is Done:
I Basic Units
a. Music
   (1) Kept
   (2) Partially kept
   (3) Omitted
   (4) Completely changed
b. Sound Effects
   (1) Kept
   (2) Partially kept
   (3) Omitted
   (4) Completely changed
c. Verbal Language
   (1) Written
      (a) Written Frames
         1) Frames in the language of rendition
         2) Heard in the language of rendition
         3) Left untranslated
      (b) Labels
         1) New frames in the language of rendition
         2) Left untranslated
         3) Heard in the language of rendition
         4) Subtitled
   (2) Spoken
      (a) Narration off the screen
         1) Subtitled
         2) Heard in the language of rendition
         3) Left untranslated
         4) Omitted
      (b) Dialogue
         1) Dialogue in the language of rendition
         2) Narration off the screen heard in the language of rendition
         3) Original dialogue heard at low level plus narration off the screen in the language of rendition
         4) Subtitled
         5) Left untranslated
d. Picture
   (1) Scenes added
   (2) Scenes substituted for other scenes
   (3) Scenes omitted
   (4) Kept without change
II Syntax

Optical Effects are
  a. Changed
  b. Kept the same
  c. Partially changed

III Style

Editing
  a. Changed
  b. Unchanged
  c. Partially changed
of Endocrine Glands and Home Nursing were eliminated in the translated versions.

Verbal Language

The verbal element in motion picture is read and/or heard. In this discussion we shall distinguish between the "written part" and the "spoken part" of the verbal element. Under the written part of the verbal element we include two things: (a) Written frames, i.e., frames that only contain written materials, and (b) Labels. The spoken part of the verbal element encompasses off-screen narration and dialogue.

Five films (Helping the Child to Face the Don't's, Endocrine Glands, Alcohol and the Human Body, Eyes and Their Care, and Body Defenses Against Disease) used written language. Written frames were only used in three films — Helping the Child to Face the Don’t's, Endocrine Glands, and Body Defenses Against Disease. Labels were used in four films — Endocrine Glands, Alcohol and the Human Body, Eyes and Their Care, and Body Defenses Against Disease.

Three methods were followed in dealing with English written frames: (1) they were replaced by the equivalent Arabic written frames, (2) left untranslated, (3) appeared in English while a translation of them was read by the Arabic narrator. To illustrate this point, the three methods will be studied in more detail.
The English version of *Helping the Child To Face the Don'ts* used the following written frame:

We are all different due in part to heredity, but also because we were brought up differently. In our childhood, we reacted to the Don'ts by conforming in our own distinctive ways—thus forming our individual personalities.

In the translated version this written frame was replaced by an Arabic written frame; whereas in the Arabic version of *Endocrine Glands* a written frame used in the original was left untranslated. This frame reads:

**Blood Analysis Chart**

<table>
<thead>
<tr>
<th>Substance</th>
<th>m.g. per 100 cc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>160</td>
</tr>
<tr>
<td>Potassium</td>
<td>200</td>
</tr>
<tr>
<td>Calcium</td>
<td>5</td>
</tr>
<tr>
<td>Magnesium</td>
<td>4</td>
</tr>
<tr>
<td>Chloride</td>
<td>250</td>
</tr>
<tr>
<td>Bicarbonate</td>
<td>140</td>
</tr>
<tr>
<td>Phosphate</td>
<td>3</td>
</tr>
</tbody>
</table>

In the translated version of *Body Defenses Against Disease* the written frame in scene 42 appeared in English during which the narrator read an Arabic translation of the lines. This frame reads in both the versions as follows:

During all these processes the body tissues have been stimulated to produce invisible chemical substances called "antibodies." These antibodies enhance the capacity of the body to resist further attacks by bacteria of the same kind.
English labels were kept in the translated versions of the four films — Endocrine Glands, Alcohol and the Human Body, Eyes and Their Care, and Body Defenses Against Disease. For example, in scene 23 of the Arabic version of Eyes and Their Care the following labels appeared in English:

- Dim Vision
- Colorless Vision
- Side Vision
- Sharp Vision
- Color Vision

A second example comes from the Arabic version of Alcohol and the Human Body, where in the first and second scenes a beaker labeled $\text{C}_2\text{H}_5\text{OH}$ was presented.

As indicated above, labels and written frames compose the written part of the verbal element. Dialogue and off-screen narration form the spoken part of the verbal element of the motion picture.

Five films (Endocrine Glands, Eyes and Their Care, Home Nursing, Body Defenses Against Disease, and Alcohol and the Human Body) used only off-screen narration. Besides the narrator's voice the films Helping the Child to Face the Don't's, and The Ears and Hearing used one-sided dialogue. In the first film we hear a mother speaking to her child but hear no reply, and in the second film a voice of a man is heard over the telephone but the listener does not speak. Only one film, Care of the Skin, used a dialogue between three children in addition to the narrator's voice.
Translation of off-screen narration. In all the films used in this study, the English off-screen narration was translated into Arabic and read by an Arabic narrator. In five films (Endocrine Glands, Helping the Child to Face the Don't's, Eyes and Their Care, The Ears and Hearing, and Body Defenses Against Disease) the whole English text was faithfully translated, and narrated in Arabic. The Arabic verbal sound tracks of these five films are rather a faithful and a complete translation of the English text. However, the other three films (Home Nursing, Alcohol and the Human Body, and Care of the Skin) present three cases where some parts of the English text were left out, reinterpreted, or paraphrased in the Arabic film.

For example, in Home Nursing the narration corresponding to scene 38 is excluded in the Arabic version. This part reads: "June has arranged both tray and patient so that everything is convenient, and Ruth may eat in comfort without danger of spilling the food."

The film Care of the Skin presents a case where some parts of the original text were paraphrased. The English narration corresponding to the three last scenes was paraphrased into Arabic. In Table 2 the original narration and its English translation are presented.

Reinterpretation of some parts of the verbal sound track was made in the film Alcohol and the Human Body. Starting from scene 59 to the end of this film the Arabic text is a reinterpretation of the original text. In the Arabic narration a verse from the Koran that prohibits intoxication was mentioned to strengthen the effect
Table 2
PARAPHRASING THE ORIGINAL NARRATION

<table>
<thead>
<tr>
<th>Scenes</th>
<th>Original Text</th>
<th>An English Translation of the Arabic Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>79. Billy in bed</td>
<td>Billy's fast asleep - well, he should have been asleep long ago. Seems that he has a problem tonight!</td>
<td>79. Bathing immediately before going to bed leads to sound sleep, since cleanliness helps to calm tired nerves.</td>
</tr>
<tr>
<td>80. Billy licking back of hand</td>
<td>Oh, well! Someday, Billy, you'll find out why people wash with soap!</td>
<td>81. Someday, Billy will know why people wash with soap, and the importance of that to their comfort.</td>
</tr>
</tbody>
</table>
of the film. In Table 3 the original text and an English translation of the corresponding Arabic text will be presented.

Translation of dialogue. The dialogue between the three children in Care of the Skin was paraphrased and read by the Arabic narrator. In this instance the action was described by the Arabic narrator. In Table 4, the original dialogue and an English translation of the Arabic narration are presented.

The one-sided dialogue in Helping the Child to Face the Don't's was translated into Arabic, and an Egyptian mother was heard speaking to her child. The translation of the mother's lines was rather an adaptation. In Table 5 the original mother's orders and the literal English translation of the corresponding Arabic orders are presented.

The voice over the telephone in Ears and Hearing is heard in English in the translated version. In the original film, the speaker said, "We had a quiet trip up there to the lake. I thought that was just wonderful." In the Arabic version, the voice was heard in English, yet it was faded out as the Arabic narrator started to speak after the word "thought."

So far, we have been discussing three elements of the basic unit of the motion picture language: music, sound effects, and verbal language. Now, we will move to the fourth element: picture.
Blood pressure and heart tests will reveal the condition of the circulatory system. Physical tests and a study of the patient's history are needed in order to make sure that he is really suffering from alcoholism. Hospitalization for several days may be needed.

During this time he receives a balanced diet and is treated medically, if necessary. Although he may recover physically he must avoid all future use of alcoholic beverages.

It's made clear to him before he leaves the hospital that even a single drink will certainly lead him back again to chronic alcoholism. It's essential that every drinker understand how alcohol affects his body, and face the possibility of someday becoming an alcoholic. And he should realize that alcohol is a potential menace to community safety as well as to his personal health.

Blood pressure and heart tests will reveal the condition of the circulatory system. Many alcoholics are sick too with their liver, heart, and arteriosclerosis. In many cases they get tuberculosis because of neglecting their diet. In other words, they buy illness and pay for its price. Although the alcoholic may recover physically he must avoid all future use of alcoholic beverages.

A single drink will certainly lead him back again to chronic alcoholism, and Allah has forbidden alcoholic beverages in His Glorious Words: "Believers, wine and games of chance, idols and divining arrows, are abominations devised by Satan. Avoid them"...so, avoid intoxication.
<table>
<thead>
<tr>
<th>Scenes</th>
<th>Original Version</th>
<th>English translation of the Arabic Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kitten</td>
<td>Billy: &quot;But Virginia, what's he doing?&quot;</td>
<td>1. This cat is licking its hand, and Tarek asks Lila what</td>
</tr>
<tr>
<td>2. Billy and Virginia</td>
<td>Virginia: &quot;He's washing himself.&quot; Billy: &quot;Why?&quot;</td>
<td>2. she is doing. She answers him that she is washing.</td>
</tr>
<tr>
<td>3. Billy</td>
<td>Virginia: &quot;So he'll be clean.&quot; Billy: &quot;Why?&quot;</td>
<td>3. Then Tarek asks &quot;why.&quot;</td>
</tr>
<tr>
<td>4. Kitten biting paw</td>
<td>Virginia: &quot;Oh, just because.&quot;</td>
<td>4. Then Lila says &quot;so that she will be clean,&quot; and Tarek asks &quot;why.&quot;</td>
</tr>
<tr>
<td>5. Fred calling downstairs</td>
<td>Fred: &quot;Hey, Virginia, come on up and wash before I start to bathe.&quot;</td>
<td>5. Then Lila says &quot;because&quot; then pauses. This is Hoshem calling Lila to bathe.</td>
</tr>
<tr>
<td>6. Virginia answering</td>
<td>Virginia: &quot;All right, Fred.&quot;</td>
<td>6. so that he can bathe too.</td>
</tr>
<tr>
<td>7. Virginia rising</td>
<td>Virginia: &quot;Come on, Billy, let's go upstairs.&quot; Billy: &quot;Wait, Virginia.&quot;</td>
<td>7. Lila calls Tarek to accompany her. Then he says to her &quot;wait!&quot;</td>
</tr>
<tr>
<td>8. Billy licking back of hand</td>
<td>Billy: &quot;I can wash right here. Look.&quot; Virginia: &quot;Oh, Billy.&quot;</td>
<td>8. Then he licks his hand saying &quot;don't.&quot;</td>
</tr>
</tbody>
</table>
Table 4 (Continued)

<table>
<thead>
<tr>
<th>Scenes</th>
<th>Original Version</th>
<th>English translation of the Arabic Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Virginia</td>
<td>Virginia: &quot;That's no good.&quot;</td>
<td>9.&quot;you see that I can wash here?&quot; and Lila denies that.</td>
</tr>
<tr>
<td>10. Billy queries</td>
<td>Billy: &quot;Why?&quot;</td>
<td>10. and prevents him from what he is doing. Then he asks her &quot;why?&quot;</td>
</tr>
<tr>
<td>11. Virginia leaving</td>
<td>Virginia: &quot;Come on, Billy.&quot;</td>
<td>11. She says &quot;this is silly.&quot;</td>
</tr>
<tr>
<td>13. Kitten handling</td>
<td></td>
<td>13. Then she holds his hand saying &quot;let us go.&quot;</td>
</tr>
</tbody>
</table>
Table 5
Adapting the Original Dialogue

<table>
<thead>
<tr>
<th>Original</th>
<th>An English Translation of the Corresponding Arabic Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watch out, they are sharp</td>
<td>Don't play with the scissors, otherwise you will hurt yourself.</td>
</tr>
<tr>
<td>Darling, don't play with Daddy's books.</td>
<td>No, darling, don't play with Daddy's books.</td>
</tr>
<tr>
<td>Stop, Sonny, you're hurting your sister.</td>
<td>It's a shame, don't pull your sister's hair.</td>
</tr>
<tr>
<td>No, No let us not pick flowers in the park.</td>
<td>Don't pick flowers from the park.</td>
</tr>
<tr>
<td>Don't do that dear; give the other boys a chance.</td>
<td>No darling; let the others drink also.</td>
</tr>
<tr>
<td>Not on the sofa, darling, please don't!</td>
<td>Don't jump on the sofa, darling!</td>
</tr>
</tbody>
</table>
Picture

The writer gave critical attention to recording any change in the picture in the translated version. Both versions of each film were viewed carefully and checked to detect whether scenes were added, scenes were replaced by other scenes, or scenes were omitted.

In all the films used in this study, no change in picture was found.

Part Two: Syntax

This part of the check list deals with the motion picture syntax. Fades, dissolves, wipes and cuts in the eight translated versions remained the same as in the originals.

Part Three: Style

This part deals with the film style. Attention has been given to detecting any variation in the film's editing with a negative result in all the films used.

