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Decrypting E(STLIN) E(DWARD) Cummings' Poetry: Unveiling the Unsaid

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Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Magister in English

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Dedication

In memory of Estlin Edward Cummings (1894 – 1962)

Abstract

The dissertation is concerned with making the unfamiliar familiar to the readers of literature, specifically to those who are interested in poetry in general and in e. e. cummings' (1894 - 1962) poetry in particular. It aims to investigate the extent to which the conventions of poetry are "violated" via the deviation of the normal usage of syntax, phonology, graphology, morphology, and semantics. Furthermore, it foregrounds the importance of literary stylistics as an objective method of analysis leading more or less to an interpretation of literary text that is far from being based on impressions and feelings. Thus, basics of cryptography are explained and the notions of style and stylistics are dwelt upon so that to give a clear idea/ cut between style as a rhetorical notion and stylistics as a linguistic tool. The notion of concrete poetry is also passed under review. All these methodological steps are taken along with a focus on e. e. Cummings' way of writing/ disfiguring norms of language, where parts of sentences are understood partly in terms of themselves but partly also in terms of their relationship with other expressions in the poem. Many concrete examples that provide supportive proofs to the theoretical parts of the work are presented by implementing/ fusing two disciplines, namely "Cryptology" and "Stylistics" to reach an interpretation of what once was unreadable and uneasy to access to.

ملخص

إن هذه الأطروحة تسعى إلى جعل ما هو غير مألوف مألوف لقراء الشعر الأدبي بصفة عامة، وبصفة خاصة لقراء شعر كامينغز إدوارد إستينغ (1894-1962). وتهدف إلى دراسة مدى انتهاك قواعد الشعر من خلال الانحراف عن الاستخدام العادي من بناء الجملة، علم الأصوات، دراسة الخط، مورفولوجيا، وعلم الدلالات. وعلاوة على ذلك، فإنها تعرض أهمية دراسة الأساليب الأدبية باعتبارها طريقة موضوعية التحليل لتفسير النص الأدبي والتي تعتبر هذه الأخيرة بعيدة كل البعد عن كونها مبنية على الانطباعات والمشاعر. وهكذا تم شرح أساليب التشفير والمفاهيم الأسلوب والأسلوبية لإعطاء فكرة واضحة بين ما هو الأسلوب كفكرة والأسلوبية كأداة لغوية. تؤخذ هذه الخطوات المنهجية جنبا إلى جنب مع التركيز على طريقة كامينغز الكتابية أو طريقة معابيره لتشويه اللغة، حيث يتم فهم أجزاء من الجمل جزئيا في حد ذاتهم ولكن يتم فهم هذه الجمل أيضا من حيث علاقاتها مع تعبيرات أخرى في القصيدة الشعرية. تم عرض عدة أمثلة ملموسة لتقديم البراهين الدائمة للأجزاء النظرية للبحث من خلال دجم إثنين من التخصصات وهي "علم التشفير" و " علم الأسلوب" وذلك المتوصل إلى تفسير ما كان غير قابل للقراءة وغير سهل المفهم.

Résumé

La thèse a pour but de révéler l'inconnu aux lecteurs de la littérature, en premier lieu à ceux qui s'intéressent à la poésie en général et à la poésie de e. e. Cummings (1894 - 1962) en particulier. Elle vise à étudier la mesure dans laquelle les conventions de la poésie sont "violées" à travers la déviation des usages normaux de la syntaxe, la phonologie, la graphologie, la morphologie et la sémantique. En outre, elle souligne l'importance de la stylistique littéraire comme étant une méthode objective d'analyse conduisant plus ou moins à une interprétation du texte littéraire qui est loin de subjectivité. Ainsi, les bases de la cryptographie sont expliquées et les notions du style et la stylistique sont discutées afin de donner une idée / clarifier la différence entre le style comme une notion rhétorique et la stylistique comme un outil linguistique. La notion de la poésie concrète est également révisée. Toutes ces étapes méthodologiques sont prises en mettant l'accent sur la façon d'écriture de e. e. Cummings et la dégression des normes de la langue, où des parties de phrases sont comprises d'un part en termes d'eux-mêmes et d'autre part en termes de leur relation avec d'autres expressions dans le poème.De nombreux exemples concrets qui fournissent des preuves de soutien aux parties théoriques des travaux sont présentés par la mise en œuvre / fusion de deux disciplines, à savoir "Cryptologie» et «Stylistique" pour parvenir à une interprétation de ce qui était autrefois illisible et inaccessible.

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The research at hand presents a study that fuses on two completely different fields, literature and cryptology. As true as it can get, this topic is not a pioneer thing to talk about as both fields are mixed up by great literary writers as they implemented cryptology in their literary writings; naming for example, Edgar Allen Poe's "The Gold-Bug", Arthur Conan Doyle's "Sherlock Holmes", Harris Robert's "Enigma" and others. What is new about this work is far beyond just fusing both fields together, however, before I introduce the overall aims and goals of the thesis, first, I would like to point at some important introductory points. Throughout my under and post-graduate studies of literature and after having read a set of pieces of literary texts, I encountered some neglected literary works (novels and poems) that were not much appreciated among readers. However, what impressed and puzzled me about these works is that the lack of appreciation towards them was not on the fact that they were not good enough, but rather is because of the unfamiliarity of the language used in them, not that they were written in foreign or dead language which, maybe, most readers do not master, but because of the violation of the norms of the language used, in our case, English language. By violation, I mean the breaking of the norms of grammar, phonology, syntax, graphology...etc. Therefore, what is new about this enquiry is that it does not discuss the use of cryptology in literary texts as a technique or as a main theme; yet, it aims to show how cryptology can make a contribution to the study of literature as a stylistic tool. It aims to present a new approach in making those unfamiliar literary works familiar, easy to be read, and understood to the readers, therefore, reaching an interpretation.

Among many literary writers that I have encountered, there is only one poet who grabbed my attention, he is considered to be a school of writing in himself, as well as the strangest, the weirdest, and one of the most unorthodox writers of the modernism era. When he appeared on the stage of literary world as a young and romantic poet, he was considered as one unmistakably of his time. He is the poet and the painter incarnate Edward Estlin Cummings (E. E. Cummings). Mr Cummings (October 14, 1894 - September 3, 1962) is considered as the most modern of traditionalists and the most traditional of modernists. This sarcastic puzzle lies through both his life and his poetry; his life as a writer was to some extent a negation of his background as he never held a 'normal' job, but lived true to his own terms and principles by creating his own

rules. The rules that Cummings created were on the expense of the norms of literature as we know it. This violation cost Cummings a lot as he was hammered by many critics' comments. At least some early critics such John Finch 1939 questioned his use of vocabulary; he considers his intensive repetition of words as a destructive violation of language. Another critic made by Richard P. Blackmur 1931, where he asserts that readers of Cummings' poetry will be struck by sameness among them. Blackmur divided this sameness in two sorts: a vagueness of image and a constant recurrence of words. Indeed, I was impressed – and very puzzled by his poems. The first poem I have met, "r-p-o-p-h-e-s-s-a-g-r" I really could not read it or even know where to start, and that was not only me, most people (English students and teachers) could not even guess that it is a poem. For them, it is Chinese, a gibberish piece of writing. I tried to check readers' feedback concerning this poem, yet, what shocked me is that Cummings' readers provided their own interpretation of some of his poems, but the problem was that no one ever mentioned how to read them. For this particular reason, my thesis will hopefully provide an easy way to decode that encrypted poems of his relying on cryptology as a stylistic tool.

Therefore, I begin my thesis with an account of fundamentals of cryptology. This is necessary in the first chapter because this kind of enquiry is new (at least on the level of our university), a bit complicated and needs a sufficient amount of knowledge to grasp. Thus, I kicked off this chapter by defining the notion of cryptology with the explanation of its most known concepts and terminologies such as encryption, decryption, coding, and decoding. Then, and for a better understanding, a glimpse of historical background is provided, where I point out to its main roots. After that, a detailed explanation of how cryptology works as a system is provided. This is done by clarifying the different sides of cryptology – there are who do it by the book and there are who break its norms. In addition to that, a set of variety of types of cryptology is illustrated in which they provide a great help in decrypting Cummings' selected poems. The field of cryptology is so vast and really complicated; it requires a very heavy knowledge concerning mathematics, physics, exact sciences, and so on. However, as far as my work is concerned, just an introduction to the field will be enough. What really needed to be tackled, here, is only superficial aspects such as terminologies and its basics as mentioned before. One may ask, how can we relate this kind of field to the study of literature? The answer to this question is simple; the relationship the

use of cryptology and literature in this enquiry lies on the use of cryptologic approach naming encrypting and decrypting data. To be precise, the approach adopted in the last chapter is known as cryptanalysis, that is to say, the field that relies on the hacking and the breaking of the norms of cryptology. The use of cryptanalysis is essential because there are no keys to be used in decrypting the selected poems.

The second chapter is concerned with the originality of this thesis, which lies on the use of cryptology in the field of literature in general and as a stylistic tool in specific. This is a first, and this is the core of the whole work, here, I explain how I implement the basics of cryptology in analysing a literary text. Since my area of study is poetry, I took a moment to explain some of its features. This is not done for the sake of introducing what poetry is, but to make the distinction between poetry as we know it (with all of its characteristics, norms, and analyses) and the poetry that Mr Cummings writes which is known as "concrete poetry". The latter, is also known as "visual poetry". This kind of literary work represents the parallels that have traditionally been drawn between the visual art (namely; painting in particular) and poetry. However, the difference that lies between these two kind of poetry is that the former has a set of norms to follow, this means that the poet is bound with rules and any breaking of its rules leads to the failure of his work. The latter kind of poetry, on the other hand has no boundaries, it is a free-verse kind of work, the poet here is bound to his own rules such as Mr Cummings did. The aim of this chapter is to show how is concrete poetry considered as a part of cryptology. Therefore, I started with explaining the relationship between cryptology and poetry. Then, providing a set of data concerning the notion of traditional poetry and how to analyse a poem to reach a significance. After that, a discussion concerning that notion of what is meant by concrete poetry and its characteristics as we as how to analyse its content to reach a meaningful understanding.

The examination of literary works has witness many approaches and methods, and the examination in this research is no exception; in which a stylistic approach is conducted to examine Cummings' selected poems. In this respect, a section, in the current chapter, is devoted to the field of stylistics. The latter, is kind of a study that helps the reader reaches an objective understanding of the literary piece s/he is analysing. Stylistics is meant to provide a scientific approach in analysing a piece of literature where it neglects all the what has to do with the

author's life or any circumstance that the text is written under. It only focuses on the text and the text only. Stylicians believe that any kind of aspect outside the text can affect and influence the judgment of the reader in reaching his or her own interpretation. In this regard, this section starts with defining stylistics' most concepts and definitions. Then, a distinction between two of its main types is presented, naming: linguistic stylistics which is to be the purest form of stylistics as it aim to seek for the study of style and language variation, and literary stylistics which is similar to literary criticism that is concerned with pursuing the individual message of the author in order to make its significance clear to the readers. Of course, the types of stylistics are not limited only on these two types (linguistic and literary stylistics), as a matter of fact, stylistics has many subdisciplines such as Textualist stylistics, Formalist and Functional stylistics, Discourse stylistics, Expressive stylistics, and Pedagogical stylistics. This division of types are mentioned to show how vast the field of stylistic is and how much important and effectiveness is its analysis.

Moving to the next chapter, the part that deals with Cummings' kind of poetry, here, the focus is not on his poems as such, but in the way they are written. This leads me to speak about and investigate Cummings way of writing or rather say Cummings' style. Therefore, it would not be appropriate to speak about Cummings' style without speaking, first, about "style" itself. In this respect, this chapter starts its arguments with introducing the notion of style. When it comes to the definition of styles, it is a quite difficult task to do. Therefore, many stylisticians, linguists, and other scholars gave their views even though there is no unique, simple, or direct definition of the term. After establishing some notes concerning the terminology of style, I moved to investigate Cummings' unique way of writing with lies in his daring in disfiguring the English language and in breaking the rules of the norms of poetry. His audacity is seen in two approaches that are of literary criticism point of view and linguistic point of view. What is known about Cummings is that he is not only a poetry writer, but also a painter, in which most of his poems are derived from his drawings. In this respect, his work is not only considered as a literary piece but as an art as well, therefore, a question concerning on which criteria his work is considered as an art. The answer to this lies on Cornelius Carman Cunningham's ten factors. For Cunningham, a piece of literature is considered as an art only of it possesses the following factors or qualities: universality, individuality, suggestiveness, psychical, or aesthetic, distance, unity, harmony,

variety, contrast, balance and proportion, and rhythm. The next section in this chapter deals Cummings way of writing. A way that is well-thought-out as a unique and unorthodox one, which is characterized by the escaping from the ordinariness through the poet's manipulation of linguistic deviation. Cummings' style is an example of the formalism by excellence. Here, it is very necessary to point out to foregrounding, which is a vivid technique used by Cummings in his poems. The closing part of this chapter speaks about Cummings' linguistic deviations naming: Graphological, Lexical and Semantic deviation.

The last chapter is concerned with the practical issues, the part where I practise what have been discussed in the three previous chapters. Thus, I start this part by presenting Cummings' selected poems: '<u>r-p-o-p-h-e-s-s-a-g-r</u>', '<u>ygUDuh</u>' and '<u>the sky was</u>'. The selection of these poems is not at random; I specifically chose them prior to their difficultness, form, and language used. Next, I move to identify cryptologic characteristics in them and then try to decrypt them using cryptanalysis approach. After decoding the enciphered data in the poems, I move to approach a stylistic analysis of the poems. The stylistic analysis focuses its study on the linguistic deviations of each poem and tries to reach a meaningful significance.

CHAPTER ONE: THE FOUNDATION OF CRYPTOLOGY

Privacy, confidentiality, and secrecy are three elements instinctually embedded in our daily lives. With one way or another we try to conceal our personal information such as financial, diaries, and communications. Most of us did, at some time or another, write diaries or still do. Therefore, we used to keep them confidential, and away from other people, however, hiding it from the members of the family, for instance, was not really enough, thus we try another more secure way as if we lock it with a key, if it is a diary-book, or we lock it with a password if it is a file on a computer. As a matter of fact, written diaries are meant to be read and sometimes we have this kind of feeling to share some events from our past with others (family members, friends, teachers, lovers, or even strangers). In order for the readers to get access to the diaries, they must have the key or the password to open it and read the content. By sharing this common key or password between the diary writer and the reader we are practicing a kind of science; that is called *Cryptology*. In this respect, I am going to tackle this kind of inquiry in this chapter starting with the basics of the field: defining its notion, take a peek on the historical background, then provide terminologies of its most known keywords, after that, explain how does its mechanism work, and point to some most known Cryptologic ciphers.