Summary

The data of each film were then recorded in a separate table. In Tables 6, 7, 8, 9, 10, 11, 12 and 13 on the following pages these data are presented.
Table 6
Analysis of the Translation of the Film
"Alcohol and the Human Body"

<table>
<thead>
<tr>
<th>Alcohol and The Human Body</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Verbal Language Written Frames</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Verbal Language Written Labels</td>
<td></td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>1. &quot;C₂H₅OH&quot; - Scenes 1 and 67</td>
<td>1. Left the same</td>
<td>The label was read in the Arabic narration corresponding to Scene &quot;1&quot;</td>
<td></td>
</tr>
<tr>
<td>2. Vitamins: &quot;D, B₁, A, G, E, B₂, B₆, C&quot; in Scene 51</td>
<td>2. Left the same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off-screen Narration</td>
<td>Arabic off-screen narration</td>
<td>(a) Scenes 59-67 reinterpreted.</td>
<td></td>
</tr>
<tr>
<td>Spoken</td>
<td></td>
<td>(b) Some parts of narration corresponding to Scenes 33, 42-47 are omitted.</td>
<td></td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
</tbody>
</table>
### Table 7
Analysis of the Translation of the Film "Body Defenses"

<table>
<thead>
<tr>
<th>Body Defenses</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Sound Effect</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Written Frames</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 42: &quot;During all these process.... the original kind.&quot;</td>
<td>Left the same as the original</td>
<td>An Arabic translation of the frame was read by the Arabic Narrator</td>
</tr>
<tr>
<td>Written Labels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 31: Lymph node</td>
<td>Same label</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 36: Heart, Liver, Spleen</td>
<td>Same label</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 39: Heart, Liver, Spleen</td>
<td>Same label</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 57: Lymph node</td>
<td>Same label</td>
<td></td>
</tr>
<tr>
<td>Spoken</td>
<td>Off-screen Narration</td>
<td>Arabic off-screen Narration</td>
<td>A faithful and complete translation of the original text.</td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
</tbody>
</table>
## Table 8
Analysis of the Translation of the film "Care of the Skin"

<table>
<thead>
<tr>
<th>Care of the Skin</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>1. Continuing from Scene &quot;1&quot; to Scene &quot;13&quot; 2. Continuing from Scene &quot;78&quot; to the end</td>
<td>1. Omitted 2. Omitted</td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td>Scene &quot;53&quot; knocking on a door</td>
<td>Omitted</td>
<td>The Arabic narrator said &quot;Someone is knocking.&quot;</td>
</tr>
<tr>
<td>Written Language</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Verbal Language</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>1. Dialogue between three children</td>
<td>1. Action and dialogue were described by the narrator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Off-screen Narration</td>
<td>2. Arabic off-screen narration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
</tbody>
</table>
Table 9

Analysis of the Translation of the Film "The Ears and Hearing"

<table>
<thead>
<tr>
<th>The Ears and Hearing</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Music</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the beginning:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Lohengrin, Prelude</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>to Act III by</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wagner, continuing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through Scene &quot;1&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Scene 34 to the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>end of film: Lohengrin</td>
<td></td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td><strong>Sound Effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 2 Crossing</td>
<td>Scene 2 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gate;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning bell;</td>
<td>Scene 2 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gate motors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 3 Approaching</td>
<td>Scene 3 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Train</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 4 Passing</td>
<td>Scene 4 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>train</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 5 Motor being</td>
<td>Scene 5 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>checked</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 6 Baby's cry</td>
<td>Scene 6 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 10 Doorbell</td>
<td>Scene 10 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 13 100 Cycle</td>
<td>Scene 13 Same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>hum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Written Frames</strong></td>
<td>Not Used</td>
<td>Not Used</td>
<td></td>
</tr>
<tr>
<td><strong>Written Language</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
</tbody>
</table>
Table 9 (Continued)

<table>
<thead>
<tr>
<th>Basic Units</th>
<th>The Ears and Hearing</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motion Picture Language</td>
<td>Visual</td>
<td>1. Narration off the screen</td>
<td>1. Arabic narration off the screen</td>
<td></td>
</tr>
<tr>
<td>Spoken</td>
<td>2. Voice of man over the telephone; &quot;We had a quiet trip up there to the lake, I thought that was just wonderful.&quot;</td>
<td>2. The same English voice; faded-out after the word &quot;thought.&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endocrine Glands</td>
<td>Original Version</td>
<td>Translated Version</td>
<td>Notes</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td></td>
<td>Omitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene water dropping in beaker</td>
<td>Scene machines in a factory</td>
<td>Omitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 30 Calendar showing Aug. 1, 2, and 3</td>
<td>Scene 30 Same in English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 32 Label on a bottle &quot;Parathyroid Extract&quot;</td>
<td>Scene 32 Same in English</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenes 38-40 Two labels were faded-in -- &quot;1-Removing the Gland Leads to measurable defects, and &quot;2-These defects are prevented by Administering An Active Extract from the Gland.&quot;</td>
<td>Scenes 38-40 Kept the same as the original</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 50 Two labels on two test tubes--the first reads &quot;Normal Urine&quot; and the second reads: &quot;Diabetic Urine.&quot;</td>
<td>Scene 50 Same as the original</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 10 (Continued)

<table>
<thead>
<tr>
<th>Endocrine Glands</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scene 70</td>
<td>A jar labeled &quot;Thyroid Excess.&quot;</td>
<td>Scene 70 Same as the original</td>
<td>No explanation of the labels in the Arabic translation</td>
</tr>
<tr>
<td>Scene 72</td>
<td>An oxygen tube labeled &quot;O₂&quot; and the same label in Scene 71</td>
<td>Scene 72 Same as the original</td>
<td></td>
</tr>
<tr>
<td>Scenes 74-75</td>
<td>Two jars—the first is labeled &quot;Thyroid Excess,&quot; and the second is labeled &quot;Normal.&quot;</td>
<td>Scenes 74-75 Same as the original</td>
<td></td>
</tr>
<tr>
<td>Scene 76</td>
<td>A closer view of labels in scenes 74-75</td>
<td>Scene 76 Same as the original</td>
<td></td>
</tr>
<tr>
<td>Scene 84</td>
<td>Label on a salt container reads: Iodized Salt This salt contains Potassium Iodide 1 part in 5,000</td>
<td>Scene 84 Same as the original</td>
<td></td>
</tr>
<tr>
<td>1. Blood Analysis Chart</td>
<td>1. Same in English</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 10 (Continued)

<table>
<thead>
<tr>
<th>Endocrine Glands</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spoken Verbal Language</td>
<td>Off-Screen Narration</td>
<td>Off-Screen Arabic Narration</td>
</tr>
<tr>
<td>Basic Units</td>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Motion Picture Language</td>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
</tr>
<tr>
<td>Syn-Style</td>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
</tr>
</tbody>
</table>
Table 11
Analysis of the Translation of the Film "Eyes and Their Care"

<table>
<thead>
<tr>
<th>Eyes and Their Care</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Written Frames</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Written Labels</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 23</td>
<td>Dim vision</td>
<td>Scene 23 Labels</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colorless vision</td>
<td>were left</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Side vision</td>
<td>untranslated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sharp vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dim vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colorless vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Side vision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbal Language</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scene 23</td>
<td>Off-Screen narration</td>
<td>Arabi</td>
<td>The whole text</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Narration</td>
<td>was translated</td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
</tbody>
</table>
Table 12
Analysis of the Translation of the Film "Helping the Child to Face the Don't's"

<table>
<thead>
<tr>
<th>Helping the Child to Face the Don't's</th>
<th>Original Version</th>
<th>Translated Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Written Frames</td>
<td>Scene 1 &quot;We are all different due in part to heredity but also because we were brought up differently. In our childhood we reacted to the Don't's by conforming in our distinctive ways -- thus forming our individual personality.&quot;</td>
<td>Scene 1 An Arabic translation of the original text.</td>
<td></td>
</tr>
<tr>
<td>1. Off-screen narration</td>
<td>Arabic off-screen narration</td>
<td>The whole text was translated</td>
<td></td>
</tr>
<tr>
<td>2. Mother's voice heard eight times</td>
<td>Arabic mother speaks eight times</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical Effects</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Home Nursing</td>
<td>Original Version</td>
<td>Translated Version</td>
<td>Notes</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Music</td>
<td>Scene 41</td>
<td>Scene 41 Same as</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scene 50</td>
<td>Scene 50 Same as</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the original</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Realistic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>effects)</td>
<td></td>
</tr>
<tr>
<td>Sound Effects</td>
<td>Scene 5 A cough</td>
<td>Scene 5 Eliminated</td>
<td></td>
</tr>
<tr>
<td>Written</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td>Not used</td>
<td>Not used</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>Off-screen</td>
<td>Arabic off-screen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narration</td>
<td>Narration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some parts of</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the original text</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>were left out in</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the translated</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>version</td>
<td></td>
</tr>
<tr>
<td>Picture</td>
<td>Unchanged</td>
<td>Unchanged</td>
<td></td>
</tr>
<tr>
<td>Optical</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Editing</td>
<td>The same</td>
<td>The same</td>
<td></td>
</tr>
<tr>
<td>Tax Style</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To summarize, sound effects were used in Care of the Skin, The Ears and Hearing, Endocrine Glands, and Home Nursing. In the translated versions of these four films, sound effects were preserved only in the Ears and Hearing.

Music was used in Care of the Skin, The Ears and Hearing and Home Nursing. In the translated version of Care of the Skin, music was omitted; whereas in the Arabic versions of Ears and Hearing and Home Nursing, music was kept the same as the original.

The emphasis in translating the films used in this study was on translation of the spoken verbal sound track. In four films (Endocrine Glands, Helping the Child to Face the Don't's, The Eyes and Their Care, and Body Defenses Against Disease) the translation of the spoken verbal element was faithful and complete. In one film, The Ears and Hearing, one sentence was left untranslated and heard in English in the Arabic version. In two films (Alcohol and the Human Body and Home Nursing) some parts of the English text were left out in the Arabic narration. In one film, Care of the Skin, some parts of the English text were paraphrased. In Alcohol and the Human Body, the last part of the film was reinterpreted in Arabic.

English off-screen narration was translated, and Arabic off-screen narration was heard in the translated versions.

The original dialogue in Care of the Skin was paraphrased in the translated version. In the Arabic version of this film the narrator described the action and the conversation between the children actors.
The one-sided dialogue in The Ears and Hearing was left untranslated; whereas the mother's voice in Helping the Child To Face the Don't's was translated, and an Egyptian mother was heard speaking to her child.

American names of actors were replaced by popular Arabic names. For example, in Care of the Skin, "Billy" was replaced by "Tarek," "Virginia" by "Lila," and "Fred" by "Hosham." In Home Nursing, "Ruth" was replaced by "Lila," and "June" by "Nadia."

The picture, the syntax, and the style were kept unchanged in the translated versions in all the films used in this study.

Since the verbal sound track in educational films has a significant role in communicating the film's message, the writer attempted to detect any variation in the suitability of the Arabic verbal sound track from that of the original. To do that the vocabulary level and the rate of delivery of both the original and the translated version were measured.

To measure the vocabulary level of the original film, four 100-word samples were used -- one at the beginning, one at the end, and two taken at random. Applying the Dale-Chall Formula, the vocabulary level of the film was calculated.

Table 14 shows the different films used and their vocabulary level.
Table 14
THE ENGLISH VOCABULARY LEVELS OF THE FILMS UNDER STUDY

<table>
<thead>
<tr>
<th>Film Title</th>
<th>Corrected Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and the Human Body</td>
<td>13 - 15th Grades</td>
</tr>
<tr>
<td>Body Defenses Against Disease</td>
<td>13 - 15th Grades</td>
</tr>
<tr>
<td>Care of the Skin</td>
<td>4th Grade</td>
</tr>
<tr>
<td>The Ears and Hearing</td>
<td>9 - 10th Grades</td>
</tr>
<tr>
<td>Endocrine Glands</td>
<td>13 - 15th Grades</td>
</tr>
<tr>
<td>Eyes and Their Care</td>
<td>11 - 12th Grades</td>
</tr>
<tr>
<td>Helping the Child to Face the Don't's</td>
<td>9 - 10th Grades</td>
</tr>
<tr>
<td>Home Nursing</td>
<td>9 - 10th Grades</td>
</tr>
</tbody>
</table>

The writer was unable to discover a formula to measure the vocabulary level of a text in Arabic, and the Dale-Chall Formula would have not been applicable to the Arabic language. However, since five of these films (Endocrine Glands, Ears and Hearing, Eyes and Their Care, Body Defenses Against Disease, and Alcohol and the Human Body) deal with scientific subjects, a great deal of the text is composed of technical terms. On analyzing the number of technical and scientific terms delivered every minute, the writer found it to be 13 words in both the translated and the original versions -- which is considered as a high score. Assuming that students all over the world have a common scientific background, it is therefore safe to state that the level of abstractions of the
translated and the original versions of these five films are about the same. Thus the vocabulary levels of the Arabic versions of these five films are the same as that of the original versions.

The experiences demonstrated in the other three films (Care of the Skin, Home Nursing, and Helping the Child to Face the Don't's) are common to students of different cultural background. Therefore, the levels of abstractions of the original and the translated versions are about the same. Accordingly, the vocabulary levels of both versions of these three films are the same.

The rate of delivery, i.e., number of words delivered per minute, was measured for both versions of every film by dividing the number of words in each text by the corresponding film's length. Credit titles were excluded. Table 15 shows the rate of delivery of each film's versions.