I. THE BASICS OF CRYPTOLOGY

1. The Notion of Cryptology

Etymologically, the word cryptology goes back in time to the Greek's roots. The word originates from 'κρυπτός /kryptós' standing for 'hidden/secret' and 'logos' standing for 'word'. Accordingly, the meaning of this inquiry, that is cryptology, is best interpreted as 'hidden word'. By hidden word, it does not mean to hide words semantically or literally, but rather concealing the meaning of messages. As far as it goes to the definition of this science, there is more than one definition to provide, however, it is best, first of all, to start with the definition given in the Oxford English Dictionary which is:

A secret manner of writing, either by arbitrary characters, by using letters or characters in other than their ordinary sense, or by other methods intelligible only to those possessing the key; also anything written in this way. Generally, the art of writing or solving ciphers.

Once we read this explanation, we cannot agree more, it is clear, general, and to the point. Yet, for better understanding I am going to point at some other definitions such as the International Journal of Computer Science Issues, Vol. 9, Issue 2, No 3, which asserted that:

Cryptology is the practice and study of techniques for secure communication in the presence of third parties (called adversaries). More generally, it is about constructing and analyzing protocols that overcome the influence of adversaries and which are related to various aspects in information security such data as confidentiality, data integrity, and authentication. (March 2012: 583)

In Andre Langie (1922: 01) Cryptography is believed to be

The art of recording one's thoughts in such a way as to make them unreadable to others. Particularly, more-over, it enables two persons to correspond under cover of complete secrecy at least in theory.

Whereas Mark Stamp & Richard M. Low (2007: 02) define cryptology as 'The science of making and breaking secret code.'

For the people who are not acquainted with the field of cryptology, they may use the word cryptology and cryptography as one entity, whereas, both are different from each other. As a matter of fact, the field of cryptology compasses cryptography as a subfield and another called cryptanalysis. See figure. 1.1

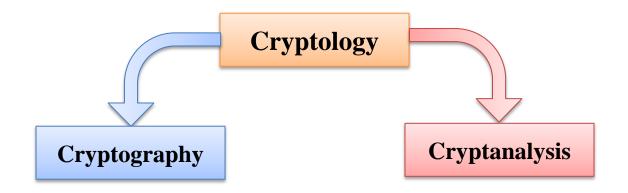


Figure 1.1: Cryptology, cryptography, and cryptanalysis

A. Cryptography

Smilingly to the term cryptology, cryptography, also, is a word that is derived from the Greek language 'kryptós' (see above) and 'γράφειν/graphein' means 'writing'. "Hidden graphein/writing" is the practice of making and transforming a text from a readable state to unreadable one. By this process, it enables two parties to communicate in total secure way, but only if they share or agree on a common key to reverse the operation and make the unreadable readable. Pretty Good Privacy Corporation defines cryptography as:

The science of using mathematics to encrypt and decrypt data. Cryptography enables you to store sensitive information or transmit it across insecure net-works (like the Internet) so that it cannot be read by anyone except the intended recipient.

(An Introduction to Cryptography. 2003. p.09)

So far, it is acceptable to consider and use the term cryptology and cryptography equally. They both seek for secrecy, confidentiality, and secure communication, in other word, cryptography is inserted within cryptology. Yet, there is another field which is, also, a subfield of cryptology; that is to say *Cryptanalysis*. The latter is considered to be the foe of cryptography. By foe I mean, its process is completely different from that's of cryptography. We said that, if we want to apply cryptology correctly, two parties must share the same key, so that both can get access to the message they agreed on. Cryptanalysis, on the other hand, is concerned with hacking that message and deciphering it without any pre-shared key. Cryptanalysis enables a

third party (usually called adversary) to intercept and take a peek on the content of cryptography and even modify it.

B. Cryptanalysis

Cryptanalysis is the science of cracking codes, decoding secrets, violating authentication schemes, and in general, breaking cryptographic protocols. The main purpose of cryptanalysis is to allow a third party to spy on any communication and hack into its content without being noticed. However, that's not all; it enables the spy to crack into the message without any preshared key. To do so, the spy must find some weaknesses within the cryptographic system so that he can take on the content.

As far as my thesis is concerned, cryptanalysis itself is the key to make Edward Estlin Cummings', (1894- 1962) poetry readable, that's if his poetry possesses a cryptographic touch. Cryptanalysis, hopefully, will enable me to create a kind of tools that will help me do the job right. But, before going deeper into this, I'm going, first, to provide the work with little historical tips so that what comes in the next sections will be more understandable and easy to grasp.

All the different definitions concerning cryptology, cryptography, and cryptanalysis share something in common. They all speak about concealing messages' meaning in writings and how to make a readable text unreadable one. To some extent, this idea is true, it is reasonable to believe that cryptology is as old as writing itself, but if we take a minute and consider this following question: was cryptology concerned only with the written form of communication? Though the answer to this question is far beyond from what my thesis aims, it serves a great deal in offering a better understanding.

Definitely, I believe that cryptology was used even before writing was created. Plenty of examples can be delivered in this case. One of the best specimens is that's of the military. A military fortress, in the previous ages, did not have a sophisticated security system like nowadays. Yet, they used to protect its perimeter with passwords, if anyone wants to enter, the guards would stop and ask him for the password. The latter, gives a vivid example of a cryptographic mechanism, this proves that cryptology is older than writing. Till the present time, verbal cryptology is still used on a colloquial level, i.e. in the general public. Pickpockets in markets communicate with each other by using cryptologic utterances. In my home town's

markets, thieves used to communicate with phrases such as "zigih aissa" or "show lifi sratek" where the former means 'pickpocket this person' and the latter stands for 'the person which is on your right'.

For my licence graduation degree, June 2009, I worked on a memoir entitled "A Pragmatic Study of Fishermen's Language in Mostaganem's Docks" where the whole work was about an encrypted speech community and how the members used and still practice encrypted language, where this language is obscured to any outsiders.

The difference between the verbal cryptology and the written one lies in the complexity of the mechanism. The verbal cryptology can stand just temporarily, it is easy to be compromised if the holder of the password gets caught and tortured or he may sell it for a great amount of money. Written cryptology, on the other hand, is more secure and complicated. To hack into a written encrypted text, one needs to acquire a heavy knowledge of the inquiry.

Before I get into the chronological history of cryptology by pointing at some milestones of the field, it would be appropriate if I start with the terminologies of the most known concepts.

III. TERMINOLOGIES

If there is anything in the field of cryptology that one should know about, it would be the terms **encryption** and **decryption**. These two mechanisms are the core of cryptology. They allow users to encrypt and decrypt any text. However, it won't be appropriate if we don't speak about the content of messages. Data that can effortlessly be read, understood, and has an easy access is called **plaintext** or **cleartext** and the data that is coded and cannot be read at the first sight is called **ciphertext**. Both encryption and decryption deal with plaintext and ciphertext.

1. Encryption

Encryption is the process of converting a readable text (that is plaintext) into unreadable one which it ciphertext. See figure 1.2.



Figure 1.2: The process of encryption

2. Decryption

Decryption is the reverse of the encryption process, that is to say, going backward from ciphertext to the original one (plaintext). The key to the ciphertext must be available. Thanks to the key that is shared between the person who encrypted the text and the one who is decrypting it this procedure can be successful. See figure 1.3.



Figure 1.3: The process of decryption

3. Coding and decoding

The word "code" comes from the Latin language "codex" or "caudex", meaning "the stock or stem of a tree, a board or tablet of wood smeared over with wax, on which the ancients originally wrote". Code/coding is one of the oldest methods of cryptology. As stated above, Codes are one of the earliest forms of cryptography, having existed, according to David Kahn, as early as the

first century B.C. in Assyria and Babylonia. They became widely popular in the fourteenth century with the rise of city states in Europe. After the invention of the telegraph in 1840, codes became popular for the transmission of commercial messages. An utterance such as "hurry up! I will be waiting for you at the station" could be shortened by the use of code words for "hurry up" and "waiting at the station" The actual message transmitted by telegraph might be 26 for "hurry up" and 12 for "waiting at the station" The purpose of such codes was not primarily secrecy but cost savings. A message that reads 26-12 is obviously less expensive to send than one that reads. Therefore, code is a process of signals and a secured way of transmitting messages between two parties. Encrypting/decrypting and coding/decoding differ in the nature of the concepts. However, they share the fact that both of them share the same purpose and that's converting a plaintext into ciphertext and verse versa.

The practice of coding/decoding can be divided into two categories; we have seen the example of "hurry up! I will be waiting for you at the station" which is replaced with numbers (26 12). This is on the general public level. However, there is another category which is more complicated than just replacing a word or a sentence with other unites. In cryptology, coding is a quite complicated thing to do. For better understanding, let me illustrate how coding and decoding work. First of all, let's take the name of my supervisor of this thesis as an example which is Dr. Neddar. Now if I want to code the name, I could write it into two types of coding; letter codding and numeric coding, and it goes as the following:

- ❖ Letter coding: Dr. Neddar → IMVJIIFM
- ❖ Number coding: Dr. Neddar → 41814544118

Letter coding is when we replace the alphabets of plaintext with other alphabets prior to a precise rule to know its code, whereas numeric coding is concerned with the replacement of the alphabets with numbers. To decode the message, first of all, the key must be available, in our case see the table below. Then once we have the key we should approach the decoding by following these tips:

- ✓ Focus on the alphabets or numbers given in the code deeply.
- ✓ Find the sequence it follows whether it is mounting or descending.
- ✓ Understand the mechanism in which the alphabets/numbers/words follow.

✓ Replace each letter or number in the code with the original letter.

English Alphabets	ABCDEFGHIJKLMNOPQRSTUVWXYZ
Letter Coding	FGHIJW X Y Z R S T U V B C E M D N O P Q K L A
Number Coding	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Table 1.1: Coding and decoding key

Before taking any look at the table above, most people are aware of the order of the English alphabets but what they are not aware of is their values. I did a kind of experiment with my students, whenever I ask a student to tell me about the English alphabets, I found him/her learning them by heart, however, if I ask about the value of any letter, which is the classification number of each letter, for instance, the value of the letter 'R' which is the 18th or 'H' which is the 8th or 'Q' which is the 17th the student stands speechless. Same thing goes with coding; the key to our coded message is to know the value of each letter; that's if our coding is numeric but if it is letter coding we need to look to the replacement of all the letters as illustrated in table 1.1. Therefore, to decode our message, it should be approached as illustrated in figure below. The example I gave look very simple and easy to decode, however, coding and decoding is more complex than that, there are some codes that may take a life time to decode even with the provided key. In this respect, I would like to keep the level of encryption novice just for the sake of an easy understanding, but things will get more complicated when dealing with E. E. Cummings selected poems in the next few chapters.

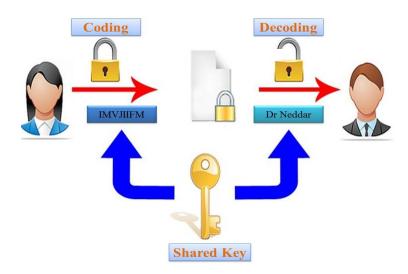


Figure 1.3: Coding and decoding

IV. HISTORICAL BACKGROUND OF CRYPTOLOGY

If we stand on the stage of history and dig into the antiquity of cryptology, we are going to see that cryptology goes all the way back to ancient times. By ancient times, I mean the cradle of the great civilizations such as the Egyptians, Greeks, and Romans. Cryptography has an interesting past and has experienced many changes through the centuries. Since people started taking the civilization idea seriously, they got interested in concealing certain information that they wanted to keep to their own possessions by using a kind of cryptic ways, such as replacing parts of the data with numbers, images, and symbols. There were times, and still, where cryptology plays a great deal in providing security to its users. It gave the Assyrians a protection of their trade secret of manufacturing of the pottery, the Chinese in their trade secret of manufacturing silk, and many other security services.

Few millenniums BC, people learned how to express language through letters and other symbols, as most people could not read; writing itself is considered as one of the earliest form of cryptography. Cryptology, back then, was exclusively concerned with converting a plaintext into unreadable groups of figures to protect the message's content. In this respect, I would like to shed light on the Egyptians way of writing, then move to other ways of cryptology from different civilizations. Four thousand years before, one of the first writings appeared in Egypt, where scripts were carved into living rocks in caves, mountains and tombs (see figure below). Archeologically speaking, the Egyptians used a kind of cryptology even though not all people had access to read their symbols. At the main chamber of the tomb of Khnumhotep II the writer used hieroglyphic symbols completely different from the ordinary ones, however, the purpose of this cryptology was not meant for the sake of ensuring secrecy, but only for increasing mystery among religious rites and to make them look more honorable, sacramental, and magnificent.



Figure 1.4: Egyptian Hieroglyphs

Through the course of time, conflicts between nations lead to the necessity of cryptology. Communication in military affairs stimulated people to invent new way of encrypting their transmissions, whenever messengers get caught by the enemy the message must not be found. So, the better way to keep the message save is by cleverly hiding it. By hiding it, I mean not only encrypting the meaning of the message, but also hiding the message itself. In ancient Greece, cryptologists sent messages on wooden tablets which they were covered with wax, so that it looks like an unused tablet. Prior to Herodotus, ancient Greek historian, people used to communicate by shaving slaves' heads bold and tattoo the message, which was covered by hair regrowth and expose it by resolving; this kind of cryptology is known as steganography.

The Spartans, the warlike of the Greeks, established the first military system of cryptology. They created a kind of a device called "Scytale/Skytale". This device, so to speak, consists of a staff wood and a strip of papyrus wrapped around it. The plaintext is written on the parchment from left to right and then unwound. The ciphertext is the disconnected letters on the strip that make no sense unless it is rewrapped around a staff of the same thickness as the first one. See figure below.



Figure 1.5: The Spartan's Skytel

A few centuries down the round, another way of concealing messages was invented. The pioneer of this method is called Julius Caesar, therefore, the method is called Caesar's Cipher. When he mailed messages to his generals, he did not trust his messengers (the less they know, the safer the message is), he replaced each alphabet with another as in A for D, B for E, and so on through the rest of the alphabets. Only his generals who had the key to decipher the message could read it. More details about this method are provided in the next few pages.

As time was getting old, reaching the mechanical and electromechanical technology, cryptology was used for tactical communication. During World War II, cryptologists created a machine called *Enigma*, that uses substitution ciphering, its basis is similar to that of Caesar's cipher but in a very complex way.

V. THE MECHANISM OF CRYPTOLOGY

1. How Does Cryptology work?

To clear the dust concerning how cryptology functions, one should be acquainted with the terminologies of the players. By the players, I mean the hypothetical characters that are used to explain or describe any kind of system. In other words, we have this habit when giving an example about a conversation; we, unconsciously and always use 'A' and 'B' as our virtual characters without any second thoughts as in:

A: Hello! **B** how are you today?

B: Hi! A I'm good, how are you?

At the first sight 'A' and 'B' would look as if they were chosen at random like any other alphabet letters. However, if we take a minute and consider this duo and to what do they refer, we are going to conclude that these two refer to **Alice** and **Bob** which are originally used as a standardized sender/receiver in the field of cryptography. There are other proposed characters that play supporting roles in cryptology: Eve, Charley, Jane, Dick, Carol, Donna...etc.

In most literary stories, as in novels, whether fiction or non-fiction there are two kinds of characters; we have characters of the good side and characters of the bad side (protagonist versus antagonist) and cryptology is no exception. The imaginary characters that cryptology possesses have their own conflicts. They can be divided into the good and the bad guys.

A. The Good and Bad guys

One may ask; why such concepts of "good guys/bad guys"? And do they really exist in the field of cryptology? The answer to these two questions leads us to another question, that is to say: what do we mean by the good and the bad in the first place? It is commonly known that when

there is a story (fiction story mostly) there are, on the one hand, characters that fight for the good side and they are called: Heroes, protagonists, and so on. And, on the other hand, other characters who fight for the evil side and they are called: antagonists, bad guys, criminals...etc.

However, this is not the case in the field of cryptology. By good and bad in cryptography we mean the people who respect the maxims of cryptology i.e. **code makers (the good guys)** and others who violate the maxims known as **code breakers** or **crackers (the bad guys)**. The maxims of cryptology are simple and they are as followed:

- ➤ Both sender and receiver trust each other.
- ➤ Both sender and receiver must share the key to the ciphertext.
- The exchange of the encrypted text and the key should be done in a complete secrecy.
- ➤ No third party is allowed to interfere or intercept the communication.
- > If the key is exposed the whole operation is compromised.
- > Update or change the key when necessary.

1) Alice and Bob (The good side)

As a matter of fact, these rules are very crucial to follow. In this case, the good guys are who obey them. They are applying cryptology as it should be without breaking any maxim, that is to say, converting what is readable, plaintext, in to the unreadable, ciphertext, and of course they must agree upon a shared key so that they reverse the operation when communicating. So far, what Alice and Bob are doing seem typical and familiar, it goes as the following:

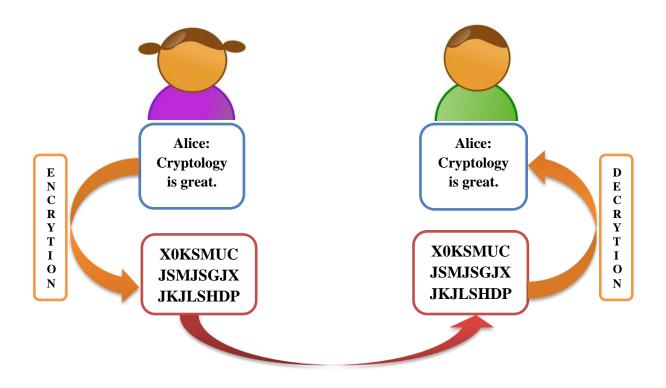


Figure 1.6: Alice and Bob secure communication

Figure 1.6 illustrates how a typical cryptology system functions, and so far, it is as clear as crystal. However, what a good story is without the bad guys? What Alice and Bob are doing seems so typical, as much as it seems boring, same old story repeats itself each time they communicate. The missing link that makes cryptology more interesting is the devilish side and here comes the role of the attackers who will add fun to the party.

2) Eve (The evil side)

The common, well-known, character within this side that cryptanalysts use to illustrate the arch-villain is known as "Eve". The latter is not another random name given to a character, it's like Alice and Bob, Eve's name is derived from the word "Eavesdropper". By eavesdropper, it means listening to a conversation without being noticed, it is much more like spying. In cryptology, Eve is considered as the third-party which is not allowed to be a part of Alice and Bob's communication. Here, Eve is going to intercept the communication and tries to decode the plaintext and sometimes even plays the role of Alice or bob when possible i.e. perform the role of the sender or the receiver. However, Eve's decoding of Alice's encrypted message is totally

different from that's of Bob's, in sense that Eve neither possesses nor obeys any presupposed set of rules. Since Bob uses the pre-shared key to decrypt Alice's ciphertext, Eve practices cryptanalysis to do the same. Cryptanalysis allows Eve to hack the message without the key, and this what makes cryptanalysis more interesting than cryptography. Figure 07 shows how Eve intercepts Alice and Bob's communication. Prior to the figure, it seems that though communication between Alice and Bob is encrypted, Eve could intercept it and with some luck and a sufficient amount of time she could also decipher the message or even edit it. Since this is the case, where is confidentiality here? How could cryptology provide secrecy and security while other unwanted eavesdroppers hack and crack the message? The answer to these questions lies in the strength of the key Alice and Bob agreed to use in encrypting and decrypting their messages.

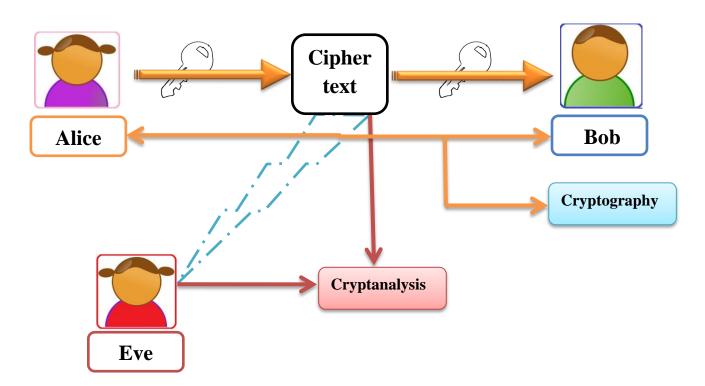


Figure 1.7: Eve intercepting Alice and Bob's communication

To make a safe encrypted communication one must strengthen the key in doing so. In this case, both Alice and Bob's cryptology process must possess:

- > The secrecy of the key when sharing it,
- ➤ The size of the encryption/decryption key, and
- ➤ How do they all work together.

What enables Eve to decipher Alice's ciphertext is by looking for weaknesses within the message. For example, there are some people who use their dates of birth as passwords and when they get hacked they wonder why. What a cryptanalyst does when cracking a message is trying to guess the familiar codes that a cryptologist may use such as: dates of birth, phone numbers, pets' names, zip codes, and so on. Consequently, the first rule in encrypting a message is to use a complicated hard guessed encryption that will take a life time period to decode without the appropriate key.

Cryptology possesses two kinds of keys. The first kind is a key that both sender and receiver use to encrypt and decrypt a message. The second, on the other hand, is a key that is mutually related to another key i.e. one key is used for encryption and another is used for decryption. These types of keys, that cryptology holds, are known as **Symmetric key** and **Asymmetric key**.

B. Symmetric Key versus Asymmetric Key

As if cryptography is not complicated enough, the concept that are used to define the keys only make it difficult to grasp. However, for better understanding, we are going to use alternative titles instead of symmetric and asymmetric key. In a cryptosystem, symmetric key is known as **private key**, whereas asymmetric is called **public key**.

1) Private Key (Symmetric)

As mentioned before, a private key is a key that both sender (Alice) and receiver (Bob) use to encrypt and decrypt a message. To illustrate how private key works within a cryptosystem, let's consider the following figure:

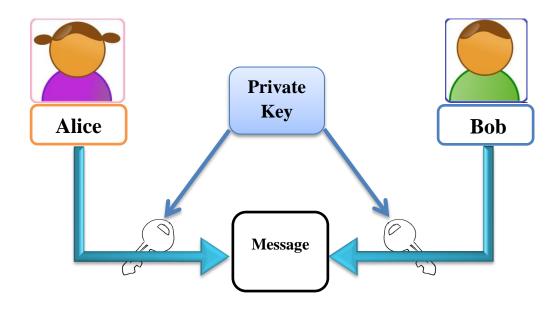


Figure 1.8: Private encryption/decryption using the same keys

This kind of key that is used in a cryptosystem (figure 1.8) is also known as **secret key**. It is secret in sense that Alice and Bob must keep it secret and safe from any intruder's hand such as of Eve's. Because if, by any chance, Eve puts her hands on this key, she will be able to decrypt any intercepted message between Alice and Bob that is encrypted with that key.

So far, at a basic level, private key seems easy, safe, and fast process to do; this is because we have just Alice and Bob as our communicators, so let's add more players to the party and see how things go for the symmetric key.

Figure 1.8 shows that Alice is communicating with Bob using a symmetric key, but what if Alice does not have only Bob as her communicator? This means; what if Alice has to communicate with Dave, Norman and Charley? In this case, Alice must have four separated symmetric keys, one for each correspondent. Up to now, this may not sound like a great deal, but what if Alice has to communicate with dozens of people or maybe hundreds, it would be difficult for her to keep a track and to use the correct key to correspond with every mate as each correspondent needs his/her own private key in decrypting a message. In this case, Alice will get older before she can scratch her head; it is so difficult to maintain and it's time consumer.

Another Achilles' heel that puts the private key down on its knees is that the whole process is dependent on how the correspondents secure and protect their keys. What guarantees does Alice have to make sure that all her communicators are securing their private keys? Because if any key gets compromised, chickens would come home to roost. First of all, a key could be compromised when Alice wants to communicate with Bob for the first time; she has to figure out a secured way to get the key to Bob, because mailing it or sending it to him with another person is not quite safe at all. Second of all, the key could be compromised when updating the key for any reason. What adds fuel to fire is that though Eve intercepts Alice and Bob's communication, she cannot just decrypt the message but she can also play the role of one of them whether on the behalf of Alice or Bob, and here, Eve is more dangerous than ever. In this respect, it is important to shed light on the fact that symmetric key though it delivers confidentiality, yet it doesn't offer authenticity. So, to recapitulate the pros and the cons of the symmetric key, we are going to say that the private key has strengths as well as weaknesses:

Strengths

- Much faster and easier to use than asymmetric key.
- ➤ Hard for eavesdroppers to decode if using a large complex key.

Weaknesses

- The delivery of the key requires a secure mechanism.
- The number of keys grows exponentially depending on the amount of correspondents.
- The receiver cannot say if the sender is the right person, no authentication provided.

2) Public Key (Asymmetric)

Similarly to symmetric key, public key is a key that is used between two persons (Alice and Bob) however, in contrast to private key, asymmetric key is consisting or made up of a pair of keys; one public and the other private. These two keys are related to each other, but no one comes from the other. Figure 1.9 exemplifies an asymmetric cryptosystem.

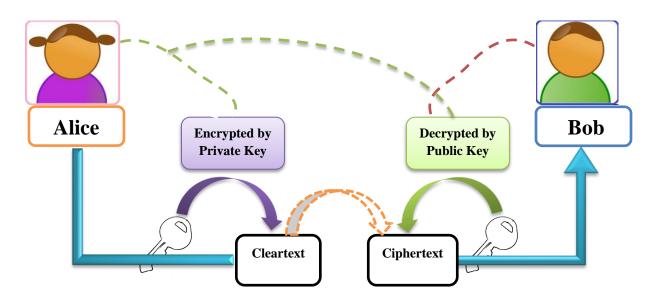


Figure 1.9: Asymmetric encryption/decryption using different keys

In addition to what figure 1.9 illustrates, we can, also, understand that the key that Alice uses to encrypt the message is totally different from that's of bob's when decrypting the message. So, if Alice uses a private key to encrypt a message, the receiver Bob must have Alice's public key to decrypt it. The process is like a catch 22 situation, which means that if Bob wants to reply to Alice; all he needs to do is to encrypt the message with Alice's public key, the same key that he used to decrypt the first message, and then Alice can decrypt Bob's reply with her private key. This kind of cryptosystem is much more secure than the former one; it prevents Eve from decrypting the message so easily because it is impossible to decrypt a message using the same key while it is encrypted with an asymmetric cryptosystem.

Unlike symmetric key which provides confidentiality but no authentication, asymmetric key provides both; since Alice can encrypt her message using a private key and Bob can decrypt it using her public key, here, Bob can make sure that the message really came from Alice, because the key that is used to encrypt the message works compatibly with the one that is used to decrypt it. In this case, Eve must have both keys to decrypt the message or take part of the communication otherwise she will not have a leg to stand on. Now, this operation can take another version; Bob can also use his private key to encrypt his reply to Alice instead of using hers, as in the first operation, but why would he do that? He wants her to know and to make sure

that the response really came from Bob, because if he encrypts his message with Alice's Public key, this would not provide authentication. In this case, she has to use Bob's public key to decrypt his response, thus both sides can be certain that they are communicating with each other and no one else, which means that their cryptosystem is solid and safe.

2. Avoiding confusion

For the people who are not familiar with the field of cryptography, these symmetric and asymmetric cryptosystems are so much smoke and mirrors. The following tips will make things much clear:

- * Both keys, private and public, are used to encrypt and decrypt a message.
- * If a message is coded with a private key it cannot be decrypted with another private key, it must be a corresponding public key.
- * If data is ciphered with public key; it needs a compatible private key to decipher it.
- * Asymmetric key is slower than symmetric key, but it provides confidentiality and authentication.
- Public key is much easier in distribution than the private one, because its encryption and decryption require two keys (private and public).

VI. TYPES OF CRYPTOLOGY

In one way or another, people started using cryptology for over four millenniums, that's equal to 4,000 year ago. Throughout the stage of history, one can realize that cryptology took so many shapes, approaches, and models. This did not happen neither for the sake of change nor for the sake of fashion, this switching from one method to another happened because, in contrary to cryptology, there is, what's known as, cryptanalysis. The people who practice this kind of enquiry are called **attackers** and they have probably been in process for 3.999 years and 364 days. Their aim was and still hacking and deciphering any encrypted message got in hand. As a matter of fact, the job of the cryptanalysts stimulated and obliged cryptologists to come up with new methods and upgrade their techniques in encrypting and decrypting communications and more than that making them hard to intercept as well as impossible to decode.

In the first part of this chapter, section three to be exact, we have dealt with a brief historical background of cryptology where we have seen one of the most known types of enciphering, that is to say, Caesar's Cipher, also known as substitution cipher. In addition to the latter, other models are going to be tackled and they are not the only methods that cryptography witnessed, however, they are chosen for the sake of what is suitable for this research, therefore, they are as followed: transposition model, running key cipher, concealment cipher, Palindrome, and Anagrams. These cryptographic approaches are going to be defined and explained how they function.

1. Caesar's Cipher (Substitution Cipher)

One of the most known systems of keeping a text confidential is called a **cipher** (also cypher). This system relies on replacing each letter by a different letter. This was created by the pioneer Julius Caesar. In critical letters to his generals, he substitutes each letter with the letter three places beyond it, the method was quite simple: each letter has a value of another letter which is located three steps away. The table 1.2 below shows an illustration of the full encipherment.