In Alcohol and the Human Body and Home Nursing some parts of the original text were excluded from the translated version. To obtain the number of Arabic words of a complete translation of the English text, the omitted English parts were translated into Arabic. The number of Arabic words that convey the meaning of the omitted English parts is added to the number of the Arabic words of the translated film to give the number of Arabic words of a complete translation of the English text. Table 16 and Table 17 present the English parts omitted from Alcohol and the Human Body and Home Nursing, and the number of Arabic words that convey the meanings of those parts.
Table 15
THE RATE OF DELIVERY OF THE ENGLISH AND THE ARABIC VERSIONS
OF THE FILMS UNDER STUDY

<table>
<thead>
<tr>
<th>Film Title</th>
<th>Rate of Delivery</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>English</td>
<td>Arabic</td>
<td></td>
</tr>
<tr>
<td>Alcohol and the Human Body</td>
<td>111</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Body Defenses Against Disease</td>
<td>118</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Care of the Skin</td>
<td>128</td>
<td>74</td>
<td></td>
</tr>
<tr>
<td>The Ears and Hearing</td>
<td>105</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Endocrine Glands</td>
<td>112</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>Eyes and Their Care</td>
<td>119</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Helping the Child to Face the Don't's</td>
<td>92</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>Home Nursing</td>
<td>129</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Scene Numbers</td>
<td>Omitted English Text</td>
<td>Number of Equivalent Arabic Words</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Five-hundredths percent is about one ounce of undiluted alcohol in the entire blood stream</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>When the concentration of alcohol in the blood stream reaches about four-tenths percent</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>Four-tenths percent is about eight ounces of undiluted alcohol in the entire blood stream</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>of an average-sized adult</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>In this respect it is like any other food</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Physical tests and a study of the patient's history are needed in order to make sure that he is really suffering from alcoholism. Hospitalization for several days may be needed.</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>During this time he receives a balanced diet and is treated medically, if necessary.</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>86</td>
<td></td>
</tr>
</tbody>
</table>
Table 17
The English Narration Omitted from the Arabic Version of the Film "Home Nursing"

<table>
<thead>
<tr>
<th>Scene Number</th>
<th>Omitted English Text</th>
<th>Number Equivalent Arabic Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>June has been able to assume full responsibility for her sister's care in guarding against such a relapse. She keeps the surroundings cheerful and normal, with sickroom equipment out of sight -- June takes the necessary articles from a drawer near the foot of the bed</td>
<td>39</td>
</tr>
<tr>
<td>17</td>
<td>After this, Ruth will be wide awake, cheerful, and ready for breakfast</td>
<td>8</td>
</tr>
<tr>
<td>30</td>
<td>June is ready to record the date for the doctor's information</td>
<td>6</td>
</tr>
<tr>
<td>35</td>
<td>Urine and bowel elimination</td>
<td>3</td>
</tr>
<tr>
<td>38</td>
<td>June has arranged both tray and patient so that everything is convenient, and Ruth may eat in comfort without danger of spilling the food</td>
<td>20</td>
</tr>
<tr>
<td>45</td>
<td>After her long illness, though she may feel strong lying in bed ...</td>
<td>11</td>
</tr>
<tr>
<td>46</td>
<td>... So she must not exert herself</td>
<td>5</td>
</tr>
<tr>
<td>50</td>
<td>Then, without exposing the patient's legs and feet, she changes her position so that she can put on her bedroom slippers</td>
<td>15</td>
</tr>
</tbody>
</table>

Total 106
Adding the number of the Arabic words that convey the meaning of the omitted English narration to the number of the Arabic words in the translated version, we get the number of Arabic words that correspond to the whole English text. Dividing this last number by the film's length, we get a corrected rate of delivery. In Table 18 the number of Arabic words equivalent to the omitted English narration, the number of words in the translated narration, the number of Arabic words equivalent to the whole English text, and the corrected rate of delivery are presented.

In Table 19 the rate of delivery of both versions of Alcohol and the Human Body and Home Nursing and the corrected rate of delivery of the Arabic versions of these films are presented.

Studying Table 15 and Table 19, it becomes clear that the rate of delivery of the Arabic versions of the films under study is less than that of the English versions. This might be due to the nature of the Arabic sentence structure. For example, "Vision is the most important of the human senses," is a nine-word sentence. If this sentence is translated into Arabic we get a four-word Arabic sentence: "Al-basar aham hoas al-imsan," that conveys the exact meaning of the English sentence. In this instance, one Arabic word "aham" stands for the three English words "the most important"; the Arabic word "al-imsan" stands for three English words "of the human"; and the verb "is" is implied in the Arabic sentence.

On page 66 in Chapter II, Motion Picture Language, it was indicated that the appropriate rate of delivery of English films
### Table 18
Calculating the Corrected Rate of Delivery of the Arabic Versions of "Alcohol and the Human Body," and "Home Nursing."

<table>
<thead>
<tr>
<th>Film Title</th>
<th>Number of Words In the Arabic Version</th>
<th>Number of Arabic Words Equivalent to the omitted English Parts</th>
<th>Number of Arabic Words Equivalent to the Whole English Version</th>
<th>Corrected Rate of Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and the Human Body</td>
<td>1001</td>
<td>86</td>
<td>1087</td>
<td>85</td>
</tr>
<tr>
<td>Home Nursing</td>
<td>832</td>
<td>115</td>
<td>947</td>
<td>95</td>
</tr>
</tbody>
</table>

### Table 19
Comparison Between the Corrected Rate of Delivery of the Arabic and the Rate of Delivery of the English Versions of "Alcohol and the Human Body," and "Home Nursing."

<table>
<thead>
<tr>
<th>Film Title</th>
<th>Corrected Rate of Delivery of the Arabic Version</th>
<th>Rate of Delivery of the English Version</th>
<th>Corrected Rate of Delivery of the Arabic Version</th>
<th>Rate of Delivery of the English Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol and the Human Body</td>
<td>80</td>
<td>85</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>Home Nursing</td>
<td>83</td>
<td>95</td>
<td>129</td>
<td></td>
</tr>
</tbody>
</table>
lies between 100-130 words per minute. From the above discussion it is possible to state that the concepts conveyed by 130 English words can be conveyed by fewer Arabic words. Therefore, it is inaccurate to state that the appropriate rate of delivery for Arabic films is between 100-130 words per minute. Accordingly, it is therefore, difficult to judge the suitability of the rate of delivery in the Arabic films under study.

Further research is needed to determine the most appropriate rate of delivery for Arabic films.
CHAPTER V

PRINCIPLES OF TRANSLATING PRINTED MATERIALS

In a good educational film the sound track supplements the picture. In fact, since both elements -- picture and sound reinforce each other, it is almost impossible for either of them to stand alone. Accordingly, it is difficult to think about a good translation of a sound educational film without giving critical attention to the sound track.

In sound motion pictures the sound track is usually composed of three elements: verbal language, sound effects, and music. To derive principles of translating the verbal element of the sound track, it seemed essential to study first the principles of translating the verbal language. In this chapter, a thorough discussion of the principles of translating printed materials will be presented.

This analysis aims (1) to serve as a background for the discussion on principles of translating the verbal element in motion picture to be presented in the following chapter and (2) to indicate the differences and similarities in the principles of translating printed materials and those of translating the verbal element of the motion picture.

"Translation is an indispensable means through which interchange of culture may be effected,"\(^1\) thus helps foster the welfare of

---

human race. In a recent report by the Unesco, Scientific and Technical Translating, it has been stated that

"... at least 50 percent of scientific literature is in languages which more than half the world's scientists cannot read. Nearly two-thirds of engineering literature appears in English, but more than two-thirds of the world's professional engineers cannot read English and a still larger proportion of English-reading engineers cannot read scientific literature in other languages."  

Therefore, "the greater part of what is published is inaccessible to most of those who could otherwise benefit from it."  

To overcome this problem three remedies are suggested: (1) translating, (2) increasing the proportion of scientists able to read foreign languages, and (3) encouraging the practice of publishing scientific literature in widely known languages.

In spite of the translation's clear importance, a comparatively small amount of critical attention has been given to the

\[2\] Unesco, Scientific and Technical Translating and Other Aspects of Language Problem, 1957, p. 13.

\[3\] Ibid.

\[4\] Ibid.
"art of translation." In 1790 Alexander Tytler wrote:

There is no department of literature which has been less the object of cultivation than the Art of Translation. Even among the ancients who seem to have had a very just idea of its importance and who accordingly ranked it among the most useful branches of literary education, with no attempt to unfold the principles of this art, or to reduce it to rules. In the words of Quintilian, of Cicero, and of the Younger Pliny, we find many passages which prove that these authors had made translation their peculiar study; and conscious themselves of its utility, they have strongly recommended the practice of it, as essential towards the formation both of a good writer and accomplished orator. But it is to be regretted, that they who were so eminently well qualified to furnish instruction in the art itself, have contributed little more to its advancement than by some general recommendations of its importance. If indeed time had spared to us any complete or finished specimens of translation from the hand of those great masters, it had been some compensation for the want of actual precepts, to have been able to have deducted them ourselves from those exquisite models. But of ancient translations the fragments that remain are so inconsiderable, and so much mutilated that we can scarcely derive from them any advantage.\(^5\)

One hundred and sixty-seven years later Savory indicated the lack of literature on the art of translation, he said:

Translations are many, almost beyond the counting, but appraisals of the art of the translator are in proportion fewer. A scientist of today, compiling for himself a literature-list of the matter on which he is engaged, may reasonably expect to find some scores of titles in his bibliography; the student of the process of translation is unlikely to come upon a couple of dozen. To these there must be added a large number of suggestions and statements, brief or not so brief, contained in Prefaces and Introductions to

translated books, in which the writer has expounded his ideas of the business and has explained the principles that he has adapted for guidance.\(^6\)

Maymi reasoned the lack of literature on translation on the basis that "translators take their art for granted and seem to disregard the laying down of specific rules explaining the techniques followed by them in their work."\(^7\)

Among the comparatively few writings on translation, one can find very contradicting principles, as Savory said, "... translators have freely contradicted one another about every aspect of their art."\(^8\) For a long time translators have debated the problem of overcoming the language barrier while being faithful to the original piece of work. Nevertheless, there has been no agreement on defining "faithfulness," or "fidelity," as Amos put it:

To one writer fidelity may imply a reproduction of his original as nearly as possible word for word and line for line; to another it may mean an attempt to carry over into English the spirit of the original, at the sacrifice, where necessary, not only of the exact words but of the exact substance of his source. The one extreme is likely to result in an awkward, more or less unintelligible version; the other, as illustrated, for example, by Pope's Homer, may give us a work so modified by the personality of the translator or by the prevailing taste of his time.


\(^8\)Savory, op. cit., pp. 7-8.
as to be almost a new creation. But while it is easy to point out the defects of the two methods, few critics have had the courage to give fair consideration to both possibilities; to treat the two aims, not as mutually exclusive but as complementary; to realize that the spirit and the letter may be not two but one.\footnote{Flora Ross Amos, \textit{Early Theories of Translation}, New York: Columbia University Press, 1920, p. xii.}

Arnold pointed out the contradictory principles concerning the aim of translating Homer saying

It is disputed, what aim a translator should propose to himself in dealing with his original. Even this preliminary is not yet settled. On one side it is said, that the translation ought to be such 'that the reader should, if possible, forget that it is a translation at all, and be lulled into the illusion that he is reading an original work; something original,' (if the translation be in English), 'from an English hand.' . . . On the other hand, Mr. Newman translator of Homer . . . declares that he 'aims at precisely the opposite: to retain every peculiarity of the original, so far as he is able, with the greater care the more foreign it may happen to be;' so that it may 'never be forgotten that he is imitating, and imitating in a different material.' The translator's 'first duty,' says Mr. Newman, 'is a historical one to be \textbf{faithful}.' Probably both sides would agree that the translator's 'first duty is to be \textbf{faithful};' but the question at issue between them is, in what faithfulness consists.\footnote{Matthew Arnold, \textit{On Translating Homer}, London: Longman, Green, Longman, and Roberts, 1861, pp. 2-3.}

In his study, "Principles of Language Translation," Maymi concluded that translators basically followed three theories of translation:

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(1) literal translation, in which the rendition follows the same language patterns of the original and the sense is subordinate to the letter; (2) idiomatic translation, in which the rendition is expressed according to the idiom peculiar to the language into which the translation is made; (3) paraphrasical translation, in which the sense is restated by the translator in his own thoughts and words.  

Maymi believes that, "... there are passages which may be rendered literally, others idiomatically, and still others that require the restatement of the sense of the original in thoughts and words characteristic to the language into which the translation is made." On this basis he advocates the blending of the three theories into one theory, "the Eclectic Theory of Translation." According to this theory we can say that different written materials require different treatments in translation. Belloc has recognized this principle when he distinguished between translating textbooks and translating literature. He stated that a text book should be translated literally, whereas a story or a poem should be translated in a literary manner.  

Savory looks at translation as "a many sided art," and condemns the scholars who consider translation as a uniform process, he says:

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11 Maymi, op. cit., p. 66.

12 Ibid., p. 66.

By far the greater part of the existing writings on the subject of translation treat it as though it were a uniform process, and nearly always as though it consisted only of the translation of Latin and Greek poetry into English verse, whereas translation is a many sided art, and no balanced or proportionate study of it can neglect this fact.¹⁴

Savory has recognized four different categories of translation:¹⁵

1. Perfect translation: "the perfection of the translations is a result of the nature of the original message. It is direct and unemotional and it is made in plain words to which no very intense associations are attached." He considers the translation perfect when the communicatees of the different tongues react the same to the message. For example "all purely information statements such as:

   Important
   Please insure that your baggage is correct before leaving the air terminus.

   Attention
   Messieurs les passagers sont pries de verifier leur bagages avant de quitter l'aerogare.

   In this case he assumed that an Englishman and a Frenchman receive exactly the same information, and react to

¹⁴ Savory, op. cit., pp. 16-17.
¹⁵ Ibid., op. cit., pp. 18-28.
it in the same way, "possibly with much the same sensa-
tions."

2. Adequate translation: "From the perfect we proceed to the
adequate; to translations which are so satisfactory in
practice that a grumble at words or phrases here and
there may be dismissed as a quibble."

3. (No name is given) "The third category is a composite
one, including as it does the translation of prose into
prose, of poetry into prose and poetry into poetry."

"... It is in this category that the theoretical impos-
sibility of perfect translation can have no serious an
effect that the conscientious translator may spend a very
long time on his work. The time may, indeed, be so long
that the commercial value of the translation is wholly
neglected and all that is gained is the intellectual
exercise and the keen intellectual pleasure that results
from the effort."

4. (No name is given) Under the fourth category comes the
translation of all learned, scientific, technical and
practical matter. Translations of this sort differ from
those in the second category in that (1) translations of
scientific materials are made only because of their in-
trinsic importance, importance which is strictly con-
fined to the practical business of living; (2) it is almost
a necessity that the translator should have a reasonable
knowledge of the science or the technique about which
the original was written.

Thus, we can say that Savory believes that different written
materials require different treatments in translation. This same
idea has been emphasized in the Unesco report, Scientific and
Technical Translating: "Texts requiring translation vary not only
as regards their special subject content but also as regards types
of document, each type calling for more or less different treatment."\(^{16}\)

Through Gordon Carey's study, American Into English, we can see
a justification for our general principle in translating written
materials: "different written materials require different treatments
in translation:"

... there is only one type of book that needs to be
completely anglicized, 'A French author, let us say,
writes a novel (with a purely European setting) that
is published in Paris, translated by an American and
republished in New York, and later republished once
more, in its American translation, in London. Very
well: it is perfectly proper in such a case for the
English publisher ... to see to it that in his edi­
tion not merely the spelling but also the idiom of
the American version is everywhere translated into
English.'

Then there is an intermediate class of work demand­
ing something less than 'total anglicisation,' namely
the book of purely American authorship not wholly con­
cerned with America. Here, I submit, whenever essen­
tially American idiom accords ill, to English ears,
with non-English speakers or setting, it should be
translated.