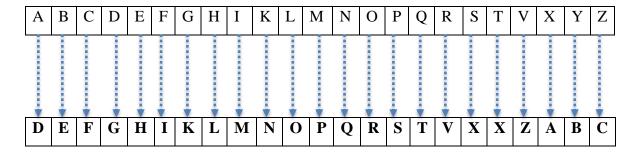


Figure 1.10: Caesar Substitution Cipher

According to the figure above, the letter a takes the value of the letter d, b becomes e, c becomes f, and so on. The following example is a passage taken from Caesar's letter to Cicero (a Roman philosopher) where he enciphered it using a substitution cipher. But, before getting into the content of the message, there are some notes concerning the Roman alphabets that one should be familiar with. Unlike the English alphabets, the Roman alphabets are 23 letters; the missing letters comparing to the English ones are: j, u, or w. Phonetically speaking, some Roman letters had the value of others according to their position in a word as in: the letter i has the value of [i]

and value of [y], v has the value [u] and [w] latter [v]. The letter k does not exist in the list of the Roman alphabets, however, it is included for the sake of translating Greek words.

The passage that is going to be used to illustrate how did Caesar, personally, encipher his message is presented in original language, that is Latin, which is translated into English as the following in which he said, 'Let this be the new way of conquering that we fortify our position by mercy and generosity.' Here, to separate the plaintext from ciphertext, the convention of using lower case for cleartext and capitals for encrypted text is as followed.

➤ Plaintext:

haec nova sit ratio vincendi vt misericordia et liberalitate nos myniamys

➤ Ciphertext:

LDHF QRZD XMX ZMQHQGM ZX PMXHVMFRVGMD HX OMEHVDOMXDXH QRX PZOMDPZX

Caesar cipher needs a key to know how the substitution must be executed. In this case, the key to our example is illustrated in figure 1.10, if we compare the plaintext with the key we are going to get the same result as in the ciphered text: 'h' equals 'L', 'a' equals 'D', 'e' equals 'H', and so on. This method has its heydays in the reign of the Roman Empire; most people could not read and whenever they find a message written in this way 'LDHF QRZD XMX ZMQHQGM ZX PMXHVMFRVGMD HX OMEHVDOMXDXH QRX PZQMDPZX' they would think that it is written in another language. However, as time was getting old, this method got full of days as people started to know about writing and reading, therefore, Caesar cipher lost its effect as its encryption got vulnerable.

Inspired from Caesar's cipher, a more secure method was invented by the French diplomat Blaise de Vigenére (1523–1596) where a **polyalphabetic** cipher is used. Twenty-six different letters are used repeatedly to form a 'Vigenére square' as illustrated below:

GH I JKLMN O P QRS D F G Η K L M Ν 0 Ρ R S Т Ι J Q U V D \mathbf{E} F G Η J K L Μ Ν 0 Ρ Q R S Т U VΧ Υ Τ M Ρ 0 R S U K Μ Ν 0 Ρ Q R S Τ U V W Χ Υ Α В G Η K L Μ Ν 0 Ρ Q R S Τ IJ VW Χ Υ Ζ Α В R S Τ U V Υ Η Ι K L Μ Ν 0 Ρ Q W Χ Ζ Α В C D Н Ρ Q R S Т U VW Χ Υ Ζ Α В C Ι Μ Ν 0 D K Q R S Τ U VΧ Υ Ζ Α В D Ε Η J Μ Ν 0 Ρ W C J K Ρ R S Т Ζ Α В C Ε F L Μ Ν 0 U V W Χ Υ D L Μ S Т U V W Χ Y Ζ Α В C D Ε F C Ε G M N Ρ R S Τ U V Χ Y Ζ Α В D F Η M Ν Ρ Q R S Τ U VW Χ Υ Ζ Α В C D Ε F G Η Ι Ε F Ι N 0 Ρ 0 R S Τ U V W Χ Υ Ζ Α В C D G Η J Κ Ρ Τ U VΧ Ζ Α В С F W Υ D Ε G Η Ι J Κ R S Τ U VΧ Υ Ζ Α В С D Ε F G Η Ι K L J R Χ Y Ζ Α В C D Ε F G Η Ι J K L Μ Z S Υ Α В D Ε F Η Ι G J K L Z A В C D Ε F G Η Ι J K L Ν 0 Ρ R V Μ ΑВ D F G Η K U Υ C Ε Ι J L Μ Ν 0 Ρ J Υ Α В С D Ε F G Η Ι K L Ρ Τ V Μ Ν 0 В Ε F Ι K С D G Η J L Μ Ν 0 Ρ Q R Α Ε F Ι Υ В С G Η J K Ν 0 Ρ 0 R D L Μ В С D Ε F G Η Ι J K L Μ 0 Ρ S Ν Q R F Ι ΚL N Ρ R Ε G Η J Μ 0 Q S Т A B C D E F G H I J K L M N O P Q R S T U V W X Y

Figure 1.11: The Vigenére square

The process in encrypting a message using a polyalphabetic cipher works as follows. Let's assume that we want to encipher the plaintext CRYPTOLOGY using the key CIPHER. In this case, we are going to look for the first letter of the cleartext in the first, vertical, column and find the first letter of the key in the first horizontal line, however, since the keyword is shorter than the plaintext, as in our case, it is repeated as many times as it takes to match the number of letters of the cleartext. The matching point between the two will give us the first letter of the ciphertext, let's consider:

Key	С	I	P	Н	Е	R	С	Ι	P	Н
Plain	С	R	Y	P	Т	О	L	О	G	Y
Cipher	E	Z	N	W	X	F	N	W	V	F

Table 1.2: Enciphering and deciphering using Vigenére cipher

A. Transposition Cipher

The other method of enciphering is called transposition cipher, where permutation is used. Unlike substitution method, which is, the replacement of one letter with another, transposition method works by transposing the letters of the plaintext, that is to say, scrambling them to form an enciphered text. The key governs the transposition of the characters to which way they should be performed. The figure below exemplifies the method. However, this is just a simplistic example of permutation to facilitate the understanding. When presented in more complicated manner, the encryption is more sophisticated.

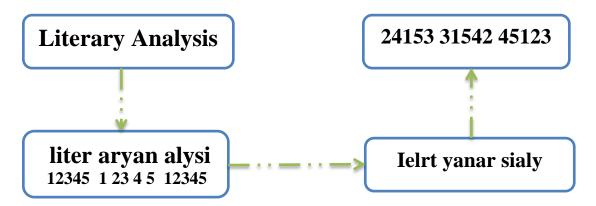


Figure 1.12: Enciphering and deciphering using transposition method

The transposition cipher works by dividing the plaintext in five letters raw, as shown in figure 1.12: *liter aryan alysi*. To complete the sequence, four null letters should be added at the end. In this case the intended recipient should receive the encrypted message as follows: '*Ielrt yanar sialy*' however, he must possess the key which determines how the transposition is carried out.

For a much more secured communication cryptologists combined both Caesar cipher and transposition cipher. This way, it will take more than a lucky guess for the attackers to decipher the plaintext. The combined method (substitution and permutation) works by, first, enciphering a plaintext with Caesar cipher, then the result of the encryption (ciphertext) is considered as the cleartext when enciphering it with a permutation technique. To decipher such an encryption the recipient must possess two different keys.

B. Running Key Cipher

There are other ways in encrypting and decrypting a massage without the need of a mathematical key. This may sound contradicting with the rules of cryptology but there are some exceptions. During the Cold War (1947 -1991) the conflict between the Soviet Union and the Western Democracies was on the espionage front. Spies used many ways in their communications. One among many methods that they used is called *running key cipher*, which requires clever phases in the physical world that is based on a pre-shared knowledge between the sender and the receiver. For example: spy Alice sends a message to spy Bob and it goes this way:

Alice: '74123.69456'

If Alice's message got in the hands of Eve, Eve may think that Alice is using a substitution or a transposition cipher and each number represents a value of an alphabetic letter. However and as a matter of fact, Eve's thinking is far beyond reality. Bob, the intendant recipient of the message, knows that these numbers do not represent alphabets but they represent something else in the physical world. Thanks to his schemata (pre-shared knowledge with Alice) he can tell that the plaintext is in the prearranged series of books that he and Alice use. Therefore, the steps of decrypting of the message go this way:

- > Seventh book in the predetermined series of books,
- > Page 41,
- > Second line,
- > Third word.

Bob follows this sequence by going to the intendant book, page, and line to reach the exact word. In this case, the cleartext is the word *mission*. Same process goes with the second part of Alice's message. It goes; the sixth book, page 94, the fifth line, and the sixth word, here, the meant word is *failed*. When Bob finishes decrypting the numbers he finds the cleartext "*mission failed*".

C. Concealment Key Cipher

Another spy method is called concealment cipher, which is a process of enciphering a message within another message or an image. This method can be divided into two approaches;

the first system (concealing a message within a message) uses a key to decrypt the cipher text by reading only the concerned words in the message, for example:

Alice sends a message to Bob: 'You know, legends are people like Haggard and Jones and Wills and Sinatra.'

When Bob receives the message, he knows that the key value is every third word within the message. Hence, he picks the following words: *You know, legends are people like Haggard and Jones and Wills and Sinatra*.' After spotting the key words, he gets the following decryption that reads: "legends like Jones" this may mean for Bob that his superiors are pleased with his accomplishments.

On the other hand, the second approach of concealment cipher is concerned with concealing the message within an image or any kind of figures, this kind of enciphering, so to speak, is called **steganography**. The following example is taken from the cartoon series "Detective Conan" where in an episode a man was killed in his room and there was no clue left for the detective to solve the crime but the following numbers typed on the screen of the victim's phone and they are as followed: "36987412*14756369*123258"

In this case, the numbers are obscured for Conan to decrypt them because he does not possess the appropriate key, but in fact, there is no key required in this case. With some investigation at the crime scene, there were no books to rely on, as illustrated in running key cipher, however, thanks to steganography the detective, eventually, releases that those numbers are not enciphered but they are hiding the name of the killer. All he needs is a numeric keyboard. Now, the sun rises on the dark city and the detective started to see things clearly; the following figure shows what the numbers mean.

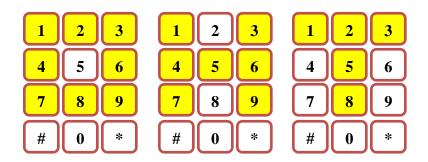


Figure 1.13: Encryption and decryption using steganography

Figure 1.13 evidently shows that the numbers on the screen of the phone are shaping a form of alphabet letters; the first part of the encrypted message is '36987412' we can see, in the figure, that the highlighted number form the letter 'O', the second part, 14756369, forms the letter 'H', and the last one, 123258, forms the letter 'T'. The victim, before dying, typed the first initial letters of the name of his killer, hopefully a smart detective could serve justice, and eventually that's what really happened at the end of the story when the killer under the name of **O**nimusha **H**ideyoshi **T**oyotomi was taken into custody.

CHAPTER TWO: LITERARY CRYPTOLOGY AND STYLISTIC

I. POETRY AS A PART OF CRYPTOLOGY

The word contagious probably is the very best adjective that could possibly describe the field of cryptology. It's like a virus, spreading among all kinds of fields: science, media, politics, economy, even religion and the field of literature is no exception. Literature itself did not leave any ground without influencing it and giving it a taste of its own aesthetics features. These two vast subjects (cryptology and literature) when combined together create a field called 'literary cryptology'. By literary cryptology, I mean implementing cryptographic aspects and rules in literary works. In this respect, throughout this section, I am going to shed light on how each field is linked with another. This will be done by focusing on one particular literary genre that vividly represents cryptology in the field of literature, that is to say poetry. However, the kind of poetry to deal with differs from the traditional one to which most of us is used to. My interest will be on what is dubbed 'concrete or visual poetry'. To serve the task at hand, it would be appropriate, first, if we start by defining what poetry is, what kind of language does it possess, what types of poetry that uses cryptology, and how to decrypt and interpret concrete poems using a stylistic analysis.

As asserted before, the field of cryptology influenced many fields, but one might ask: What caused such an interest in cryptology when it comes to literature? As far as literature is concerned, writers such as Edgar Allen Poe, Shakespeare, and William Gibson are among the first literary writers who showed interests in cryptology through their writings. Poetry, so it seems to me, is the best example to illustrate the existence of cryptology in literature. Hence, instances will be mainly drawn from e. e. cummings' poetry. However, before dealing with Cummings' poems, first, we should highlight some types of poetry. Yet, what one should bear in mind is that the 'enigma' of cryptology differs from one particular field to another, let alone that of literature. The system of cryptology, as pointed out in part one of this work, is based on a sender and a receiver, and a common key that is shared between them. Yet, this is far from being the case in literature in general and poetry in particular. That's what, indeed, we hopefully seek to unveil in this work.

When it comes to poetry, most people (especially those who are inexperienced readers) may think that writing a poem is the easiest job ever, for them, a poem is nothing more than just a few lines on a paper; most of the times it is not extended from margin to margin. Thus, how long does it take to write one? Five, ten, fifteen minutes at the most? If that would be true, then indeed, writing poetry is the easiest job in the world. However the truth is far beyond than that, and that's what make people not appreciating poetry. Writing a poem is not about just having the package (words), for someone to call himself a poet is to possess the full package and more than that is to know how to write the right words at the right place. This is a fact as poetry requires from a reader a critical mind and a rich vocabulary with some linguistic skills so that he can read, understand and interpret the poem. In our case, things will be more complicated because the kind of poetry we are dealing with necessitates more than a rich vocabulary to read it; it requires sharp eyes, an opened and critical mind, and a wild imagination. This kind of poetry is known as 'concrete poetry'. The latter is also known as (shaped poetry, Calligramme, visual poetry, and altar poetry). However, it will not be appropriate if we deal with concrete poetry and other types of poetry that violate the norms of the ordinary poetry without mentioning the tradition poetry: its definition, its main characteristics, its analysis, and how it differs from concrete poetry.

II. TRADITIONAL POETRY

3. Definition of Poetry

The word poetry derives from the Medieval Latin 'poetria' meaning 'to create' or 'to make' and it goes all the way back to ancient times. By ancient, I mean before the existence of writing. Since the oral tradition precedes the written form, historians believe that poetry, back then, is used as a means of recording cultural events as well as a story telling. They even believe that the first poem has disappeared, as the world's primogenital remaining novel is the *Epic of Gilgamesh*, which was found written on a clay tablet around two millenniums ago in antique Mesopotamia. What one should know is that poetry is more than a rhyming of words; its magnificence lies on its language, as Laurence Perrine stated: 'May be defined as a kind of language that says more and says it more intensely than does ordinary language' (1970: 517). In other words, poetry is the use of as few words as possible to create more complicated sentences

in a beautiful manner. That's because the poet is trying to communicate with the reader in a powerful way, and what a powerful way is it than using elements of poetry to transmit a message. This will lead the reader to ask the following questions when reading a poem: what's the poem is talking about? And how does the poet say it? The attempt to reach an answer for these questions, the reader must not only guess the significance of the poem but rather analyze it, and this cannot be done at random where there is an organized way of analysis.

2. Poetry Analysis

What's amazing about poetry is that poets hardly ever use a straightforward, clear way in saying what they mean; they always leave it for the reader to read and interpret the poem. By this, the reader is obliged to analyze the poem so that he reaches its significance. By analysis, we mean the examination of something in a much detailed manner, therefore, when it comes to poetry; the word analysis means 'to decode' meaning to pick the poem apart looking for elements of poetry, figurative language, and musical devices that the poet used and to see how they all work together. However, before all this, the reader must be acquainted with the type of poetry he is dealing with, as poetry itself is divided into many kinds such as: a free verse or a sonnet. Then the reader must do the follow particular steps starting with:

- Reading the poem slowly and more than once.
- Looking for the meaning of any unsure words using a dictionary.
- Paying attention to any word in the poem without underestimating any.
- Looking how sounds of the poem effects the meaning by reading the poem loud.

Once the reader is done with the previous steps, he moves now into analyzing the elements of poetry. These elements, first, consist of **detonation** and **connotation**. As a matter of fact, the language that poets use in their writings can be divided in two kinds; on the level of meaning there are words which have denotative or verbatim meaning; the one we can find in dictionaries: direct and easy to understand, for example if we take the word 'chair': 'it means an object made of wood, metal, or plastic and has a separate seat for one person, typically with a back and four legs' (Oxford Dictionary of English). The other kind of words are concerned with the connotative meaning, not the one that we find on dictionaries but the one we can find in its context, the one that has a pragmatic reference. The word chair in its connotative meaning could mean power or

control. The latter type of meaning, also known as the figurative one, has much existence in poetry than the former one in which the poet is less specific and less directive in his writing. Second, elements of poetry deal with **imagery** which is a type of figurative language which deals with the mental image that the reader creates when reading a poem, it is also known as 'word pictures'. Images come alive and concrete in the poem because they make the reader use his five senses: touching, hearing, tasting, looking, and smelling and visualizes them mentally so that he lives what the poem is about. If we take, for example, the word 'woods' from the first and the last stanza of Robert Frost's poem Stopping by Woods on a Snowy Evening:

Whose **woods** these are I think I know. His house is in the village, though; He will not see me stopping here To watch his **woods** fill up with snow.

. . .

The **woods** are lovely, dark, and deep,
But I have promises to keep,
And miles to go before I sleep,
And miles to go before I sleep.

The reader has to think how it feels to be staring at the woods, and ask how tall the woods are, what kind of smell do they have? How dark are they? How much deep do they go? In other words, the reader must put himself in the poet's shoes so that he can live and experience what the poet has experienced. After visualizing the scene with its most details and asking all those questions, the reader, now, goes back to the poem, read it again, and try to accord his mental visualization and ideas with the thing the word 'woods' is referred to and finally try to reach an overall meaning of the poem. The analysis of a poem does not stop at making a difference between a detonative and connotative or visualizing the key words of the poem, it requires more than that in sense that the reader has many other figurative language to spot and analysis such as:

> Simile: a comparison between two thing using 'like' and 'as'.

- ➤ **Metaphor**: also a comparison but it differs from simile in which it does not require using the words 'like' and 'as'. It is a comparison that is not made in a clear direct way.
- Personification: implementing a human characteristic on lifeless objects, animals, or ideas.
- ➤ Onomatopoeia: the use of words that express sound like the word means, or mimic sounds.
- ➤ **Hyperbole:** using an exaggerative statement that emphasizes a point and can be either funny or mockable.

When it comes to the poetic devices, few pages are not enough to present them all, however, in our case few of them are pointed at and that's for the sake of showing how a traditional analysis of a poem consists of and how does it differs from a stylistic analysis which will deal with in the next chapter. Yet, first of all, we have to deal with the kind of poetry we will apply a stylistic analysis on, and that's concrete poetry.

III. CONCRETE POETRY

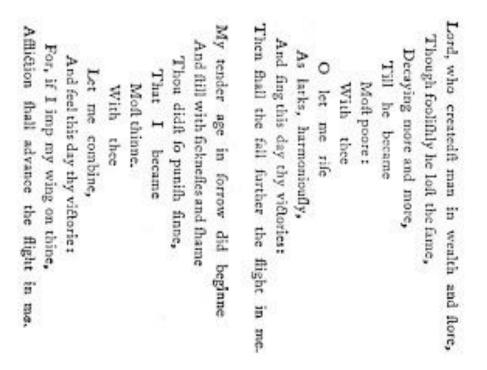
1. The notion of concrete poetry

If we take each artist out of his domain, we are going to find that he is a masterpiece maker at what he does; Beethoven in music, Shakespeare in play writing, Leonardo da Vinci in painting and so many more. When it comes to poetry, it's really amazing what poets can do with words, there are great poets out there such as Robert Frost, Pablo Neruda, Emily Dickinson, Edgar Allan Poe, etc. however, for some poets doing amazing things with words was not really enough, they took poetry to a whole new level by mixing and mating it with visual art. This gave a birth to a new kind of poetry called Concrete Poetry. As it name implies; Draper defines concrete poetry in New Literary History, vol. 2, 1971, pp. 329-40 as:

The creation of verbal artifacts which exploit the possibilities, not only of sound, sense, and rhythm—the traditional fields of poetry—but also of space, whether it be the flat, two-dimensional space of letters on the printed

page, or the three-dimensional space of words in relief and sculptured ideograms.

Concrete poetry is a mixture of words and symbols; words become live in a shape of symbols, that's why when dealing with concrete poetry one may come across words such as visual poetry and calligramme. However, each type has evolved to have a distinct meaning of its own. Concrete poetry may seem new as it is true that it was till 1950's its concept make appearance by a group of Brazilian writers called the *Noigandres* led by Carlos Drummond de Andrade and Augusto de Campos who made an interest in this kind of poetry, however, concrete poetry once was known as '*Pattern Poetry*' and its use goes all the way back to Greek Alexandria of the third century B.C, at that time poems were written on objects such as vases, swords, axe hand, even on eggs. One of the oldest shaped poems was the poem written by George Herbert (1593-1633) during the Elizabethan movement using a shape of wings and altar in titled 'Eastern Wings':



And 'The Altar':

A broken A L T A R, Lord, thy servant rears, Made of a heart, and cemented with tears, Whose parts are as thy hand did frame; No workmans tool hath touch'd the same.

A HE A R T alone
Is such a stone,
As nothing but
Thy pow'r doth cut.
Wherefore each part
Of my hard heart
Meets in this frame,
To praise thy name.

That if I chance to hold my peace, These stones to praise thee may not cease. O let thy blessed S A C R I F I C E be mine And sanctifie this A L T A R to be thine

Most people are not familiar with this kind of poetry; at this point (as illustrated in previous poems) it may seem ordinary poems written in a shape of wings and an altar, however, concrete poetry is more difficult than that and it could get really confusing. Grasshopper poem by e. e. cummings poem 13 from the 1935 volume *No Thanks* (CP 396-397) could be very challenging and hard even in reading it as scrambled words are used as well as a very none sense use of punctuations.

r-p-o-p-h-e-s-s-a-g-r

who

a)s w(e loo)k

upnowgath

PPEGORHRASS

eringint(o-

aThe):1

eA

!p:

S

(r

rIvInG

.gRrEaPsPhOs)

to

rea(be)rran(com)gi(e)ngly

,grasshopper;

At the first sight, it may seem for anyone who is not familiar with concrete poetry that this text is far beyond what poetry looks like. It, also, one might think that whoever wrote <u>r-p-o-p-h-e-s-s-a-g-r</u> loaded some words and punctuations in a shotgun, cracked it, and then fired it on a paper, however, Cummings' poem is far beyond that, his poem deals with natural creatures. Yet, this is not our case at this time to speak about Cummings' poem as more details will be dealt with in the next chapter where a stylistic analysis will be tackled.

2. Concrete Poetry Analysis

Though ordinary and concrete poems belong to the same literary genre, and that's poetry, their analyses differ as the former has elements that the latter does not possess and vice versa. However, before dealing with concrete poetry analysis or rather how to, first, some characteristics of this kind should be dealt with. When dealing with concrete poetry, there two elements one must be familiar with and that are **form** and **function**.

- Form: is the outside look, shape, or design. It is visible to the naked eye and it gives to the poem its uniqueness according to its theme.
- **Function**: shows how the poem is told, it focuses on its language and the arrangement of words.

Concrete poems are all about form and function, there are other features that these poems possess. The feature can be considered as maxims because if any is violated the poem loses its meaning.

- ♣ The poem loses its strength once it loses its form.
- ♣ The form of the poem possesses a significant meaning, thus if the reader removes the form he destroys the poem.

- ♣ The order and arrangement of letters, words, and punctuations creates the theme of the poem and a visual meaning.
- Blank spaces in the poem can also have a significant meaning.
- **↓** Its language is a mixture of lexical and graphic elements.

Smilingly to ordinary poetry, concrete poetry has elements. When dealing with concrete poetry analysis one should deal with the following:

- ✓ **Symbolism**: deals with the picture form of the poem and the signs in the poem that carry a meaning.
- ✓ Colors: colors attract the attention of the reader, the poem can possess multiple colors and that's to show different moods, feelings, and emotions. Each color has a particular signification: blue could mean (peace, power, truth, dignity, coolness, and tranquility), yellow: could mean (happiness, joy, caution, and sickness), green could mean (life, growth, faith, energy, and health), red could mean (warmth, blood, heat, danger, passion, and romance) grey could mean (lack of power, lack of trust, and bleakness) black: could mean (death, evil power, inner strength and determination), white could mean (purity and cleanliness), and white and black could mean (nostalgia and seriousness).
- ✓ **Font:** deals with the way words are written, one should take into consideration the size of letters, the layout, and color.
- ✓ **Hyperbole:** provide an exaggeration in some parts of the poem, for example, intentionally the poet gives to a man very big arms to show that he is a s strong person.
- ✓ **Proportion:** this can be used to show how objects within poem are related to each other. In a poem there are objects larger, more dominant, and more important than others.
- ✓ Foreground and background: some visual poem cannot be read unless the big picture is seen, by this I mean that one should take into consideration both foreground and background image.

Again, concrete poetry possesses a typographical arrangement of language that contributes in creating an image that is as important as the conventional elements of ordinary poetry in conveying a significant meaning. However, in concrete poetry there are no conventional elements such rhythm, rhyme, and meaning of words.

As asserted before, when we say the word concrete poetry, words such as calligramme, visual poetry, haptic poetry, and altar poetry cross our minds, in sense that, it is so difficult to see the borderline between these types. However, the common thing between them all is that they blend are of painting with stripped language. By stripped language, I mean a language that uses codes, numbers, ciphers, ideograms, logograms, colors, symbols, hieroglyph, and so on. Another common thing between these types of poetry is the language where grammar is challenged, pattern of sentence are violated, syllables, punctuations, and capitalizations. All these, make the poem difficult to read. Yet, there is way on how to read this kind of poems. When confronted with a concrete poem, the only way to read it, on must take into consideration the following questions:

❖ What are you looking at?

Concrete poems are meant to seen as well as read; therefore, the reader must start with the visual analysis, in sense that the visual form possesses the theme of the poem, as well as shapes, lines and texture. Tools that poet used in the poem are also questioned, the size of letters and words, and the font.

\Delta How objects are put together?

Once done with the outside form of the poem, now it is time to get little bit deeper, where language is tackled, starting with words and phrases that have a particular impact on the poem, looking for any repeated words or sentences, from where to start reading the poem and how to get to the next line, what can you add to make the poem readable in case it is complicated.

❖ What's the poem is all about?

At this stage, looking for the detonative and connotative meaning could come handy in understanding the main theme of the poem. Then, looking for what the poem evoke from, smells, tastes, sounds, and texture. After that, looking what kind of poetry is it written: a story telling, an idea sharing, or an emotional giving.

Use your own interpretation.

When all the previous steps are done with, now it is time for the reader to express the poem at his own understanding. In literature, any interpretation is correct as long as its arguments are provided. In this respect, the reader must provide evidence from the text to support his understanding.

IV. STYLISTICS: AN APPROACH TO DEAL WITH POETRY

In many ways and for many purposes, amazing are the things that people can do with words; wars can be unleashed, peace treaties can be made, nations can be raised or fallen, businesses can be done, relationships can be bound, and so many other activities. Indeed, activities may vary from one activity to another, yet, the language that is used to serve their purposes aims to achieve one common goal – to negotiate meanings. The birth of the study of language use can take us all the way back to ancient Greece, where scholars believed that language use is mainly an effort in making speeches. Therefore, they distinguished the function of language into three main fields:

- > Rhetoric: the art of creating speeches.
- ➤ Poetics: the process of artistic creation.
- Dialectics: the study of creating and guiding a dialogue.

Gabriela Missikova, 2003

The three fields mentioned above took a tremendous evolution from which the field of poetics took its own path to a field of a study known as Literary Criticism, whereas the field of Rhetoric and Dialectics developed to stylistics. As our area of business is concerned, the focus, throughout this chapter, will be on stylistics mainly; dealing with its main concepts and definitions, types, devices and analysis. In addition to that, style is also a crucial element that must be dealt with

when dealing with stylistics, therefore, a section from this chapter is devoted for the notion of style and its main characteristics.

1. Concepts and Definitions

As simple as it possibly could be, stylistics is a yoking of style and linguistics, although its definition may differ from one scholar to another, its main aim is the study of literary language. The word stylistics derived from the Greek 'techne rhetorike' meaning the art of creating speech. This kind of art was very popular at that time; as it aimed to teach speakers how to create effective and attractive speeches. As mentioned before, the concept of stylistics is a melting pot of style and linguistics which means it's a study where we implement linguistic and artistic expressive means and devices in the course of communication studies. However, concerning the definition of stylistics, it differs from one scholar to another based from which perspective it has been approached.

♣ Simpson (2004: 02) defines Stylistics as:

A method of textual interpretation in which primacy of place is assigned to language. The reason why language is so important to stylisticians is because the various forms, patterns and levels that constitute linguistic structure are an important index of the function of the text.

- ▶ Verdonk (2002: 04) states that Stylistics is 'the study of style, can be defined as the analysis of distinctive expression in language and the description of its purpose and effect.'
- Wynne, (2005:01) argues that 'Stylistics, which may be defined as the study of the language of literature, makes use of various tools of linguistic analysis.'

Kirsten Malmkjær, (1991: 501) said that

Stylistics is the study of style in spoken and written text. By style is meant a consistent occurrence in the text of certain items and structures, or types of items and structures, among those offered by the language as a whole.

- ♣ D. Crystal, (1969: 02,03) asserted that 'Linguistics is the academic discipline that studies language scientifically, and stylistics, as a part of this discipline, studies certain aspects of language variation.'
- ♣ Halliday (2002: 04) asserted that

Linguistics is not and will never be the whole of literary analysis, and only the literary analyst—not the linguist—can determine the place of linguistics in literary studies. But if a text is to be described at all, then it should be described properly, by the theories and methods developed in linguistics, whose task is precisely to show how language works.