\(^{16}\) Unesco, op. cit., p. 27.
With the largest class, however, of American books republished in the United Kingdom surely the right principle to follow is: in non-fiction, to leave the author untouched except for the spelling, and perhaps an occasional word or phrase liable otherwise to be misunderstood; in fiction with an American setting, to translate, in narrative or descriptive passages only, such Americanisms as might otherwise be unintelligible, or possibly misleading, to the ordinary English reader, but to let the dialogue alone—let hundred per cent Americans speak hundred per cent American.¹⁷

Written materials require different treatments in translation not only as regards their content, and types of document, but also as regards to whom the translation is intended. Savory¹⁸ has recognized four types of readers: (1) a reader who knows nothing at all of the original language; who reads either from curiosity or from a genuine interest in a literature of which he will never be able to read one sentence in its original form; (2) a student who is learning the language of the original, and reads the translation to help him get more familiar with the language; (3) a reader who knows the language but has forgotten it, and (4) a scholar in the field of translation. Savory assumes that the same translation cannot suit them all.

The intended reader, as a factor in determining the method of translation, is recognized in the Unesco report, Scientific and Technical Translating:

Where translations are made simply for the information of those staff members in an organization who are not good at reading the foreign languages themselves, in order to save them the time and trouble of trying to puzzle out the original texts, much less importance attaches to finish of presentation than to speed and economy of effort. There are circumstances in which the making of a translation in the proper sense of that work would be a waste of time: all that the intending reader wants is to be told what the meaning is and be able to ask questions about it. In such cases it may not be necessary for the whole of a given text to be translated. A common procedure is for the translator, having read through the foreign paper, first to explain its purport orally to the staff member concerned and then to translate in typescript only such passages as the latter may wish to have on permanent record. Sometimes even the need for typesetting might be avoided by filing an appropriate form of speech record.¹⁹

Thus, we can state as the general principle of translation: there is no one best way of translating written materials. The nature of the content, the intended reader, and the purpose of the translation determine whether the translation will be literal, idiomatic, paraphrasical, or partial.

After determining the method to be followed in translation, the translator is faced with specific problems which can be classified under two main categories:

1. Lack of Equivalence

2. Idiomatic Problems

Lack of Equivalence

By "Lack of Equivalence," we mean two things: (1) the meanings attached to corresponding words in two languages are not identical; (2) lack of words in the language of rendition corresponding to words in the original language, and vice versa.

Unidentical meanings attached to corresponding words. Although England and the United States are supposed to speak the same language, yet differences in meanings attached to the same words are reported. In the Second World War, Mr. Winston Churchill has described how at an important war council, the different meanings unwittingly attached by Americans and British respectively to the same word led to "long and even acrimonious argument, when both parties, had they realized it, were all the time in agreement."[20] Gordon Carey reports, "... the number of less familiar, more subtle shades of difference between American and English usage may perhaps surprise not a few readers who account themselves tolerably well acquainted with American writing. I confess that their number began to surprise me as my reading proceeded."[21] The difference in meanings attached to corresponding words of two different languages can

[20] Carey, op. cit., p.1
[21] Ibid., p.7.
be illustrated by the following incident. When the writer attempted to translate the film Accent on Learning into Arabic he found out that the term "good teaching" was used repeatedly in the film. By "good teaching" was meant excellent or effective teaching. However, the equivalent Arabic word "gayed" to the English word "good" does not convey the intended meaning, because we grade our teachers in terms of bad, average, good, very good, and excellent. Thus, the correct translation is "excellent teaching," "effective teaching" or "successful teaching."

This point brings us to a basic principle in translation, as stated in the Unesco report, "Correct translation is not a mere substitution word for word from one language into another but requires some understanding of the way people in different countries think." According to this principle looking for equivalents in dictionaries is not a good practice in translation. Bates believes that a student of translation "must learn how to read a dictionary, whose mission is not to translate but to make comprehensible, to give explanations."

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22 Accent on Learning, 30 min. b&w. sound film, produced by The Department of Photography, The Ohio State University. It demonstrates techniques and methods of teaching on the college and university level as illustrated by the actual classroom situations. The purposeful use of lecture, blackboard, charts, recordings, lantern slides, demonstrations, filmstrips, models, motion pictures, and other teaching aids are shown. The film is designed primarily for instructional staffs of colleges and universities.

23 Unesco, op. cit., p. 33.

Even in translating scientific or technical materials the dictionary is not satisfactory, as it has been stated:

Even if dictionaries were perfect and up to date, which is very far from being the case, they could never be a substitute for familiarity with the subject matter on the part of the translator, any more than a catalogue of builders' supplies can be a substitute for knowledge of architecture. It is not individual words that are the translatable units of language, but phrases made up of words woven into patterns which represent patterns of ideas.\(^\text{25}\)

Holmstrom believes that a scientific translator who relies on dictionaries can commit serious mistakes; he says:

... a scientific translator, if he is working on the margin of his own professional field and is compelled to rely on dictionaries for the special terms, may easily make such a mistake as, supposing he is a Frenchman, that 'soldering' in English includes 'welding' as does soudage in French or, if he is an Englishman, that ciment always mean cement, not appreciating that often this term is used as a synonym for beton, 'concrete.'\(^\text{26}\)

Therefore, understanding the precise meaning of the original, and selecting the precise words that clearly convey the intended meaning is what makes a good translation. To be able to do that the translator has to be familiar with the way people in the two

\(^{25}\)Unesco, \textit{op. cit.}, p. 33.

\(^{26}\)J. E. Holmstrom, "How Translators can Contribute To Improving Scientific Terminology," \textit{Babel}, 1955, pp. 73-79.
countries — the country of the original, and the country of the rendition — think. Familiarity with the subject matter is an important condition for a good scientific translator. Thoughtfulness and ingenuity are needed on the part of the translator whenever he is faced with words in the original that do not have equivalents in the other language. This point brings us to the second part of the problem: Lack of words in the language of rendition corresponding to words in the original. Faced with this problem the translator has to choose between three alternatives: (1) transliteration, (2) adaptation of the new word according to the phonetic patterns of the language and (3) the coining of new words.

Transliteration. A Danish critic noted that: "... thoughtfulness and ingenuity are needed where no word exists in a language for a certain concept because that concept is unknown in the country where that language is spoken. In such a case, he considers it safest to leave the word untranslated and, if an explanation is added, to make it clear that this has been done by the translator."  

Maymi stated that, "Geographical names should be translated

\[27\] Unesco, op. cit., p. 33.
only when there are Spanish equivalents generally known and accepted, . . . At any rate, in the absence of equivalents, the translator has no choice but to leave them untranslated. 28 To leave words untranslated because of the non-existence of their equivalences has two advantages: (1) It avoids mistakes in translation which come from misinterpretation of the meaning of a word in the original, and/or inaccurate choice of a word to convey the meaning of the original. Individual translators can easily commit any of these mistakes. (2) It avoids any confusion as a result of free individual translations: Limaye reports on translation of non-existent technical terms in the Indian languages:

... the necessary terms, which were, till then, non-existent in these languages were either coined anew or old terms were used with new connotations. As one would expect in such individual efforts, different equivalents were often suggested for the same English word. Although, in the initial stages such a course was natural and to some extent inevitable, it was evident that uniformity should exist in the use of Indian scientific equivalents, in order to avoid confusion arising out of the use of different equivalents for the same English term, or, the same Indian term being used to convey the meaning of different English terms. 29

In time, transliterated words become a part of the native language. For example, when nylon products came to Egypt, the

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word 'nylon' became known by most of the people in a relatively short time. The assimilation of transliterated words easily occurs when the words are of a concrete nature, as Aasta reports:

...most of the English words borrowed in Norway are of a concrete nature, they are the names of things, material objects or definite activities introduced from the English-speaking world; they are mostly connected with material culture. Words descriptive of concrete type of activities will be found among Sport-Words, Food, Drink, etc. Music and Dancing. Words referring to material objects will be found in groups connected with inventions, and with imported goods.  

Savory reports how French people have assimilated the words "five-o'clock"; he says:

The habit of five-o'clock tea was introduced by the English to the French, whose language had no name for such a meal. It accordingly became known as le fiveocloque, and this gave rise to a corresponding verb, so that at one time one might read in a hotel the information that 'on fiveocloque a quatre heures.'

In the writer's opinion the assimilation of transliterated words is accelerated when their pronunciations do not contradict the phonological system of the native tongue. For example, the words nylon, films, cinema, handball, foul, football, neon, aerial, o.k. are known among the street men in Cairo. When the pronunciations of the foreign words oppose the phonological patterns of the

31 Savory, op. cit., p. 15.
native tongue, the people modify these pronunciations to suit themselves. For example, the words telephone, police, bank are pronounced in Arabic as: teleephone, boldce, bnk. This brings us to the second alternative.

2. Adaptation of the Foreign Word According to the Phonetic Patterns of the Language of Rendition. To adapt a foreign word according to the phonetic system of the native language means to pronounce and spell the word in a way that makes it easier for the natives to pronounce and write it. Names of persons or places undergo adaptation when translated. For example, the English alphabet does not have letters denoting the sounds of the Arabic letters ٤, ١, ٠. No association of English letters can accurately produce these sounds. Accordingly Arabic names containing any of these five sounds are adapted, and not transliterated, in English. The following list contains five Arabic names and their adaptations in English:

<table>
<thead>
<tr>
<th>Arabic Name</th>
<th>English Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>خالد</td>
<td>Kaled</td>
</tr>
<tr>
<td>حامد</td>
<td>Hamed</td>
</tr>
<tr>
<td>ناضل</td>
<td>Fadel</td>
</tr>
<tr>
<td>عباس</td>
<td>Abaas</td>
</tr>
<tr>
<td>ناجي</td>
<td>Ghaly</td>
</tr>
</tbody>
</table>

Aasta reports that, "When one language is in the habit of borrowing from another, a fixed set of correspondences is established between the phonological elements of the two languages." 32 He reports

32 Aasta, op. cit., p. 9.
that the "set of correspondences" is not well established between the English and Norwegian languages. However, the "set of correspondences" has been perfected with regard to technical and scientific words of Latin and Greek origin; he says:

The international technical and scientific vocabulary, which consists of Greek or Latin words and of words formed in modern times from classical elements, are spelt according to Norwegian rules. When fresh words are adapted ph is replaced by f, c by k or s, the endings -tion, -ssion, and sion by -sjon. In their case the technique of adoption has been perfected with regard to orthography. That is not the case with words of English origin.\textsuperscript{33}

In the writer's opinion, the "set of correspondences" is established between the English and Arabic languages. Endings "en" as in hydrogen is replaced by "een"; endings "phy" as in geography is replaced by "phia"; endings "ic" as in static is replaced by "ica". New letters are introduced in the Arabic language to denote English sounds. However, these letters are still not considered as a part of the Arabic alphabet. These letters are \textsuperscript{33}٥،٧،٨،٩. The following table illustrates the use of these letters.

<table>
<thead>
<tr>
<th>English Sounds</th>
<th>Original Arabic Sounds</th>
<th>The use of the new letters</th>
</tr>
</thead>
<tbody>
<tr>
<td>P as in Parker</td>
<td>barker</td>
<td>Parker ( ٥ )</td>
</tr>
<tr>
<td>V as in Violet (name of a person)</td>
<td>fiolet</td>
<td>Violet ( ٨ )</td>
</tr>
</tbody>
</table>

\textsuperscript{33} Ibid., p. 7.
The translator should be familiar with the rules of adaptation. However, if he sees a necessary modification he should point it out.

Some scholars doubt the value of a translation having the terms either transliterated or adapted. They advocate the rendition of foreign words, especially technical and scientific terms, into the native tongue. This point brings us to the third alternative.

3. The Coining of New Words. Limaye questioned the value of a translation of scientific materials having the terms either transliterated or adapted; he says:

"Can it be said that a sentence consisting over eighty per cent of words from a foreign language would convey any adequate sense to a reader? The main difficulty would still continue even in such 'translations'... Hence the only rational alternative left is to render these very technical and scientific terms into the Indian languages so that they no longer remain a burden on the memory of the student and in fact would be intelligible to him. Moreover, the phonetic aspect cannot be altogether neglected, since the strange sounds of foreign terms are a hindrance to the assimilation of knowledge."34

Limaye states that, "There has not been any unanimity of opinion as to whether all the technical terms from English or any other foreign language should be rendered into the Indian languages or only some of the terms, accepting the rest as they are."35 Nevertheless he

\[35\] Ibid., p. 15.
recommends the translation of technical terms, even those derived from Latin and Greek, into the Indian Languages. He argues,

The names and symbols of chemical elements, binomial nomenclature of plants and animals which is common to most of the European languages, have offered the greatest stumbling block. As it is well known most of these terms are derived from Latin or Greek - the sources available to the European languages. However meaningful these might be to the European readers, they are quite unintelligible to the Indian students and at times even to their teachers.36

The writer disagrees with Limaye on the matter of rendering technical and scientific terms of Latin and Greek origin from language A to language B for three reasons: First, such terms should be internationally standardized as a first stage in developing the international language, as Mario Pei notices, "So widespread is Latin and Greek participation in the terminology of the more scientific, literary and intellectual segment of European vocabularies that many people think this Gracco-Latin complex will form the nucleus of the international language of the future."37

Second, Limaye's assumption that scientific terms of Latin or Greek origin are meaningful to the European readers is not valid.

36 Ibid.

37 Mario Pei, Language for Everybody, p. 44.
Joseph Collins observes that, "Learners are greatly handicapped because of ignorance of the precise meaning of words of Latin and Greek origin." He reports that through continued testing in his college classes he found that "students generally do not know the meaning of prefixes, stems, and suffixes." Savory recognizes the ignorance of the derivations of technical terms as a problem facing English-speaking students in learning biology, he says:

A new problem in the teaching of Biology that is reaching proportions that are by no means negligible is that of the student who cannot remember the words in which the science is expressed, who cannot apply them correctly because he does not grasp that precise meaning, and who sometimes even finds a difficulty in spelling them.

The cause of all these troubles is the same: it is ignorance of the derivations of our technical terms; ignorance, in fact, of Latin and Greek.

Savory believes that some knowledge of Latin and Greek helps overcome this problem, he says: "This new scientific vocabulary, which falls so strangely on the ears of many young biologists, can only be appreciated and used with accuracy and precision where there is some knowledge of the beautiful languages from which it has arisen."