♣ Widdowson, (1975) claims that stylistics can be seen as a fusion between literary criticism and linguistics, where its morphological making is constructed upon two component 'style' and 'istics'. He argues that stylistics is an analytic tool of relating disciplines and subjects.

Indeed, one may gather as many definitions as he could get from different scholars concerning the concept of stylistics where most of them vary from one definition to another as their differences lie upon which approach they have been tackled, yet, despite the fact that they differ; the aim of stylistics remains the same- to study style. At this point, we can say that different types of definitions lead to different types of stylistics. However, before delving into the murky waters

of stylistics' types, it may be useful to point at Enkvist's, (1973: 27) nature of stylistics where he asserted:

We may... regard stylistics as a subdepartment of linguistics and give it a special subsection dealing with the peculiarities of literary texts. We may choose to make stylistics a subdepartment of literary study which may draw on linguistic methods. Or we may regard stylistics as an autonomous discipline which draws freely, and eclectically, on methods from linguistics and from literary study.

What Enkvist is trying to point here is that stylistics is a hybrid discipline crisscrossing both literary criticism and linguistics. However, when it comes to linguistics, it's not always an absolute matter that linguistics in a part of stylistics. To make this clear, Leech and Short (1981: 11) agreed that stylistics, in a broad term, is 'the (linguistic) study of style' meaning that stylistics could be linguistics or non-linguistics. But, in our area of business, the non-linguistics notion of stylistics is out of our jurisdiction, even though it has been asserted by Widdowson 1975 that stylistics' morphological making is a combination of 'style' and 'istics' where the former is taken from linguistics. By that, I mean the non-linguistic notion would relates to general literary critics and other amateur who want to analyze an artistic entity without implementing linguistic tools.

When it comes to the types of stylistics, it would be a long list to mention all the types, which are not of much use to us here, however, what one should understand is that there is not such a thing as types of stylistics, yet the term 'type' is only used for facilitating the understanding. Therefore, they should be called approaches.

2. Types of stylistics

When dealing with stylistics in a general term we can see that it can be divided into two main types (approaches): linguistics stylistics and literary stylistics. For those who are not acquainted with the field of stylistics may use these terms confusingly. As a matter of fact, each type has its own approach; therefore, the former is different from the latter where their difference lies in the way they handle literary interpretations_ meaning analysis.

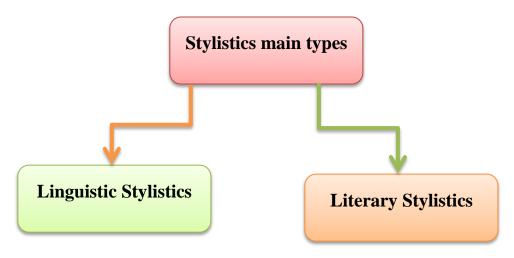


Figure 2.1: The main types of stylistics.

A. Linguistic Stylistics

This kind of approach is considered to be the purest form of stylistics as it aims to seek for the study of style and language variation. The forgoing implies that the focal point of this kind of study is on the use of language and its effects in a literary text. If we take a poem for example, a linguistic analyst would be interested in analyzing the form and the function of the language in the poem. In addition to that, paying attention to the meaning that the poem conveys in which the meaning is a very important asset.

Linguistic stylistics, in recent studies, pointed its aiming on discourse analysis where a piece of discourse expresses the language system. What is it meant by language system, are those linguistics features that can be tackled based on the level of language; naming: (i) lexical repetition (ii) lexico-semantics (iii) syntactic level (iv) phonological level (v) graphological level. An upcoming section is devoted for an explanation concerning these features where practical examples are provided.

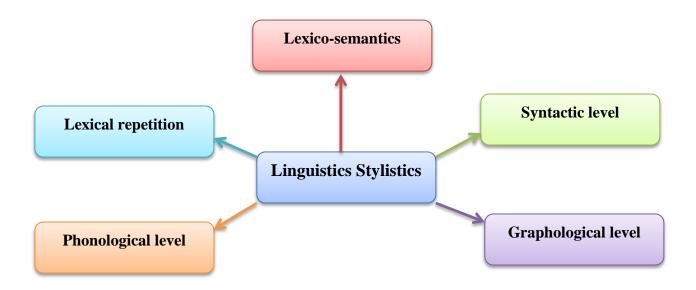


Figure 2.2: Linguistic stylistics features.

B. Literary Stylistics

This kind of stylistics is respectively similar to literary criticism that is primarily concerned with pursuing the individual message of the author in order to make its significance clear to the general public. In other words, the main objective of literary stylistics is to familiarize, or rather encipher, the message coded in the text to unveil its so-called 'true meaning'. The approach conducted in this type differs completely from the previous type (linguistics stylistics). Literary stylistics is more interested in the figurative and evocative uses of language rather than the signals that the writer constructed. It is also interested in the beauty of language and how it is used to mirror reality, in sense that literary stylistics focuses on the interpretation of a poem, for example, and exposing its aesthetic experience of reality that the poem conveys. Unlike linguistics stylistics its attention to how language system is used is only a means to an end.

C. Other Sub-types of Stylistics

The fact about the types of stylistics is quite interesting to be familiar with; true it is that they are not restricted only with linguistics stylistics and literary stylistics. As asserted before, the appropriate term should be approaches rather than types. At this point, a sum of approaches is presented here only for the sake of providing extra understanding and certainly to avoid

confusion concerning the approaches of stylistics. We've already dealt with the two main types, the rest are subtypes, correct it is that they are not much of use in our case but what harm could be done.

1) Textualist Stylistics

In this kind of approach, the stylist merely identifies the linguistic patterns of a literary text; meaning the phonological, grammatical, lexical and semantic patterns, without linking them to the message in the text. This study was used at the early stages of stylistic emergence as a discipline where literary text were viewed by linguists simply as a linguistic event, as well as they considered literary interpretation as a thematic concern or artistic significance.

2) Formalist and Functional Stylistics

As their names imply, each approach has its own method in interpreting a literary text. For the formalist stylistics, the focal point is that they concentrate on the linguistic form of the text where paying attention to the function of the form is less regarded. On the other hand, functional stylistics emphasizes lie on the contextual function that the linguistic entities are used to serve.

3) Discourse Stylistics

Discourse stylistic is an approach where a discourse analysis is adopted. This gives the stylist a great advantage where it enables him to study a longer stretches of a literary text that is beyond the reach of traditional linguistics. In this kind of an approach terms such as 'cohesion and coherence,' 'location,' 'perlocution,' 'speech acts,' 'maxims,' etc. are pointed at and discussed in literary explication.

4) Expressive Stylistics

This approach is an out dated one; it deals with the study of linguistics elements that identify the style that exposes the personality of the author. Expressive stylistics is based on a belief that the writer uses language to express his/her inner self and each writer has his/her own style as a signature that mark him/her from other writers. This approach's heydays are over in the fact that its Achilles heel is that writers change their way of writing over time as well as they change their style.

5) Pedagogical Stylistics

This kind of stylistics is concerned with the implementation of stylistic analysis into teaching/learning purposes. Meaning; it helps enhancing the appreciation of literary texts where the analyzer of the text uses linguistic patterns to moulder complex sentence into comprehensible ones, altering prosaic forms and hyperbatons into regular forms to facilitate the understanding and interpreting of the text. For Carter and McCrae 1996, stylistics in a pedagogical area of business 'has been accused of tending towards the simplistic' this is based on the fact that the purpose of teaching is to make things clear and simple, therefore, stylistics is considered as a positive approach to adopt.

Prior to the forgoing, we can see that stylistics is a multidisciplinary discipline as it is vividly seen in his work '*The Stylistics Reader: From Roman Jakobson to the Present*' (1996) where Jean Jacque Weber presented various approaches of stylistics naming:

- Functionalist stylistics signified by M.A.K Halliday.
- Formalist stylistics represented by Roman Jakobson.
- Affective stylistics introduced by Stanly E. Fish and Michael Toolan.
- Pedagogical stylistics elaborated by H. G. Widdowson, Ronald Carter and Paul Simpson.

Indeed, there are other approaches presented in contemporary stylistics namely pragmatic stylistics, critical stylistics, and cognitive stylistics (ibid).

V. THE NEED OF STYLISTICS

Any kind of study has a purpose, an aim, a goal to achieve; linguistics explains how language is used and how does it work to achieve a successful negotiation of meaning, phonetics explains how sounds and speeches are made and what they are made of, and stylistics is no exception. Paul Simpson asserts in his book 'Stylistics: A resource book for students' (2004:03) that:

To do stylistics is to explore language, and, more specifically, to explore creativity in language use. Doing stylistics thereby enriches our ways of thinking about language and, as observed, exploring language offers a substantial purchase on our understanding of (literary) texts.

Indeed, the latter gives a scientific flavor to literary studies, in addition to the following activities:

1. Shaping the Sense of Appropriateness

Based on the fact that language is not a homogeneous phenomenon and as well as no language should be regarded as 'a readily identifiable object in reality which we can isolate and examine' (Crystal, Davy 1969:3). It has been believed that people use language appropriately to each situation they encounter. However, during their daily activities these people change their type of language accordingly with the change of situations and the people they meet. This will help them gain their surroundings' understanding as well as the latter understand them.

Most people are acquainted with the terms 'normal' and 'abnormal'. They even use them frequently as in: "it's normal to do this or that" or "it's not normal to do this or that" but as a matter of fact few of them understand how these concepts work. Yet, before dealing with what is normal and what is not, first of all, one should be familiar with the notion of 'norms'. By norms, I mean the conventional rules and standards that a group of people agreed on; meaning the appropriate behavior in any daily activity. To define the concept of 'norms' is quite similar to the concept of style, word, sentence, or even literature in sense that linguists could not provide a definite definition. Yet a group of scholars brought to the table a 'subjective' definition to the inquiry naming: Bloch (1953) identifies it with what he calls, 'determinable facts about the use of language', while Crystal and Davy (1969) and Esua (1974) regard the impartial 'casual conversation/speech' as a norm. Cohen (1968), on the other hand, considers it as the 'language of science'. Cluysenaar (1976) looks at it slightly different as the language system itself and speech expectations, whereas Bally (1951) views it as the 'language of the abstract'.

Only on the level of norms a group of people can judge what is normal and what is not. The examples concerning the sense of appropriateness are plenty; let's consider the following:

> 'This person doesn't look normal' if we take this utterance and analyze it on the level of appropriateness, we are going to see that the look of this person doesn't look normal

prior to the appropriate looking of an acceptable person. In other meaning, we should say that this person is biologically abnormal.

➤ What would you say to a person who violates the norms of dressing as in coming to his wedding wearing jeans, or coming to work with a pajama? You could possibly say that this person is out of mind. Why? Simply because he disobeys the rules of an appropriate way of dressing.

Similar to the abovementioned examples, same thing goes with language behavior. Like any other human activity, language (in this case, English Language) has its own rules or what linguists and stylisticians call the norms of language. In literary domain, the latter can cause a great disturbance to a non-native reader especially when he/she encounters a stylistic deviation. Deviating from the normal use of language can be more shocking and difficult to a foreign reader than a native one. The latter, native speaker, always has the advantages because he/she is born and brought up in the particular linguistic and cultural setting, thus he/she acquires the language (the mother tongue) and its rules of appropriateness from which he/she can use language in a spontaneously and unconsciously manner. Crystal and Davy (ibid: 5) confirm.

The native speaker of English of course has a great deal of intuitive knowledge about linguistic appropriateness and correctness – when to use one variety of language rather than another – which he has amassed over the years. He will probably have little difficulty in using and responding to the most 'ordinary' uses of language, such as the everyday conversation which occupies most of our speaking and writing lifetime. Normally, in such a context, mistakes, if they occur, pass by unnoticed or are discounted as unimportant. It is with the relatively infrequently occurring, more specialised uses of language that the average English user may find difficulty.

In contrary to the native speaker, the foreign reader who is absolutely 'one of those most at a loss in this matter' (ibid: 6) does not acquire a foreign language in a naturally, intuitively, or instinctively way. What this learner absorbed from the target language is only what he/she learns in English classes; where he/she learns vocabulary, grammar, and sometimes some notions on how to use proper manners such as opening and closing lines in a letter. The intuitive absence of linguistic appropriateness within the foreign learner makes the problem in the case of literature, where deviation from the normal use of language leads to the lack of the appreciation of literature. Because, the correctness of grammar and facility are not enough in dealing with the norms of language, therefore, cultural dimension plays a great role for the adaptation of a foreign speaker in an English situation. In this respect Crystal and Davy (ibid: 7) point that:

If a foreigner hopes to come to an English-speaking culture, then, he should not be in the position of having to make use of one variety of English in all situations, as so often happens. He needs to be fluent, and fluency should be here measured by his ability to conform in the approved manner to many disparate sociolinguistic situations. He needs to develop a 'sense of style', as it is often called - a semi-instinctive knowledge of linguistic appropriateness and (more important) taboo, which corresponds as closely as possible to the fluent native speaker's. But his ability does not come easily, and in many language- teaching institutions there is insufficient training for it ever to be gained at all.

2. Increasing the Understanding and Appreciation of Literary Works

Whenever we try to get a linguistic interpretation of a literary piece, be it a poem or a novel, we have this kind of curiosity of whether a particular meaning or effect has been tackled, going from top of the literary text to its bottom trying to back up our own interpretation to make it

valid. In this respect, stylistics provide a description based on actual features of the text where it replaces a sporadic approach with a systematic one, by this the interpreter of the text can cover all that is interesting in the text and so confirms that no word that has a significance is ignored.

As illustrated in the figure below, literary criticism possesses three processes: description, interpretation, and evaluation. These three procedures work as ordered where interpretation comes before evaluation, and description comes before interpretation.

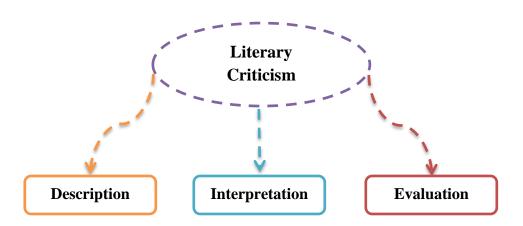


Figure 2.3: Literary criticism processes.

What these processes mean is that: **description** deals with the (i) description of the object, situation, or content in concrete term. (ii) Report what happened in the interaction, experience, or situation. (iii) Point at what was said? What did you see? And what did feel when dealing with the text? **Interpretation** is concerned with (i) thinking of possible explanations for what you've observed or experienced during reading the text. (ii) Explaining and interpreting the spoken words and actions. (iii) Spotting adjectives to explain an experience or a situation. (iv) Trying to provide a summary about what you have understood sustaining your argument with cultural information. **Evaluation**, on the other hand, is concerned with (i) the assessment of what you observed and experienced. (ii) What impression did the text let on your personality? (iii) Giving suggestions on what might you do or say if you were a member of the text's character or the writer.