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39 Ibid.
The writer does not advocate the idea that students all over the world should study Latin and/or Greek. What he is driving at is twofold: (1) English-speaking students have nearly the same difficulty as any other international students in understanding the precise meanings of technical terms and (2) understanding and using the technical terms with accuracy is facilitated through the study of the origin of the technical terms. The writer believes that technical terms should be transliterated or adapted, with an explanation of their origin.

Third, to find the correct and precise rendition of a term is a time and effort consuming task. Even considerable effort might lead to inaccurate or vague rendition. So, instead of wasting time and effort in attempting to render these terms in another language with probable vagueness, it would be better to transliterate or adapt them giving attention to their etymology.

In this discussion we have dealt with the first type of problems facing the translator: "Lack of Equivalence." The second type of problem is illustrated below:

**Idiomatic Problems**

Webster's Dictionary defines the word "idiom" as

1. the language or dialect of a people, region, class, etc. 2. the usual way in which the words of a language are joined together to express thought. 3. an accepted phrase, construction, or expression contrary to the usual patterns of the language or having a meaning different from the literal. 4. the style of expression characteristic of an individual. 5. a characteristic style, as in art or music.
Funk and Wagnalls Standard Dictionary gives the definition of "idiom" as

1. a use of words peculiar to a particular language, especially if it be an irregularity; a form of speech characteristic of a writer or a tongue. Idiom or idiomatic phrase is a phrase the meaning of which cannot be deduced from its component parts: as to bring about (accomplish) to put up with (tolerate, endure), etc. Idomatic phrases should be carefully distinguished from figurative phrases, or phrases in which the words have their connections and relations but are used figuratively; as to break the ice; to carry coals to Newcastle; to ring the changes on, to set a trap for; to stand in one's own light.

2. a peculiar speech or jargon; a language or dialect used by a special class; as the Gipsy idiom.

3. The peculiar genius or spirit of a language.

From these definitions, we can see that the word idiom embraces "all the patterns of linguistic expressions that are peculiar to the language, and the style of the individual writers."

Are idioms translatable? Is it possible to preserve the author's style in translation? are two questions on which scholars have debated for a long time. So let us take the first question:

Are idioms translatable? Knox observes that, "... some idioms when translated into a different language lose all their meaning, and serve to darken interpretations." He also believes that, "Metaphors, no less than idioms, have their difficulty for

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the translator. Sometimes their meaning is transparent enough; the
scribes and Pharisees, for example, "sitting in Moses' seat,"
although the picture which the imagination conjures up us one of
extreme discomfort. But is any picture conjured up at all, to the
ordinary English mind, by 'a horn of salvation.'"\(^{43}\)

Idioms of a language are difficult to translate because
"each language gives its own twist to the more intimate ideas it
tries to express"; to understand the meaning of an idiom necessitates
the familiarity of the people's way of expressing meanings, their
customs, their traditions, etc. For example, a Frenchman might say:
"Vous venez avec moi? A la bonne heure," which if translated
literally gives: "You are coming with me? At (or to) the good
hour." An idiomatic translation of this statement gives, You are
coming with me? Fine! To translate this type of idiom requires a
high degree of familiarity with the foreign language. We move next
to the second type of idioms, where familiarity with the people's
culture is essential for translating them. For example, a good
translation of the English expression "as white as snow," into
Arabic will be "as white as milk," simply because snow does not fall
in Egypt.

\(^{43}\) \textit{Ibid.}, p. 82.
The third type of idiom includes those peculiar to a certain culture, nevertheless, intelligible if literally translated into another language. For example, "Al Sabr Moftah el farag" is a popular Arabic idiom, which when translated into English reads: "Patience is the key to prosperity."

As a rule, idioms are usually translatable. Sometimes one must note the specialized meaning of the idiom in the culture where it developed. Now let us move to the second question:

Is it possible to preserve the author's style? Style is defined by Savory as follows:

Style is the essential characteristic of every piece of writing, the outcome of the writer's personality and his emotions at the moment, and no single paragraph can be put together without revealing in some degree the nature of its author.\textsuperscript{44}

Maymi states that style is the idiom of the writer, "it is a function of his cultural background, personal characteristics, nature of the topic, and his vocabulary."\textsuperscript{45}

Many scholars condemn literal translation as a means of preserving the style. Bates observes that "defects come from following the order of the words of the original too closely and employing words which are equivalents etymologically but are not so in usage or meaning."\textsuperscript{46}

\textsuperscript{44} Savory, The Art of Translation, p. 54.
\textsuperscript{45} Maymi, op. cit.
\textsuperscript{46} Bates, op. cit.
Knox believes that all translation is a kind of impersonation; make a success of that, and style and idiom will follow. He explained this idea when he said:

A good translation does not demand a mechanical reproduction of detail; but it does demand a certain identity of atmosphere . . . Mr. Day Lewis has said a wise word on this subject: To catch the tone of your original, there must be some sort of affinity between you and him. Without this, 'you cannot reach through the words and thoughts of your original, and make contact with the man who wrote it.' Woodhouselee puts it even more strongly when he tells us that the translator 'must adopt the very soul of his author, which must speak through his organs.' He must, in fact, get inside somebody else's skin before he undertakes the rendering of a single sentence. This is not always easy; . . . It is not a simple process to put yourself inside the skin of a young French female Saint. But you have got, somehow, to sink your own personality and wrap yourself round in a mood, whenever you sit down at your writing-table for such work as this. All translation is a kind of impersonation; make a success of that, and style and idiom will follow.47

Maymi believes that a translation should reproduce the style of the original as closely as permitted by the idiom of the language of rendition.

The Italian contributors to the Unesco report, Scientific and Technical Translating, observes that the translator should not distort the author's emphasis; they say: 'The translator's responsibility is, however, a delicate one; for his duty to be untrammelled by the author's wording does not license him to distort by one hair's breadth the author's intended meaning or the author's emphasis.'48

48 Unesco, op. cit., p. 31.
The problem of preserving the author's style in translation while conveying the meanings of the original is not yet solved. However, as it appears from the preceding discussion the emphasis is put first on transferring the meanings, then on preserving the style. In the writer's opinion, the problem of preserving the style should be looked at from a different point of view.

As we go back to our general principle in translation we can find a more satisfactory answer. This principle states that the nature of the content, the purpose of translation, and the intended readers of the translated version determine the way into which a certain text should be translated.

According to this principle the writer believes first, that preserving the author's style in translating scientific materials is not an absolute necessity because what we are interested in is the knowledge of scientific principles and laws. Improving the original - when the author is inaccurate or vague - is advisable, as it is stated in the Unesco report,

"... a technical translation, to be satisfactory, ought where necessary, to be 'better than the original.' By this is meant that obscure points in the original, or those which are not elucidated in sufficient detail because in the country of origin they are common knowledge, should be cleared up in the translation and suitably amplified, either in the body of the translation or in a footnote, clearly labeled 'translator's note.'"\(^9\)

\(^9\)Ibid., p. 32.
Second, the writer believes that in translating literature the purpose of translation determines whether or not any attention will be given to the style. If the substance is considered to be the most significant, then attention should be given to accurate rendering of the substance disregarding the style. However, if the author's style is considered significant, then the translator should strive to reproduce the author's style without obscuring the meanings of the original.

To get a good translation of any piece of work is impossible without a good translator. Thus, it is important to discuss the qualifications of a good translator before ending our discussion on principles of translation.

Qualifications of a Good Translator

Savory determined two qualities needed in a translator:
(1) linguistic knowledge of the foreign language somewhat different from that possessed by one who can read it readily but makes no attempt to put a rendering on paper, (2) a degree of sympathy and familiarity with the subject matter that is being translated.

Sir Stanley Unwin stated two qualities of a good translator:

50. Savory, The Art of Translation, pp. 32-34.
(2) ability to write one's own language. He believes that, "The greater the literary merit of the original, the greater is the need for literary gift and practice on the part of the translator, to reflect and re-create the unique literary style and content of the original." 52

The Unesco notes these essential qualifications of a good translator:

There seems to be general agreement, . . . as to the qualities a perfect translator of scientific or technical matter from language X into language Y would need to combine. First, since it is impossible to translate what one does not understand, he should have the knowledge, reasoning power and experience necessary to apprehend unmistakably the ideas the original author intended to express in language X. Secondly, he should have 'linguistic sensibility' enabling him to find the nearest equivalences of expression as between X or Y for these ideas, to assess the degree of imperfection of such equivalences and to compensate that imperfection by the introduction of qualifying phrases or shifts of emphasis. Thirdly, he should be able to compose these expressions into a faithful version of the original ideas in language Y. 53

These qualifications can be summarized in three points: a good translator of scientific materials should be a scientist, a linguist, and an author. Holmstrom emphasizes the quality of understanding the subject matter, he says:

52 Ibid., p. 2.

53 Unesco, op. cit., p. 38.
It goes without saying that his translator responsibility is to make sure, as exactly as he can, what the term means, for nobody can properly translate what he does not understand, and if he lacks even the marginal knowledge of the subject matter necessary to puzzle it out, it is scarcely honest for him to undertake the job at all.\textsuperscript{54}

According to the preceding studies the qualities required in a good translator are -

1. Satisfactory knowledge of the foreign language.
2. Ability to write one's own language.
3. Understanding of the subject matter under translation (in translating scientific materials).
4. A high degree of sympathy (in translating literary materials).

In addition to these qualities, Sir Stanley Unwin\textsuperscript{55} points that translations should always be into one's mother tongue. Bates states that, "if there can be said to be any 'rule' in translation, it is that a man can only translate into his own language."\textsuperscript{56}

To the preceding five qualities, the writer would like to add an important sixth quality: familiarity with the customs, habits, social standards, technical advancements, hopes, fears, etc., of the people of the country of origin. This is because language is a

\textsuperscript{54} Holmstrom, \textit{op. cit.}
\textsuperscript{55} Unwin, \textit{op. cit.}
\textsuperscript{56} Bates, \textit{op. cit.}, p. 115.
function of these variables, and the translator should be familiar with them. This familiarity can only be achieved by planned visits and study trips to the country of origin, as it has been stated regarding translators of scientific materials:

In so far as translating depends on having wide technical knowledge and experience Mr. E. W. Ill (Switzerland), who is a consultant on patents, stresses the importance of such translators being able to keep in touch with progress not only by reading books and journals but by attending conferences and travelling abroad. Dr. G. T. Kale (India) comments on this point that its urgency is especially felt in India: 'In general, it seems essential that a recognized translator be given facilities for going to the country of the language he is translating at least once in five years.'

Sometimes it is difficult to find these qualities possessed by one translator. The lack of efficient translators brings us to the possibility of machine translation.

Machine Translation

Andrew D. Booth reports:

The possibility that a machine could be made to translate first arose during discussions which took place in 1947 between the present author and Warren Weaver of the Rockefeller Foundation. The motivation for these discussions was the fact that high speed digital calculators were coming into existence about that time, and that the mathematicians concerned with the design and use of these machines were trying to find applications wherein the new devices would show their superiority to the well-known business and accounting machines which were their predecessors.


Until today machine translation is under experimentation.

Savory explains how the machine works as follows:

The first necessity is to convert letters and hence words into numbers, and the function of the machine is to deal with the number fed into it so as to produce the number which corresponds to the translation of the word. This number is received by a teleprinter which then types out the word, in what is described as the 'target' language. 59

In 1954 Holmstrom gave an example of the achievement of a mechanical translator. This was quoted by Savory as follows:

First, the original text to which the pre-editor had added vertical lines at 'loci of decomposition': it will be seen that these mark off the endings which denote plurals and tenses:

Il n'est pas étonnant de constater que les hormones de croissance agissent sur certaines espèces, alors quelles sont inopérantes sur d'autres, si l'on songe à la grande spécificité de ces substances.

Secondly, the mechanical translation:

V not is not/step astonished V of establish V that/which? V hormone M of growth act M on certain M species M, then that/which? V not operate M on of other M if V on dream/consider Z to V great V specificity of those substance M.

Here the interpolated symbols have the following significance to the post-editor:

V = vacuous or meaningless
M = dual or plural
Z = Unspecific

59 Savory, The Art of Translation, p. 150.
From this the post-editor, a specialist in the subject matter but not in the original language, produces the final version:

It is not surprising to learn that growth hormones may act on certain species while having no effect on others, when one remembers the narrow specificity of these substances. 60

Translating machines can be of help in translating scientific and technical materials for two reasons: (1) About 1000 technical words specific to the subject at hand, and a similar number of words of general linguistic usage, would make possible the translation of over 90 per cent of the given text; 61 (2) the equivalent of each technical or scientific term in another language is invariable. 62 However, it is difficult to use the translating machine in translating literary material because of its limitation in producing the artistic and aesthetic aspect of literary material. 63 Perhaps with the development of a translating machine this limitation can be overcome. Savory emphasized the infancy of mechanical translation when he said:

... it is scarcely out of the nursery. The first nine years of the evolution of the aeroplane did not foreshadow the jet-driven breakers of the sound barrier that exist today. The prospects for mechanical translation should be considered with this in mind. 64

60 Ibid., pp. 151-152.
61 Ibid.
62 Ibid.
63 Ibid., p. 1149.
64 Ibid., p. 152.
Summary

Translation is an indispensable means through which interchange of culture is effected. The greater part of scientific literature is inaccessible to those who can benefit from it because of language barriers. Translation can help make these materials available. In spite of its importance, little writing exists on the art of translation. Among these one can find many contradictory principles, for example, translators have not agreed on defining the word faithful as applied to translation.

The governing principle of translation is that the nature of the content, the purpose of translation, and the intended user of the translation determine whether the translation will be literal, paraphrasical, idiomatic or partial.

Specific problems in translation are grouped under two categories: Lack of Equivalence and Idiomatic Problems. By "lack of equivalence" is meant two things: (1) unidentical meanings attached to two corresponding words in two languages, (2) non-existent words in the language of rendition corresponding to words in the original language. Faced with these problems, the translator has to choose between three alternatives: (1) transliteration, (2) adaptation of the foreign word according to the phonetic patterns of the language of rendition, or (3) the coining of new words. Technical terms of Latin and Greek origin and non-existent in the language of rendition should be transliterated or adapted.
The term "idiom" embraces all the patterns of linguistic expressions peculiar to the language, and the style of the author. Three types of idioms exist: (1) in the first type - translation can be easily done if the translator has a high degree of familiarity with the foreign language, (2) in the second type the cultural background related to the idiom is essential for understanding the idiom, (3) in the third type the cultural background is not essential for making the idiom intelligible in the language of rendition.

In literary translation when the style is significant the translator has to strive to preserve the style without obscuring the meaning. However, in technical translation the style is less important than the clear and accurate rendition of the content. Improvement over the original is advisable whenever the rendition looks vague.

Six qualities are reported to be essential for a good translator:

1. Satisfactory knowledge of the foreign language
2. Ability to write one's own language (the translator is an author)
3. A high degree of sympathy - in translating literary materials
4. Understanding the subject matter under translation -- in translating scientific materials
5. Familiarity with the country of the original
6. Translation should be only into the translator's own language

Translating machines can be of help in translating scientific materials, but not in translating literary materials. With the development of translating machines this limitation may be overcome.
The writer believes that the principles of translating written materials discussed in this chapter are not exclusively adaptable to film translation for two reasons: (1) the verbal track is only one part of the motion picture language, the picture plays a significant role in conveying the film's message; (2) the comprehension time on the screen is limited by the scene length, thus the audience should understand the translation of the verbal track without resorting to dictionaries or footnotes.*

In the following chapter the writer presents a study of the principles of translating the verbal element in the motion picture, and a test for the hypothesis: the verbal element in the motion picture language requires methods in translation different from those of the written language.
CHAPTER VI
THE SOUND TRACK IN THE PROCESS OF FILM ADAPTATION

In a sound motion picture the sound track is usually composed of three elements: verbal language, sound effects, and music. This chapter studies the place of these elements in the process of film adaptation.

In the first part of this chapter, principles of translating the verbal component in the motion picture will be presented. Next we shall test the hypothesis that motion picture language requires different methods of translation from those of the written language.

In the second part of this chapter the writer presents a discussion on the place of sound effects and music in the process of film adaptation.

Principles of Translating the Verbal Element in the Motion Picture

The verbal element in the motion picture is heard, read, or both. The first part of the following discussion will present principles for translating the spoken part of the verbal element.

Principles for translating the spoken verbal element. In translating the spoken part of the verbal element in motion picture the important factor of the relation of the spoken word to the on-screen action must be considered. Scholars on film translation have noted the importance of preserving lip synchronization in the translated film. In fact, the relation of the spoken word to the
on-screen action involves more than lip synchronization. If the number of words in the translated version is not equal to the number of words in the original narration, we are then in danger of losing screen synchronization. By scene synchronization is meant the matching between the on-screen action, and the off-screen narration. For example, as illustrated in Table 20 in the translated version of Alcohol and the Human Body, the off-screen narration corresponding to scenes 16-19 does not match the on-screen action. Therefore, the factor, "the relation of the spoken word to the on-screen action," dictates the first two principles of translating the spoken verbal element of the motion picture:

1. In scenes where dialogue is used, lip synchronization should be kept in the translated version.

2. In scenes where off-screen narration is used, scene synchronization should be kept in the translated version.

Preserving lip and scene synchronization in the translated film requires adapting the original spoken verbal element. To preserve lip synchronization in the translated version, the word in the language of rendition, should be selected not only to give the exact meaning of the original, but also to match the original lip movements in order to create in the foreign audience an illusion that the original actor is speaking in their language. And, this cannot be achieved unless the spoken verbal element is adapted and not literally translated.
<table>
<thead>
<tr>
<th>Scene</th>
<th>Original English Version</th>
<th>Translated Arabic Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Distillate</td>
<td>including a relatively high percentage of alcohol. As the vapors cool, they change to liquid and drip from the distillery. Whiskey ordinarily contains about forty-three per cent or more of alcohol.</td>
<td>As the vapors cool, they change to liquid and drip from the distillery. Whiskey ordinarily contains about forty-three per cent or more of alcohol.</td>
</tr>
<tr>
<td>17. Alcohol in Whiskey</td>
<td>Whiskey ordinarily contains about forty-three per cent or more of alcohol.</td>
<td>When we compare the three kinds of beverages, we see that whiskey contains more than either beer or wine.</td>
</tr>
<tr>
<td>18. Content of Beverages</td>
<td>When we compare the three kinds of beverages, we see that whiskey contains more than either beer or wine. But in each of the three beverages, the intoxicating part is always the same substances -- ethyl alcohol.</td>
<td>But in each of the three beverages, the intoxicating part is always the same substances -- ethyl alcohol.</td>
</tr>
<tr>
<td>19 Beaker of Alcohol</td>
<td>is always the same substance -- ethyl alcohol.</td>
<td>By using animated drawings we will see what happens to alcohol in the body.</td>
</tr>
</tbody>
</table>
Adaptation of the spoken verbal element is essential, too, to preserve scene synchronization. A literal translation of the original narration might give us a text that takes a longer period to read than the original with a resultant loss of scene synchronization. In such a case paraphrasing should be used to get a shorter text that will match the on-screen action.

On the other hand, if the translated narration is shorter than the original, selection should be made between two alternatives: either the narrator pauses after reading the translated lines until the beginning of the next scene, or elaborates on the translation. The writer is inclined to recommend the first alternative simply to keep the rate of delivery in the translated version to a minimum. However, if elaboration of the original is needed to give a vivid explanation of the picture to the foreign audience, then the second alternative should be used.

Preserving lip and scene synchronization is not the only reason for adapting the spoken verbal element. There are five additional justifications for adapting the spoken verbal element: (1) to overcome the problem of "lack of equivalence," (2) to make the translated text suitable to the vocabulary level of the intended audience, (3) to improve the rate of delivery, (4) to keep the cost of "dubbing" to a minimum, and (5) to add the native flavor to the translated narration. These justifications will be discussed below.
1. Adaptation of the spoken verbal element to overcome the problem of "lack of equivalence". As has been indicated in Chapter V, Principles of Translating Printed Materials, by lack of equivalence we mean (1) unidentical meanings attached to two corresponding words in two languages and (2) non-existent words in the language of rendition corresponding to certain words in the original language.

Since meanings attached to two corresponding words in two languages are, in some cases, unidentical, a literal translation fails to convey the intended meaning of the original film. Illustrations of this fact are given on page 147.

Faced with the problem of lacking words in the language of rendition that correspond to certain words in the original language the translator of written materials has to choose between three alternatives: (1) transliteration, (2) adaptation of the new word according to the phonetic patterns of the language of rendition, or (3) the coining of new words. No matter which alternative is chosen, the result will be the same: new words are introduced into the language of rendition. In translating printed materials the number of such new terms is not limited as in the case of translating films. Through the use of footnotes the translator can explain the origin and the meaning of the new words. Further the reader has the chance to read the materials more than once to get the meaning. However, in translating the verbal element in the motion picture there is a "time" limitation. In a film where the spoken element should be immediately understood when heard, increasing the number and frequency of new words hinders
conveying the film's message. The writer was unable to discover any study to determine the number of new words (new to the language of rendition) that can be introduced in a film of a certain length. Nevertheless, it should be noted that the number of these new key words in a film should be kept to a minimum and these should be carefully introduced. To do this, frames in the language rendition explaining the meaning and the origin of the new terms can be introduced at the beginning of the film. However, constructing such frames adds to the cost of dubbing. To avoid this additional cost, the new terms, their origin and their meanings, should be pointed out in the teachers' guide providing that the teachers explain them to the students before seeing the film.

From the above presentation, to overcome the problem of "lack of equivalence" and at the same time help communicate the film's message adaptation of the spoken words should be resorted to.

2. Adaptation of the spoken verbal element to suit the foreign audiences' vocabulary level: A literal translation might lead to a translated text that does not suit the vocabulary level of the audience. In such a case, the original text should be adapted with regard to the vocabulary level of the foreign users. Simple words should replace the difficult words of the original.

It is logical at this point to indicate the necessity for a formula to measure the vocabulary level of the foreign audience.
3. Adaptation of the spoken verbal element to improve the film's rate of delivery. It was indicated before that the number of words delivered every minute in a film is an important factor in communicating the film's message. According to this fact the rate of delivery of the translated film should be in the appropriate range. In the English language the recommended rate of delivery lies between 100 and 130 words per minute. This range does not have to be the same in other languages. As a matter of fact it was found that the number of Arabic words in the translated versions of the films used in this study is less than the number of English words in the original. Studies are needed to determine the appropriate rate of delivery in films in Arabic and other foreign languages.

4. Adaptation of the spoken verbal element to keep the cost of "dubbing" to a minimum. Some educational films use dialogue in the process of presenting the verbal content of the film. Reproducing the original dialogue in the language of rendition costs more than if the dialogue is paraphrased and narrated. Such a cost is justifiable if the translated dialogue adds interest, arouses curiosity, and presents some basic parts of the verbal content of the film. However, if the translated dialogue does not add to the success of the film's communication, or if they seem absurd to the foreign audience paraphrasing should be resorted to.

5. Adaptation of the spoken verbal element to add the native flavor. Sometimes a literal translation of parts of the original text conveys the intended meaning. However, adapting these parts to
achieve the native flavor of the language of rendition is advisable. A good example of this technique is the adaptation of the mother's instruction to her child in the film Helping the Child to Face the Don't's. An educational film translated from English into Arabic should sound as if it was produced in Cairo, not in Chicago, and vice versa.

So far we have discussed the principles of translating the spoken verbal element. Now, we move to study the principles of translating the written verbal element.

In the films under study written titles were used in three films, Body Defenses Against Disease, Endocrine Glands, and Helping the Child to Face the Don't's. In the Arabic version of Body Defenses Against Disease, the written title remained in English, and the Arabic narrator read a translation of the English text. It would have been better if an Arabic written title replaced the English to assure better film communication. It is distracting to see an English text on the screen and hear an Arabic translation of this text at the same time. There is thus a sort of rivalry between the two media—spoken Arabic and written English—and the message is partially lost.

Substituting Arabic written titles for English titles was followed in translating the film Helping the Child to Face the Don't's. However, in the Arabic version of Endocrine Glands written titles remained in English. To assure better understanding of the film's message written titles should appear in the language of rendition.
Labels appeared in English in the Arabic versions of the films used in this study. Translation of the labels was heard in Arabic only when the original narration included a reading of the labels.

If the intended foreign audience understands English, and the words used in labeling are within their English vocabulary level, then there is no harm if the original frames are left the same in the translated version. However, leaving labels untranslated when the foreign audience does not understand the original language hinders the success of film communication.

It is expensive to produce a new sequence using native labels instead of the original labels. Subtitling labels can be resorted to under one condition — if the frame does not appear overcrowded. As a rule frames having more than two labels should be replaced by new frames with labels in the language of rendition.

Summary

The principles of translating the verbal element in motion picture can be listed as follows:

A. Principles of translating the spoken part of the verbal element.

1. Dialogue and off-screen narration should be adapted in order to —

a) Preserve lip synchronization in the translated version in scenes where dialogue is used.
b) Preserve scene synchronization in the translated version - i.e., the on-screen action and the off-screen narration should match.

c) Help overcome the problem of lack of equivalence.

d) Avoid the use of difficult words in the translated version.

e) Make the vocabulary level of the film appropriate to the intended foreign audience.

f) Keep the rate of delivery of the translated film in the appropriate range recommended by research.

g) Add the native flavor to the translated narration.

2. Reproduction of dialogue in the translated version -

a) If the dialogue used in the original adds interest, arouses curiosity and presents basic parts of the verbal content of the film, then it should be reproduced in the language of rendition.

b) Paraphrasing and narrating the original dialogue is justifiable if the translated dialogue does not add to the communicative value of the film, or if it seems absurd to the foreign audience.

B. Principles of translating the written part of the verbal element:

1. Written frames in language of origin should be replaced by written frames in the language of rendition.
2. Frames having one or two labels should be subtitled.

3. Frames having more than two labels should be replaced by new frames with labels in the language of rendition since subtitling the labels might overcrowd the frame.

To examine the hypothesis that motion picture language requires different methods of translation from those of the written language as stated in Chapter I, Introduction, we will compare in Table 21 the principles of translating written materials and those of translating the verbal element of the motion picture.

An analysis of this table will sustain the hypothesis that motion picture language requires different methods of translation from those of the written language.

**Sound Effects and Music in the Process of Film Adaptation**

In the films used in this study sound effects were used in four films: *Care of the Skin, Endocrine Glands, Home Nursing,* and *The Ears and Hearing.* In the translated versions of these films, sound effects were only preserved in *The Ears and Hearing.* As we study these four cases we hope to come out with some principles indicating the place of sound effects in film translation. Here are some examples of the use of sound effects.

In the English version of *Care of the Skin* a hand is seen knocking at a door. The accompanying sound effect - the only sound effect used in this film - is heard. In the Arabic version the sound effect was eliminated. Instead of that, the Arabic narrator said, "Someone
Table 21
A COMPARISON BETWEEN THE PRINCIPLES OF TRANSLATING THE VERBAL ELEMENT IN MOTION PICTURES AND OF PRINCIPLES OF TRANSLATING WRITTEN MATERIALS

<table>
<thead>
<tr>
<th>Translation</th>
<th>Verbal Element in Motion Picture</th>
<th>Printed Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methods of translation</td>
<td>The verbal sound track should be adapted</td>
<td>The purpose of the translation, the content, and the intended users determine the method of translation.</td>
</tr>
<tr>
<td>Vocabulary Level</td>
<td>The vocabulary level should suit the intended foreign audience</td>
<td>The purpose of the translation, the content, and the intended users determine the method of translation.</td>
</tr>
<tr>
<td>Number of words in the translated text</td>
<td>The number of words in the translated text should yield to an appropriate rate of delivery.</td>
<td>There is no limitation on the number of words in the translated text.</td>
</tr>
<tr>
<td>New terms in the translated text</td>
<td>The number of new terms should be kept to a minimum. Explanation of the meanings and origins of these terms should be made before viewing the film.</td>
<td>There is no limitation on the number of new terms. Through footnotes new terms can be explained.</td>
</tr>
</tbody>
</table>
is knocking, and Virginia turns around to see who is knocking." By eliminating sound effects in the translated version the cost of dubbing is decreased. However, in this particular film, an element of interest is lost. Hearing a knock at the door, while seeing the hand knocking, for a 5th grade child must be more realistic hence more interesting than hearing a narrator saying "someone is knocking." In addition the sound of knocking at the door, is an important cue: "someone is interrupting Virginia, but she will wait until she rinses herself."