The aforementioned processes work distinctly when dealing with the analysis of literary texts; starting with description and ending with evaluation of the text. However, stylistic analysis starts with linguistic facts, by relating description to interpretation. And formal features to their artistic function. See figure below:

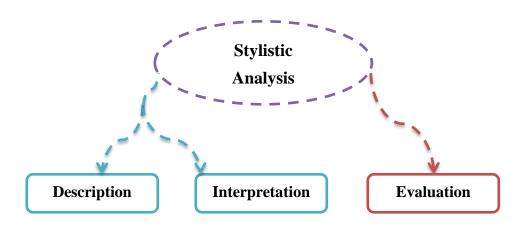


Figure 2.4: Stylistic analysis processes.

By using a stylistic analysis on any piece of literature, we are going to extract the choices that the writer uses in his/her way of writing. Indeed, in literary creation, the author has the independence in making linguistic choices. These choices are the switch between one word and another, a structure and another, etc. in addition to that, those choices can be distinguished into two kinds of choices:

- ❖ First, the breaking of the normal maxims of the linguistic structure. By linguistic structure, it means the phonological, grammatical, lexical or semantic one. This process is called **deviation**; to add more about what I've said about the former concept in previous section (I.3.1) deviation in literary language is defined, as Leech and Short (1981: 48) define it, 'The difference between the normal frequency of a feature, and its frequency in the text or corpus'.
- Second, the overuse of the same particular linguistic feature, that is to say **repetition**. This kind of choice gives the writer a privilege to use of **alliteration** which is the

repetition of initial consonant sounds, **assonance**: a close repetition of similar vowel sounds, usually in stressed syllables, and **consonance** which is the close repetition of identical consonant sounds before and after different vowels.

Both of these choices (deviation and repetition) leave a psychological influence on the mind of the reader, by making a feature stands out, they effectually shack and disturb reader's schemata, furthermore, they push his/her curiosity toward the norms of language, therefore treating the text in a deeply manner. The merging of the choices in hand (deviation and repetition) highlights a linguistic feature against the background of the norms of language; this leads to what is called **foregrounding**. The latter, so to speak, is defined by Havranek (1932: printed in Carter, 1979: introduction.) as '...the use of the devices of the language in such a way that this use itself attracts attention and is perceived as uncommon, as deprived of automatisation, as deuatomatised'. Foregrounding is considered as an important aspect in the stylistic study of literary texts, thus it helps in the increasing of the appreciation of the literary works.

3. Helping to Achieve Adaptation in Translation

The study of stylistics shows to us that all languages possess different varieties for different functions, and each variety has its own norms, powers, and effects. So in translation, it's a hard task to just convey the original meaning from the original text to the target language. Relatively, the outcome of the translated text must be equivalent to the original one in terms of language type and effect. That is to say, a good translation should be able to make the reader feel the power and the natural sense of the target language similar as if he's reading the original text. That is to say, if the original text has sense of humor, the translated text should also have a sense of humor, if the former is ironic, the latter must also be ironic, etc. bottom line is that the language of translated text should contain the same characteristic forms and formulas of the original language of the text otherwise the reader may get into a misunderstanding of the translated text or the power of language loses it strength on the reader. Let's take for example a translated utterance from Arabic to English:

- In Algerian linguistic context (particularly religion), to swear with the name of God, has a great influence on both speaker and hearer. Both of them know its power, its appropriate use, and its effect. Hence, the translation of such statement should have the same features

and characteristics of the original one. If we use the original text 'أقسم بالله العظيم ثلاثا' to convince someone that what we are saying is true and honest, its translated version must have the same power of convincing otherwise you can keep swearing till the last breath and no matter how many times as in 'I swear a God three times'.

In this case, when translating a literary text, a great attention should be paid to a cautious understanding of the level of conventionalism the original text belongs to. Stylistic study shows to a reader of a translated language how genuine is its translation and how equivalent its interpretation should be. For that reason, a translator should be aware of all the dimensional aspects of translation naming: linguistic translation, cultural translation, pragmatic translation, and so on.

VI. STYLISTIC ANALYSES AND INTERPRETATION

1. General Characterization

Stylistic analysis like any other kind of analysis, has its own approaches, methods, and purposes, Ullmann (1971) describes its mechanism as followed: '...it takes a particular device in a language ... and examines the different effects which emanate from it'. However, before getting into a deep explanation of this citation, there some important points one should point at; that is to say: when a literary reader adopts a stylistic approach in analyzing and interpreting a piece of literature he/she frequently comes across stylistic concepts such as 'stylistic patterning', 'linguistic patterning', 'stylistic devices', and 'stylistic function'. Any lack of understanding these concepts and their standing in stylistics will lead to the failure of the analysis. Consequently, it is highly recommended to introduce and clarify them at least at the level of this investigation.

Starting with the notion of linguistic and stylistic patterning: these two concepts are misunderstood to be interchangeable, yet, to some extent that would be true. In one hand, the former can be the latter when only comprehended prior to a comparison with other linguistic patterning available in language system. On the other hand, the latter can be the former when it is taken on its own in clean linguistic terms. In contrary to this, linguistic patterning and stylistic

patterning differ from each other in the nature of analysis. The first analysis (linguistic) concentrates its attention with a buildup of words attached into sentences systematized by grammatical rules, it just explain how they are put in to use. The second analysis that is stylistics goes far beyond from what the former does, it is concerned with the exploration of the reasons behind the patterning of a literary text in a particular linguistic behavior. Yet again, the bound between these two kinds is invincible to be broken because they are interdependent in sense that every linguistic patterning is potentially stylistic, and every stylistic patterning is originally linguistic, Taylor (1980). In other words, it is quite impossible to achieve a stylistic analysis without basing on a linguistic analysis of linguistic features.

Having established an understanding about linguistic and stylistic patterning, now we can deal with the notion of stylistic device and stylistic function, in which the latter is tightly related to linguistic patterning and stylistic patterning. To begin with is a stylistic device that notwithstanding is presupposed by many stylisticians and analysts, it will not cause any harm if a definition is provided at the present. Riffaterre (1959) in his work <u>Criteria for Style Analysis</u> suggests that a stylistic device can be any linguistic feature that is unpredictable. Likewise for Jakobson, it is any linguistic feature that stands in contrast to what is normally used in everyday language. Stylisticians recognized a great sum of stylistic devices including 'deviation', 'fronting', 'patterning of deixis', 'patterning of lexis', 'passivisation', 'nominalistion', and so many others. For general understanding, and what the abovementioned definitions imply, we can say that a stylistic device is a linguistic feature that is taken into consideration, by the analyst of a literary text, to be significant.

Behind every stylistic device stands a stylistic function, the latter is presented by Riffaterre (ibid) as followed: 'the effect of stylistic function ... depends on the effect of the sign on the addressee'. In this respect, Riffaterre identifies stylistic function with the reader's reaction i.e. the impression left on the reader's interpretation. For facilitating the comprehension of stylistic function, it would be appropriate and highly recommended to understand the distinction between linguistic meaning and stylistic meaning. Linguistic meaning deals with the surface, direct, semantic meaning of a sentence, whereas stylistic meaning deals with the investigation of the outcome and the function made by the linguistic sequence. Thus, the former meaning is overt and the second one is covert.

2. Level of Stylistic Analysis

The figure below illustrates the levels of language that stylistic tackles when approaching an analysis of a piece of text be it written or spoken. These levels contribute in an organized, systematic, and clear analysis of stylistics, Paul Simpson confirms (op.cit: 05)

These basic levels of language can be identified and teased out in the stylistic analysis of text, which in turn makes the analysis itself more organised and principled, more in keeping so to speak with the principle of the three Rs. However, what is absolutely central to our understanding of language (and style) is that these levels are inter-connected: they interpenetrate and depend upon one another, and they represent multiple and simultaneous linguistic operations in the planning and production of an utterance.

For the record, what Simpson means by the three R's is simply what he refers to the sense that:

- ☐ Stylistic analysis should be rigorous
- ☐ Stylistic analysis should be retrievable
- ☐ Stylistic analysis should be replicable.

(ibid: 04)

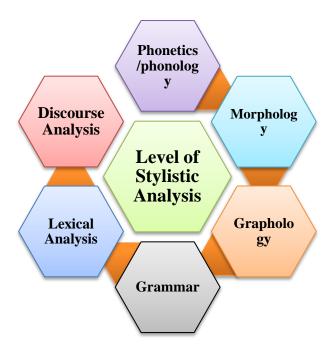


Figure 2.5: Levels of language tackled in stylistic analysis.

The foregoing levels possess a real tied interrelationship where each one depends on fulfilling the significance of another. Yet, each particular one of them has its own aim and method in interpreting a literary text

Phonetics and phonology:

This level deals with the examination of sound system in a language and studies the characteristics and potential utility of human vocal noise.

> Morphology:

This level focuses on the building-up of words, and explains the way they are constructed as well as their constituent structure.

Graphology:

This level concerns itself with the study of written language, targeting its shape and size.

> Grammar:

This kind of level aims to analyze the patterns of language and how they work in sequence; naming: clauses, phrases, nouns, verbs, words, etc. This will help distinguish and explain the norm use from the deviant one.

Lexical analysis:

The lexical analysis investigates the vocabulary used in a particular text. It studies how words and idioms are used in different linguistic contexts.

Discourse Analysis:

In this area of business, the attention shed light on the information processing (theme and rhyme), and the studying of the meaning of language used in everyday situation. This kind of study shows whether a text is coherent as well as the selecting of cohesive devices used in the text.

A precise explanation concerning the levels of language is provided in the second part of this chapter when dealing with e. e. cummings' way of writing. The above explanation is just superficial, yet, it is provided just for the sake of elucidation.

CHAPTER THREE: INVESTIGATING E. E. CUMMINGS' STYLE

The historical evolution in the fields of science, art, and literature has witnessed an enormous amount of great names of writers, poets, thinkers, scientists, and philosophers; naming: John Locke, Avicenna, Rene Descartes, William Shakespeare, Agatha Christie, Noam Chomsky and so many more. Names of scholars and writers who challenged and changed people's way of looking at things, mainly God, nature, love, life, death, time, and other kinds of dimensions. In this respect, and particularly in the field of literature the name of Edward Estlin Cummings (known as e. e. cummings) is no exception; yet, he is not just a literary writer but also a painter, more than that, he took poetry into a new whole level merging it with art and making it concrete and liveable to the reader; take for example the difference between watching a movie in an ordinary television and watching it in a 3D one. In the latter TV the watching is more realistic and concrete than the former; it makes you feel as a part of something big that is happening (as an action movie or an educational documentary). In this chapter, the discussion will be focused tackling Cummings' style starting with the basic notion of the term style, moving to the daringness of Cummings in violating the norms of both literature and painting, and then we close the discussion with the major linguistic innovations that Cummings possesses in his work.

I. THE NOTION OF STYLE

It would not be appropriate to dive into the murky waters of the Cummings' poetic world without providing, at least, a clue about the concept of style. The latter is more problematic than the concept of stylistics; it is one of the most debatable and intractable concepts in the study of language. Enkvist (1973: 11) confirms: 'As common as it is elusive. Most of us speak about it even lovingly, though few of us are willing to say precisely what it means.' Similar to the concept of stylistics, many attempts have been made to provide a definition of the term style. Crystal and Davy (1969: 09,10) distinguish ' at least four commonly occurring senses' of the term style:

1. Style may refer to some or all of the language habits of one person- as when we talk of Shakespeare's style (or styles), or the style of James Joyce, or when we

discuss questions of disputed authorship...more often, it refers in this way to a selection of language habits, the occasional linguistic idiosyncrasies which characterise an individual's uniqueness....

- 2. In a similar way, style may refer to some or all of the habits shared by a group of people at one time, or over a period of time, as when we talk about the style of Augustan poets, the style of Old English 'heroic' poetry, the style in which civil service forms are written, or styles of public-speaking....
- 3. Style is given a more restricted meaning when it is used in an evaluative sense, referring to the effectiveness of a mode of expression. This is implied by such popular definitions of style as 'saying the right thing in the most effective way' or as 'good manners'....
- 4. Partly overlapping with the three senses just outlined is the wide spread use of the word 'style' to refer solely to literary language. Style has long been associated primarily or exclusively with literature, as a characteristic of 'good', 'effective', or 'beautiful' writing....

Leech et al (1982:09) give their definition where they confirmed:

Language also varies according to the use to which it is put. While the term dialect is convenient to refer to language variation according to the user, REGISTER can be used to refer to variation according to use (sometimes also known as style).

An extra definition of style can be illustrated in this example; around the word, particular people have their own way of dressing, though the job of clothes is common among them, its way of dressing differs from one nation to another. Stylistically, language is thought to be the dress of meaning while style is considered as the fashion of the dress. In this respect, Dryden gives his view by seeing style as the '... elocution, or art of clothing or adoring though' (printed in Hough, 1969:3)

The definition concerning the concept of style can take a very long list as many stylisticians, linguists, and other scholars gave their views even though there is no unique, simple, or direct definition of the term. In this respect, the majority of the attempts have been made to define style as in the followings:

Style as choice:

In this matter, choice can be considered as a vital instrument in the domain of stylistics. Since language provides its users with multiple options in different situations, it also delivers variations and options that are available for an author in a given text depending on the context and the genre he chooses in expressing thoughts.

Style as the man:

Each and every one of us has his\her own way in doing things as each individual has unique characteristics, for example, the signature. Even biologically, humans are different from each other even for twins. There are always distinguishing features that distinguish one person from another. Therefore, in literary writing, the reader can easily differentiate between the writings of Charles Dickens and Daniel Defoe based on their style of writing. Style can be considered as the index of personality; it is shaped due to the social, political, religious, cultural, educational, and geographical background.

However, this perspective is yet to be solid as it is not without its problems. As a matter of fact, a writer may display multiple styles in many different occasions; thus, when this happens it is hardly to say that the author has different personalities.

Style as deviation:

Style as deviation is based on the violation of the rules, conventions, and regulations that control the execution of different activities. As asserted in previous section, stylistics helps to identify how and why a text is deviated. For Trangott and Pratt (1980:31) style as deviance is preferred by a term 'generative frame of reference' coined by a scholar named Jan Mukarovsky. The latter, refers style to foregrounding and confirmed that: 'The violation of the norms of the standard... is what makes possible the poetic utilization of language' (ibid). Deviation in literary writings can take multiple levels of language description, and this is vividly seen in Cummings' poetry on the level of phonological, graphological, syntactic, lexico-semantic, etc.

Style as Conformity:

The fact about 'style as conformity' is that based on its notion 'style as choice' operates. It gives the writer the first option to express himself, in sense that the writer has to decide whether to stick with the standard norms or deviate. However, a writer does not always enjoy suppleness to deviate, at least not in an academic or educational writings. Yet, conformity's Achilles' heel is that style as conformity lakes creativity, yet, whenever creativity is inserted in the style, it will become a deviation.