From this incident we can theorize that (1) If sound effects add meaning, interest and realism, then they should be preserved in the translated film. (2) If sound effects act as an important cue in the film learning process, then they should be kept in the translated version.

That sound effects should be kept in the translated version when they act as an important factor in the film's learning process is well illustrated in the film The Ears and Hearing. In this film the sound effects used were a necessity. The narrator speaks of the different sounds we hear, and it is natural to present a sample of such sounds.

If we apply the two principles stated above to the film Endocrine Glands, we can say that eliminating the sound effects in the translated version did not harm the communicative value of the film. Sound effects were used twice in the English version of this film. First, sound of liquid dropping in a beaker accompanied the scene of
a biologist working. Second, the sound of machines accompanied the scene of a factory where insulin was produced. Although sound effects in both cases were meant to add realism, they were insignificant in communicating the film's message because in this film they did not act as an essential factor in the learning process.

In *Home Nursing* in scene 6 a sound of a "cough" was used. In the translated version this sound was eliminated. Seeing Ruth coughing and knowing from the first scene in the film that she is acutely ill of pneumonia, the sound of coughing does not really add anything to the understanding of the film's message.

In other words, if the sound effect is redundant, its elimination is possible without harming the effectiveness of the medium.

To summarize, the principles governing the use or elimination of sound effects in translating a film follow:

1. In films intended for children, sound effects that add interest and realism should be preserved in the translated version.
2. When sound effects are an important cue in the film's communication process, they should be kept in the translated versions.
3. If sound effects are redundant they can be eliminated in the translated versions.

Now we move to study the principles governing the use of music in the translated versions.
In the films used in this study, music was used in three films: Care of the Skin, The Ears and Hearing, and Home Nursing. In the translated version of Care of the Skin music was omitted. The function of music in the original was rather "coloristic." Since we do not have enough evidence of the educational role of such music, then there is no justification for the additional cost of reproducing music in the translated version.

However, when music is used as an important cue in communicating the film's message, it is absolutely necessary to keep music in the translated version. For example, in the last scene of the film The Ears and Hearing, an audience was shown. Music accompanied the narrator while he was saying: "Since next to sight hearing is our most important sense, it is fortunate that for most of us our ears will serve well throughout life, helping us understand and enjoy our environment." In this particular incident music is significant, since hearing good "music" is a great enjoyment.

Therefore, if music does not play a role in communicating the film's message, then it can be eliminated in the translated version.
CHAPTER VII

THE PICTURE ELEMENT IN THE PROCESS OF FILM ADAPTATION

In Chapter II, *Motion Picture Language*, it was indicated that picture, verbal language, sound effects, and music compose the basic unit of the motion picture language. By virtue of the visual primacy phenomenon the picture plays the greatest role among the other three elements in film communication. However, in using films on an international basis there is an implied assumption that the picture itself can be easily understood by people of different nations.

Research studies do not support such an assumption. On the contrary, understanding the picture is a function of the cultural background. Pictures are abstractions and contain cues. If viewers understand these cues they can get the meaning out of the pictures, but this understanding depends on the cultural background.

Seth Spaulding, after working with rural Latin Americans, recommends that, "Visual cues, . . . must vary according to the cultural background of the intended audience. In the United States, for instance, a milk bottle will universally be identified, while in many other countries it would be unknown."¹

Since the picture plays a significant role in motion picture communication it is extremely necessary to consider the picture

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itself in the process of translating films. We cannot expect automatic understanding. Therefore, to make a film intelligible to a foreign audience we must do more than translate the verbal sound track. Adapting the picture to convey the intended meaning to the foreign audience is as vital as translating the verbal sound track. Accordingly "adaptation" is a more accurate term than "translation" to describe the process of making a film intelligible to a foreign audience.

In translating the verbal sound track, we indicated the necessity for adapting the verbal element to suit the intended audience -- in terms of the vocabulary level and rate of delivery. In adapting the picture we shall need a yardstick to measure the suitability of the picture to the foreign audience. A formula to measure the "picture literacy" is indispensable. We do not expect that one formula would be applicable to different cultures.

In the films used in this study no change in picture has been recorded in the translated versions. Keeping the picture element in the translated versions of these particular films the same as in the originals is not criticized unfavorably by the author for three reasons:

1) The films portrayed familiar things in familiar situations for both the English and Arabic speaking students.

2) In these films there has not been any artistic manipulation of reality that might be understandable to American students but unintelligible to Arabic students.
3) The intended American audience and the intended Arabic audience can be considered as possessing the same degree of picture literacy.

The importance of considering the level of picture literacy in film translation is vital when there is a wide gap between the background of the intended foreign audience and that of the original audience. How to determine the level of picture literacy of an audience is an open area for research. However, on the basis of available data on the picture as a communicational medium we can theorize that there are four levels of picture literacy, each of which will be discussed below.

1. Ability to Recognize Concrete and Familiar Things in an Exact Likeness of Them

People below this level of picture literacy are unable to recognize familiar things portrayed in a picture. For example:

Robert Wagner, of the Department of Photography, of the Ohio State University, tells of taking a snapshot of a shoe-shine boy in Ankara. It was an excellent likeness, and when it was presented to the Turkish lad he was immensely pleased. But at first he did not recognize it as a likeness of himself. He had never seen a photograph of himself.²

The reason behind the people's inability to recognize familiar things portrayed in a picture is that the picture of a

thing is not the thing itself—it stands for or represents the thing. Although a picture can be an excellent likeness of reality, it has certain points where it does not correspond with reality. The size is different; color, if present, is not identical with reality; a picture of a thing does not show the whole context in which the real thing exists. Therefore, people have to learn to read a picture even if it is an excellent representation of reality.

2. Ability to Recognize the Difference between Reality and its Picture

Holaday and Stoddard reported that children tend to accept the errors in a movie as facts. It seems that in the early stages of their motion picture experience, adults, too, accept what they see on the screen as real. This explains why people were frightened when they saw the picture of a cowboy firing a gun at them in The Great Train Robbery. It also explains why primitive audiences get panicky if they see a train coming in their direction, and why even motion picture literates react irrationally when they watch a 3-d film.

All these phenomena point to the fact that people at the early stages of motion picture experience accept what they see on the screen as true. In some cases their reaction is overt as noted in the following incident:
In Tokyo, during a showing of Nichiren and the Great Mongol Invasion, the manager of a movie theater has to beg Nichiren Buddhists in the audience to stop throwing coins -- an act of worship -- at the fragile Cinema-Scope screen.3

3. Ability to Recognize Concrete Things in a Distorted Representation

Pudvokin, an eminent scholar of the motion picture stated that, "To show something as everyone sees it is to have accomplished nothing." In Chapter II, Motion Picture Language, we have indicated how the movie maker manipulates reality to evoke particular concepts. Pictures of things can be taken from a very high or a very low point of view to show the spectator what the movie maker wants him to see. Close ups, long shots, medium shots, etc. are used to illustrate certain ideas to the viewer. In short, the pictures used in the motion picture are not usually an excellent point-by-point likeness of reality.

It seems that there is a level of recognizing familiar things in a distorted representation. People below this level usually misinterpret the picture. For example, the close-up of a mosquito in the film The Mosquito was recognized by Africans as depicting

3 Time, Vol. LXXII, No. 18, Nov. 3, 1958, p. 11.

4 I. V. Pudvokin, Film Technique and Film Acting, New York: Leer, 1949, p. 64.
the real size of the American mosquito. Don Williams reports a similar incident where the audience misinterpreted the close-up of a rat. He says:

At one showing we had a picture on rats and mice. The film cuts in quickly to a closeup of a mouse to show how dirty and filthy he is. We stopped the picture right there for a big argument on "how big is a mouse?" The argument was finally settled by the people themselves, in this manner -- that the picture before had shown how much food there was in America, and if they had that much food for the people, they just throw a lot of it away, and the mouse could get as big as he wanted to. If their mice had plenty to eat they'd get big too.5

4. Ability to Understand the Picture When Some of Its Cues are Misrepresented

People below the level of being able to understand the picture when some of its cues are misrepresented either interpret the picture literally, or cannot understand the picture at all. Spaulding found out that "People in rural areas of Latin America are extremely literal in their interpretation of depicted action."6 He used the two pictures shown on the next page. In Figure 15 the cooperation between the members of the family in cutting a tree is portrayed.


6 Spaulding, op. cit.
Figure 15: Of Seven Viewers, Three Mentioned Danger in Cutting Tree So That It Falls Toward the Family

Figure 16: Of Seven People Seeing the Illustration, Three Thought That Something Was Wrong With the Leg of the Cow; One Thought That the Boy Was Cutting the Leg Off
However, some of the viewers thought that, "... the farmer is trying to kill his family." The viewers were unable to overlook a misrepresented cue in the picture: the tree was falling toward the family.

Regarding Figure 16, it was found that "Of seven people seeing the illustration, three thought that something was wrong with the leg of the cow; and one thought that the boy was cutting the leg off."8

Therefore, people below this level of picture literacy cannot get the intended meaning from the picture if some of its cues are misrepresented by the producer.

To understand the motion picture, people must achieve the indicated four levels of still picture literacy. However, achieving these levels is not sufficient for wholly accurate understanding of the motion picture. There is a fifth level peculiar to the motion picture medium. This is the ability to understand the time-space relationship in the motion picture.

The spectator of a motion picture is compelled to free his perceptive capacity from ordinary time restrictions. In motion pictures the time factor in any operation or series of events can be magnified or contracted. This manipulation of time in the motion

7 Ibid.

8 Ibid.
picture must be appreciated by the viewers otherwise they will not understand the picture. For example, Knowlton and Tilton in a study on the use of motion picture in teaching history, found that "... historical photoplays tended to interfere with the development of the pupil's sense of time relationships, and that groups who saw no film were superior to film groups on verbal tests designed to measure the pupils' understanding of this relationship."\(^9\)

Primitive motion picture audiences tend to accept the time element in the motion picture as real. Accordingly, if the time element in the motion picture is not identical to reality, misconceptions and/or confusion occur. Hoban reported that, "... younger students complain that they cannot understand how plants grow so quickly, or they assume that such rapid growth actually takes place in some plants."\(^\text{10}\)

Whether viewers get confused or accept the time element as representative the result is the same: failure to communicate the film's message. To be able to understand the time-space relationships in the motion picture requires a sufficient degree of motion picture experience, and an understanding of the techniques used in contracting and/or magnifying real action on the screen.


We conclude, therefore, that it is inaccurate to assume that a picture, especially a motion picture, is universally understood. Even if people from different nations possess the noted levels of motion picture literacy, there is still the effect of the specific cultural background. Since picture cues are interpreted in terms of this background, there is the possibility of misinterpreting depicted action in the picture.

There is need for developing a device to measure picture literacy. Level of motion picture literacy should be considered in the process of film adaptation. For instance, let us suppose that a foreign audience is below the level of recognizing concrete objects in a "distorted" representation. Scenes having such distorted pictures should be assumed as not intelligible. An explanation, before viewing the film that the picture of the rat does not show the real size of the rat is important to avoid a misconception: the American rat is very big. Another technique, to avoid such a misconception, would be to insert a sequence showing the picture of the rat taken from a familiar point of view and have the camera gradually approach the rat until his picture fills the whole screen. A third solution would be to cut off the sequence of the close up of the rat if it does not harm the film continuity.

How to decide on adding scenes or cutting out scenes brings us to a critical question. This question is: Who is a good film adapter? In other words, what are the qualifications of a good film adapter?
In Chapter V: Principles of Translating Printed Materials, six qualities of a good translator of written materials were discussed:

1. Satisfactory knowledge of the foreign language
2. Ability to write one's own language
3. A high degree of sympathy in translating literary materials.
4. Understanding the subject matter under translation
5. Familiarity with the country of origin
6. Translation should be only into the translator's own language

In educational motion pictures the verbal element plays a significant role in communicating the film's message. Therefore, the six qualifications listed above must be possessed by a good film translator. Besides these qualifications a good film translator should understand the film medium.

What are the advantages and limitations of the motion picture medium? How are ideas expressed in the motion picture? What are the functions and nature of the elements of the basic units of the motion picture language? What are the effects and role of the punctuation of the film? Accurate and precise answers to these questions should be known by a good film translator. References listed in Chapter II, Motion Picture Language, are a good source for developing one's understanding of the unique aspects of the motion picture language.
It is often difficult to find one person who possesses the seven qualifications listed above. In such a case, film adaptation should be done by a committee. This committee should include a motion picture language specialist, a linguist, and a subject matter specialist.
 CHAPTER VIII
CONCLUSION AND RECOMMENDATIONS

The aim of this study was to develop a practical theory for educational film adaptation based on the fact that the motion picture is a unique type of language. This unique language of the motion picture requires different methods of translation from those of the verbal language.

In Chapter II, Motion Picture Language, the hypothesis "The motion picture presents a unique type of language" was tested. It was noted that the motion picture is a discursive language. In Part One of the same chapter, the nature of the basic units of this language was studied. Part Two dealt with the syntax of the motion picture. In Part Three, the style of the motion picture was studied.

In Chapter III, Review of Literature on Film Translation, the available literature on film translation was reviewed. It was noted that such literature is meager. In the existing literature emphasis has been put on translation of the verbal sound track and preserving lip synchronization.

In Chapter IV, Analysis of Eight Educational Films Translated From English Into Arabic, a check list was developed on the basis of the discussion presented in Chapter II, Motion Picture Language. This check list was used to analyze the translation of eight educational films translated from English into Arabic. The check
list was divided into three major parts. Part I dealt with the elements of the basic units of the motion picture. Part II dealt with the syntax of the motion picture, and the third and last, Part III dealt with the style of the motion picture.

The original English version and the Arabic version of each film was viewed. The sound track of each version of every film was tape recorded for further checking. Any change in the elements of the basic units, the syntax, and the style, from the original film, in the Arabic film was noted and recorded. The findings of this analysis are summarized below.

I. Basic Unit

   A. The Verbal Element

   1) The vocabulary level of the translated and the original films were about the same.

   2) The rate of delivery in the Arabic versions was slower than that of the original.

   3) In two films — Alcohol and The Human Body and Care of the Skin — some parts of the original narration were left out in the translated version.

   4) In one film — Alcohol and the Human Body, the last part of the film was reinterpreted in the translated version.

   5) The dialogue used in the original version of Care of the Skin was paraphrased and narrated in the translated version.
6) The one-sided dialogue in the original film of *Helping the Child to Face the Don't's* was adapted into the Arabic version.

7) The one-sided dialogue in the English version of *The Ears and Hearing*, was left untranslated in the Arabic version.

8) Written frames used in the English version of *Helping the Child to Face the Don't's* were replaced by Arabic written frames in the Arabic version.

9) Written frames used in the English Version of *Body Defenses against Disease* were kept unchanged in English in the Arabic version, and a translation of these frames was heard in Arabic.

10) Written frames used in the original film *Endocrine Glands*, remained in the original English in the Arabic version, and no translation of these frames was heard in Arabic.

11) Labels used in the films under study remained in English in the translated versions. If the original narration included a reading of these labels, then a translation of them was heard in the Arabic version.

B. Sound Effects

1) Sound effects used in the original version of *The Ears and Hearing* remained the same in the translated version.
2) Sound effects used in the original version of Endocrine Glands and Home Nursing were eliminated in the translated versions.

C. Music

1) Music used in the original version of The Ears and Hearing and Home Nursing was kept the same in the translated versions.

2) Music used in the English version of Care of the Skin was eliminated in the translated version.

D. Picture

The picture element remained unchanged in the translated versions of all the films under study.

II. Syntax

Optical effects used in the original films remained unchanged in the translated versions.

III. Style

Editing is kept unchanged in the translated versions.

The study was under the limitation of the inability to measure the effectiveness of the translated versions of the films under study -- no Arabic speaking students were available. However, the analysis served a dual function: (1) it served as a background of the discussion on the principles of adapting educational films, and (2) it threw more light on the theory and practice of film adaptation as held by film translators.
Since the verbal sound track in educational films plays a significant role in communicating the film's message, it seemed essential to study the principles of translating the verbal language. This was done in Chapter V, Principles of Translating Printed Materials. This chapter made two contributions to the study: (1) It served as a background in discussing the principles of translating the verbal element in the motion picture. (2) It served as a primary stage in testing the hypothesis: motion picture language requires different treatment in translation from that of the verbal language.

In Chapter VI, The Sound Track in the Process of Film Adaptation, the writer presented the principles of translating the verbal element in the motion picture, a test of the hypothesis stated above, and a discussion on the place of sound effects and music in the process of film adaptation.

Finally, in Chapter VII, The Picture Element in the Process of Film Adaptation, five levels of motion picture literacy were discussed. In this chapter the need for a device to measure the intended audience's level of picture literacy was indicated.

To summarize, the principles of film adaptation as recommended by this study are -
A. Principles of Translating the Verbal Element:

1. Principles of Translating the Spoken Part of the Verbal Element:

   (1) Dialogue and off-screen narration should be adapted in order to:

   a) Preserve lip synchronization in the translated version in scenes where dialogue is used.

   b) Preserve scene synchronization in the translated version -- i.e., the on-screen action and the off-screen narration should match.

   c) Help overcome the problem of lack of equivalence.

   d) Avoid the use of difficult words in the translated version.

   e) Make the vocabulary level of the film appropriate to the intended audience.

   f) Keep the rate of delivery of the translated version in the appropriate range recommended by research.

   g) Add the native flavor to the translated narration.

(2) Reproduction of dialogue in the translated version:

   a) If the dialogue used in the original adds interest, arouses curiosity and presents basic parts of the verbal content of the film, then it should be reproduced in the language of rendition.
b) Paraphrasing and narrating the original dialogue is justifiable if the translated dialogue does not add to the communicative value of the film, or if it seems absurd to the foreign audience.

2. Principles of Translating the Printed Part of the Verbal Element:

(1) Written frames in the language of origin should be replaced by written frames in the language of rendition.

(2) Frames having one or two labels should be subtitled.

(3) Frames having more than two labels should be replaced by new frames with labels in the language of rendition — subtitling more than two labels overcrowds the frame.

B. Principles Governing the Use or Elimination of Sound Effects in the Translated Version:

(1) In films intended for children, sound effects that add interest and realism should be preserved in the translated version.

(2) When sound effects are an important cue in the film's communication process, they should be kept in the translated versions.

(3) If sound effects are redundant they can be eliminated in the translated versions.
C. Principles Governing the Use or Elimination of Music in the Translated Versions:

(1) Background music can be eliminated in the translated version of a film to keep the cost of producing the translated version of the film to a minimum.

(2) If music plays a significant role in communicating the film's message it should be kept in the translated version.

D. Principles Governing the Place of the Picture in the Film Adaptation Process:

(1) Pictures should be adapted to meet the picture literacy level of the intended audience.

(2) Cultural background is a vital factor to be considered in adapting films -- e.g., scenes portraying actions that contradict the foreign audience's system of values should be eliminated or explained.

During the course of discussion in the sixth and the seventh chapters, the methods followed in translating the films under study were criticized. Having summarized the principles of adapting educational films it seems logical to state the writer's evaluation of the methods followed in translating these films.

In all the translated versions of the films under study the picture remained the same as the original. This was not criticized
unfavorably by the writer for three reasons:

1) The films portrayed familiar things in familiar situations for both the English and Arabic speaking students.

2) In these films there has not been any artistic manipulation of reality that might be understandable to American students but unintelligible to Arabic students.

3) The intended American audience and the intended Arabic audience can be considered as possessing the same degree of picture literacy.

The sound tracks of these films were treated in different ways. Some of these methods are not recommended by this study. Below, an evaluation based on the principles developed of the methods followed in translating each film will be presented.

**Alcohol and the Human Body**

Some parts of the original narration were left out in the translated version (see Table 16). Leaving out parts of the original narration is possible if (1) the translation of these parts will seem absurd or unintelligible to the foreign audience, (2) the omission of these parts will not harm the film continuity. Nevertheless, it is desirable to preserve scene synchronization. In this particular film none of the above conditions are met. Therefore, omitting these parts of the original narration is not justifiable.

In the same film, the last scenes were reinterpreted. Re-interpretation is possible if the new lines do not contradict the
picture. In this particular film reinterpreting the last scenes was possible. Unfortunately, the last scenes were out of synchronization — a common mistake among many scenes in this film.

Two labels were used in this film. The first, \( \text{C}_2\text{H}_2\text{O} \text{ H} \), was used in the first and the 67 scenes. The second, \"D, B, A, G, E, B_2, B_6, C\", was used in scene 51. As a rule labels should be subtitled in frames having less than two labels. However, in this particular film, where the audience understands English, there is no need for additional cost by subtitling the labels, provided that the teacher indicates to his students the labels and their meaning before viewing the film.

**Body Defense Against Disease**

In the Arabic version of this film an English written frame was used, and an Arabic translation of this frame was read by the narrator. This violates the principle noted on page 180, that written frames should always be replaced by the corresponding foreign written frames.

Labels were used in scenes 31, 36, 39, and 57 (see Table 7). In scenes 31 and 57 one label, \"Lymph Node\", was used. In these two scenes it is unnecessary to subtitle the labels since the intended Arabic student understands English and the meaning of the labels can be made clear to him before viewing the film.
In each of the scenes 36 and 39 three labels were used "Heart, Liver, Spleen." In this case there is no need for producing a new sequence having Arabic labels, because: (1) the words "heart" and "liver" are within the Arabic students' English vocabulary, and the word "spleen" can be explained to them; and (2) these words are faded-in over the picture of the heart, the liver and the spleen, and this makes it easy for the Arabic students to learn the new words.

Care of the Skin

Music used in scenes 1 to 13, and from scene 78 to the end of the original film was eliminated in the Arabic version. Since this music did not furnish a principal cue for learning, therefore, it can be omitted without any measurable defect.

The only sound effect used in this film was the sound of knocking at the door. The elimination of this sound was unsatisfactory because it lacked realism. In addition, the sound of knocking at the door is an important cue: 'someone is interrupting Virginia, but she will wait until she rinses herself.'

Replacing American names by popular Arabic names in this film is a good idea, because the Arabic speaking children might feel more intimate with actors with familiar names.

Paraphrasing and narrating the dialogue between the children is unsatisfactory, because for 5th grade children to hear a dialogue between the actors in the film is more interesting than hearing a narrator describing the dialogue.
The Ears and Hearing

Music and sound effects used in the original film were preserved in the translated version. As indicated in the sixth chapter, preserving music and sound effects in the translated version is indispensable to a good adaptation of this film. This is because music and sound effects used in this film are essential factors in the film learning process.

In the Arabic version of this film a voice of an English person is heard over the telephone. The reason for using this voice in the original film was to present different kinds of sounds. The majority of the Arabic audience might not understand what the man was saying. Therefore, keeping the voice in English will distract the audience from the major theme of the scene: different kinds of sounds which reach the ear.

Endocrine Glands

In the original film two sound effects were used (see Table 10). In the translated version of this film the sound effects were omitted. On page 184 it was stated that the elimination of these sounds in the Arabic version had no effect on the film's message because they did not act as an essential cue in the film learning process.

In this film a written frame was used in addition to many labels (see Table 10). According to the principles developed in this study, a new sequence having an Arabic written frame should be constructed.
Labels were used in 13 different scenes. All these labels remained the same in the translated version. For an Arabic high school student most of the words in these labels are difficult. Learning these labels before viewing the film is quite a burden for the student. Therefore, it would have been better to replace the original scenes having English labels by others having the equivalent Arabic labels.

**Eyes and Their Care**

Labels were used in one scene of this film (see Table 11). The English labels remained the same in the Arabic version. There was no need for constructing a new sequence having Arabic labels, because, the words **sharp, dim, colorless, vision, and color** are within the vocabulary level of the intended Arabic audience. However, the teacher should point out, before viewing the film, the meaning of these terms to assure better understanding of the film.

**Helping the Child to Face the Don't's**

In the original film, the voice of a mother speaking to her child was heard. In the translated version, the mother's orders to her child were adapted into Arabic to add the native flavor. Such a practice is recommended by this study. As pointed out in the sixth chapter an American educational film adapted into Arabic should sound as if it were produced in Cairo.
In the original version of this film a written frame was used. In the translated version this frame was replaced by an Arabic written frame — a translation of the English text in the original written frame. The writer recommends this practice of replacing a foreign written frame by the equivalent native written frame.

**Home Nursing**

Music used in the original film remained the same in the translated version. Preserving music in the Arabic version of this film is needed for a good adaptation of this film. This is because music in this film serves as an important factor in the process of film communication.

The only sound effect used in this film was a cough. This sound was omitted in the translated version. The elimination of this sound is approved by this study because the sound of coughing apparently does not add anything to the understanding of the film's message.

As in the film *Care of the Skin*, adapting the American names into Arabic is a good practice for the same reasons indicated above.

In the translated version of this film some parts of the original narration were left out. The writer sees no good reason for leaving out any part of the original narration.
In Chapter III, Review of Literature on Film Translation, three methods of translating films were discussed. The suitability of these methods in translating educational films on the basis of the principles developed in this study is commented on below:

**Method 1. Subtitling**

In the subtitling method, described on pages 83-84 a translation of the main dialogue or narration is flashed on the bottom of the screen. If we assume that a foreign audience understands the film by this method we actually have assumed that (1) the picture itself is universally understood, and (2) replacing the spoken part of the verbal element by a brief written translation of the main part of the dialogue or the narration is sufficient for communicating the film's message. On the basis of the principles developed in this study these assumptions are not valid. First, as has been noted on pages 186 - 195 the picture is not universally understood. Further, the level of picture literacy of the foreign audience must be considered in the process of adapting the original film. Second, the spoken part of the verbal element of the motion picture cannot be faithfully replaced by subtitles for these reasons:

1. The tempo of the original narrator is lost when the spoken part is replaced by subtitles.

2. The frame cannot hold a complete translation of the narration corresponding to the on-screen action, accordingly only a part of the narration or the dialogue will be subtitled.
3. The picture element plays the significant role in the process of film communication.

However, in this method we are distracting the spectator's attention from the picture by adding subtitles that he must read to understand the film.

Therefore, subtitling as a method of translating educational films is inadequate.

The second method of translating films, studied in the third chapter, is "mixing a narration with the original sound track."

Method 2. Mixing a narration with the original sound track

In this method the original narration is translated and read by a native narrator in the translated film. This method has two limitations in translating educational films -- (1) There still remains the problem of the written part of the film: Written frames and labels. According to the principles developed in this study written frames should be replaced by the corresponding foreign frames. Labels should be replaced by the corresponding foreign labels especially when the original frame has more than two labels and subtitling them would overcrowd the frame. (2) Narrating the dialogue, i.e., the original dialogue is paraphrased and read by the foreign narrator, is not advisable if the dialogue adds interest, arouses curiosity, and presents a basic part of the verbal element of the film.
Therefore, mixing a narration with the original sound track is recommended when (1) the original film does not use written frames or labels in communicating its message, and (2) the original dialogue when translated does not add interest, arouse curiosity, or it it seems absurd to the foreign audience.

Method 3. Producing a foreign language sound track to match the original lip movements

The original dialogue is adapted to give the intended meaning of the original film and to create the illusion in the foreign audience that the original actor is speaking in their language. According to the principles developed in this study reproducing the dialogue in the translated film is recommended if the translated dialogue adds to the success of the film's message. In other words, producing a foreign language sound track to match the original lip movement is indispensable to a good film translation if the translated dialogue promotes the success of the film communication. If the translated dialogue does not add to the fostering of the film's message it should be narrated in order to keep the cost of producing the foreign version to a minimum.

Therefore, none of the three methods is the best method for good translation of educational films. The method advocated by this study might be called the "eclectic method for educational film translation," the principles of which were discussed in the sixth and seventh chapters of this dissertation, and are listed in this chapter on pages 203-205.
Recommendations for Further Studies

In the course of discussion in this thesis the need for the following studies have been indicated:

1) A study to determine the appropriate rate of delivery in Arabic films.

2) A study to develop a formula to measure the vocabulary level of the Arabic language.

3) A study to develop a device to measure the audience's motion picture literacy.
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