Style as situation:

Usually, the context determines the use of language. Some of utterances are appropriate in a given situation where some others are considered taboo, for example: a professor in an academic conference could not use a vulgar utterance such as: 'Holly s**t!!! This theory is awesome'. Style as situation deals with the matter of appropriateness that is one of the main objectives stylistics seeks to clarify.

II. THE AUDACITY OF E.E. CUMMINGS

What makes e. e. cummings an interesting case of study is his uniqueness in style of writing. Like no ordinary poet, he amalgamated between two arts, that's of poetry and painting. This takes an enormous courage and guts. Again, what makes him so unique from other literary writers is his pursuit to originality. Indeed, his language, his style, and his poems are so original, daring and challengeable, and like no other literary work any reader or critique could possibly imagine. Thus, his work is worth studying, interpreting, and appreciating.

The audacity of Cummings lies in the fact that he made his own rules in his poetry by violating the conventional norms of the poetic language. The way of defacing and manipulating the language of his writings can be seen in his use of adding and omitting prefixes and suffixes, creation of new words, the radical use of punctuation, the use of capitalization and decapitalization, and the radical morphological deviation to grammar. All this will be dealt with in the next part of this chapter.

e. e. cummings, so to speak, is considered as one of the most known avant-garde poet, with his fecund masterpieces of poetry, essays, drawings, and paintings, his works took place in the eyes of many literary critics as well as linguists all over the world. The vivid and bizarre use of language, the disrupting of conventional grammar and syntax, and above all the cleverness in designing visual effect in his poems what made Cummings a target in the domain of critics and study. In this respect, I would like to bring to attention some of the researches tackling Cummings' works on both perspectives, literary and linguistic.

1. Literary criticism Point of View

On the level of literary criticism, an extensive study is conductive on themes, images, and biographical setting in Cummings poetry. Naming for example, Richard S. Kennedy (1980) <u>Dreams in the Mirror</u> a biographical research portraying that self and writing are seen as a complementary entity for Cummings. Norman Friedman (1960) <u>The Art of His Poetry</u> seeking for the foundations of Cummings' life in the addition to the analysis of varieties and methods in his work. Another work by Wegner (1965) entitled: <u>The Poetry and Prose of E.E. Cummings</u> where

interpretation of the sense of tragedy, the relation between love and satire, and enlightening analysis of some Cummings' poem are conducted.

2. Linguistic Perspective Point of View

The linguistic studies conducted on e. e. cummings' poetry were mainly focused on the domain of phonetics, morphology, and syntax. Starting with the domain of phonetic, Paul Griffiths (1980) believes that Cummings' perception for phonetic value plays a massive role and considered as a starting point in constructing new patterns of context. Funkhouser Linder and Daniel C. O'Connell (1984) used an experimental test by recording the reading of Cummings' Buffalo Bill's, Dying is fine but Death, in Just_, and O sweet spontaneous to spot and tackle the acoustic tools, pitches, and varies forms of pauses. In the field of morphology, works that dealt with Cummings' works can be seen in Richard Cureton's essay (1990) E. E. Cummings: A Study of the Poetic Use of Deviant Morphology and in Visual Form in E. E. Cummings': No Thanks where he discussed the importance of the visual forms and does it influence and effect the phonetic, syntactic and narrative structures. Regisl Welch (1984) dealt with the linguistic painting of Cummings. According to the domain of syntax, Docherty Brain (1990) approached the transformational grammar perspective to analyse the syntactic deviation in Cummings' work.

III. E.E. CUMMINGS' LITERARY WORK AS AN ART

It is a quite known fact that e. e. cummings is considered to be a successful poet and a painter; his success in both fields was remarkable and still. One may ask: what has art to do with the main objective of this thesis? Well, it has everything to do with it. If we take a closer look at Cummings works in literature and painting, we will see that both of his writings and visual explorations are interconnected. Therefore, understanding the link between his writings and drawings may help us in decoding and decrypting his poems. Yet the right question to be asked in here is: to what extent or on what measures can we consider Cummings as an artist? Even this question may seem unnecessary to deal with, or even bother to ask since we are dealing with the literary work of Cummings only. However, and again the answer to this question will serve a great deal to the next chapter where the implementing cryptology in decoding his poems. The

answer to the question asked above leads us to ask another question which is: is e. e. cummings an artist because he and some critics regard him as such?

1. Cornelius Carman Cunningham's ten factors.

A closer examination of Cummings' literary works as an art is based on Cornelius Carman Cunningham's ten factors. In his book, <u>Literature as a fine art, analysis and interpretation</u> (1941) he believes that what makes a literary work a fine art is by applying on it the following factors or qualities: universality, individuality, suggestiveness; psychical, or aesthetic, distance, unity, harmony, variety, contrast, balance and proportion, and rhythm. Therefore, these mentioned factors are used as criteria for our examination in addition to supporting examples from Cummings' poems taken from George J. Firmage (1923) <u>E. E. Cummings Complete Poems 1904-1962</u>

A. Universality:

Universality is defined by Cunningham as: 'The degree or extent to which the work of art possesses an aesthetic, emotional or thought content that gives it significance as a commentary on life' (1941:46). In other words, universality is an artistic literary entity. Aggertt and Bowen (1966:105) asserted that universality 'deals with human motives and experiences common to all men'. Cummings' poem dying is fine) but death addresses death versus dying and how they both have completely different notions. Yet they are the most common things to all human beings. For Cummings 'death' is 'a blight upon happiness, a great misfortune which shatters the illusion of security of those still breathing.' Robert Wegner (1965:48). 'Dying' on the other hand, is 'an invisible transformation or change of condition that man to no great extent has been able to alter or impede or ritualize or squeeze into a pattern of conformity.' (Ibid: 49).

B. Individuality:

The second factor of literature as an art is 'the degree to which in whole or in part, the particular conception and execution differs from any and every other concept and treatment.' (op. cit: 51) in other words, individuality, so to speak, is what makes a particular literary work differs

from other literary works thanks to its characteristic features and qualities. Individuality can be seen vividly in Cummings' works, who is considered by Time magazine (1962: 102) as 'a man who perfected the idiom of American common speech'. Cummings, with his newness and uniqueness into language brought a new challenging perspective toward literature. An illustration of his freshness into language can be pointed in his poem <u>luminous tendril of celestial wish</u> where he coined new words. Thus his individual use of language as a characteristic feature has a pragmatic reference more than the semantic one. See the example below:

luminous tendril of celestial wish

(whying diminutive bright deathlessness to these my not themselves believing eyes adventuring, enormous nowhere from)

querying affirmation; virginal

immediacy of precision :more
and perfectly more most ethereal
silence through twilight's mystery made flesh—

dreamslender exquisite white firstful flame

—new moon!as(by the miracle of your sweet innocence refuted)clumsy some dull cowardice called a world vanishes, teach disappearing also me the keen

C. Suggestiveness

Suggestiveness deals with the interpretation of the reader on the literary piece that he faces. Cunningham (1941: 58) defines it as 'the degree to which the work of art requires that the observer or hearer shall translate it into terms of his own experience and imagination'. In this respect, the works of Cummings is considered, among other things, as 'unconventional ... capitalization ... and individual letters to produce visual typographical forms' Wegner (1965: 142). Best example for this factor can be illustrated in Cummings' poem mOOn Over tOwns mOOns where he suggest the rising and the falling of the moon by the controlling of capitalization of the 'O's' at the beginning of the poem and the capitalization of every letter except the 'O's' at its end. Here, Cummings is suggesting the rising and the falling of the moon, however, through his own style, Cummings allows the reader to translate into his own experience and imagination the movement of the moon.

m**OO**n **O**ver t**O**wns m**OO**n

whisper

less creature huge grO

pingness

whO perfectly whO

float

newly alOne is

dreamiest

oNLY THE M00N o

VER ToWNS

SLoWLY SPROUTING SPIR

IT

D. Psychical, or Aesthetic, Distance

For Cunningham (1941: 36) Psychical, or Aesthetic, Distance is 'the degree to which the artist has presented a sense of unreality in his work, thereby attaining a result which will never be confused with activity.' This factor, to some extent, deals with the transcendent way of writing. Transcendentalism, as Friedman (1962: 16) defines it the 'freedom from limitations and has its source in a sinless universe ... involves an opposition that illustrates this general freedom in a particular way....' The flavour of unreality that floods many of Cummings' work may be richly seen in his poem who know's if the moon's:

who knows if the moon's a baloon, coming out of a keen city in the sky—filled with pretty people? (and if you and i should

get into it, if they should take me and take you into their baloon, why then we'd go up higher with all the pretty people

than houses and steeples and clouds:
go sailing
away and away sailing into a keen
city which nobody's ever visited,where

always

it's

Spring)and everyone's in love and flowers pick themselves

In this poem Cummings presented ideas that are vastly dissimilar and contradicted such as the true man and woman have no boundaries in exceeding the 'real' world's borders and live in a more real one where switching from one kind of a feeling to another, Friedman (ibid).

E. Unity

According to Cunningham (1941: 24) unity is 'the dominant or fundamental conception which controls the whole and gives significance to its parts'. In any literary piece unity is what makes all the elements in a piece of writing fit together to create a harmonious effect. In addition to that, its necessity in an artistic literary work lies in its affective understanding. Cummings' novel The Enormous Room 1922, speaks about his imprisonment in a French camp prison during the First World War, however, For Friedman (1964: 27) 'the structure is basically autobiographical, it so happens that [the total] incident was organically complete in itself....' Unity can be achieved by the emotional tone of the book, as it happened in Cummings' novel, it was found in the experience itself.

F. Harmony

In a literary work of artistic value, harmony; as Cunningham (1941: 24) defines it, is 'the relationship among the parts and between the parts and the whole...' Cumming's only sister, Elizabeth Qualey spoke about the factor of harmony in one of his poems, in Just-.

The first and the most exciting sign that spring had really come was the balloonman. First you hear his whistle in the distance; then he would come walking down the street, carrying a basket full of balloons of all colors tugging at their strings.

Norman (1958: 21)

In <u>in Just-</u>, there are two major views that emerge harmonically. The first view is that of a child's view of the balloonman and the second one is the view of the adult to him. This is shown

at two levels, (i) at the beginning of the poem where there is a sporadic word spacing, which suggest a rise of child's spring, (ii) the word spacing at the end of the poem starting with 'it's' apparently suggest the patience of an adult paying attention to the progress of the balloonman as he comes closer then withdraws.

```
in Just-
spring when the world is mud-
luscious the little
lame balloonman
```

whistles far and wee

and eddieandbill come running from marbles and piracies and it's spring

when the world is puddle-wonderful

the queer
old balloonman whistles
far and wee
and bettyandisbel come dancing

from hop-scotch and jump-rope and

it's spring and

the

goat-footed

balloonMan whistles far and wee

Firmage (1923: 27)

G. Variety

Prior to Cunningham (1941:25), in an artistic literary work, variety is what 'holds attention and interest...' so that the writer avoids violating the two previous factors (unity and harmony) he must protect the factor of variety. Cunningham (ibid) confirms 'the problem of the artist is to secure variety without breaking the patterns of unity and harmony....' The way Cummings wrote his poem <u>POEM</u>, <u>OR BEAUTY HURTS MR. VINAL</u> allowed him to secure his variety, that's by using quotations from the song <u>America</u>, the <u>Beautiful</u> and slogans such as 'Girl With Wrigley Eyes' and 'Just Add Hot Water And Serve' as showed in the following lines:

you, land of the Cluett
Shirt Boston Garter and Spearmint
Girl With The Wrigley Eyes(of you land of the Arrow Ide and Earl &
Wilson
Collars)of you i
sing:land of Abraham Lincoln and Lydia E. Pinkham, land above all of Just Add Hot Water And Serve-from every B.V.D.

Firmage (1923: 228)

H. Contrast

Cunningham (1941) sees the factor of contrast similar to a human being's feelings and responses. Indeed, what makes our personalities as human is the way we feel and the way we response to different situations. In this respect, a literary work is best understood when feelings and responses are put to oppose each other.

I. Balance and Proportion

These two factors cannot be separated, as each one is complementary to the other, they are frequently attainted together in an artistic work. Cunningham (1941: 93) defines balance as 'that factor which provides equilibrium among the significant parts...' whereas he (ibid: 94) defines proportion as 'that factor which gives to each part its suitable relative amount, dimension and

weight as related to the whole.' Because of Times magazine article, in titled <u>Personality</u> (1952: 67) Cummings wrote <u>oil tel duh woil doi sez</u> in dialect so that he creates balance and proportion between the dialect and the identity of the speaker. Dialects such as 'Fur Croi saik' and 'givusuhtoonunhuhphugnting' are used in the poem to show the true identity of the speaker in a complete version. The way of writing this poem has been written dialectically otherwise the reader might not be able to enjoy the poem regardless of its harsh language.

J. Rhythm

In a literary work, Cunningham (1941:25) presents rhythm as the 'the fundamental motion produced by a release of energy alternating with rests'. Cunningham (ibid: 33) also believes that rhythm can be divided into two entities; (i) rhythm as the **carrier** of literary works' content, (ii) rhythm as the **imparter** of that content to a reader of an artistic literary work. In the poem <u>hist</u> whist Firmage (1923: 28) the factor of rhythm is dynamic asset:

hist whist

little ghostthings t

ip-toe

twinkle-toe

little twitchy

witches and tingling

goblins

hob-a-nob hob-a-nob

little hoppy happy

toad in tweeds

tweeds

little itchy mousies

with scuttling

rustle and run eyes and hidehidewhisk look out for the old woman whisk with the wart on her nose what she'll do to yer nobody knows for she knows the devil ooch the devil ouch the devil ach the great green dancing devil devil

wheeEEE

devil

devil

As it is shown in the poem above, Cummings' use of rhythm, in one hand, as imparts takes the reader back in time to the childhood moment, that's by a re-creation and reproduction of children's sounds 'hob-a-nob,' whish,' and whee EEE. On the other hand, Cummings also used rhythm as carrier that lies in the typographical order of the poem, to show the production of the sound and how children say it.

According to the above analysis confirms, it is quite crucial to say that certain literary work by e. e. cummings possess artistic literary characteristics of universality, individuality, suggestiveness, psychical or aesthetic distance, unity, harmony, variety, contrast, balance and proportion and rhythm. Thus, it is appropriate to collude that Cummings' literary work are art prior to C. C. Cunningham's ten factors.

III. E. E. CUMMINGS' LINGUISTIC INNOVATION

1. E. E. Cummings' Perspective Toward poetry

One of the highest forms in literature is the language of poetry, in particular the modern English poetry, which is characterized by the escaping from the ordinariness through the poet's manipulation of linguistic deviation. The later is due to the limit of communication between the writer and the reader. In this respect, e. e. cummings proved the uniqueness of the modern poetry where the appreciation of his poetry lies in the analysis of foregrounding and deviation. In this section, the discussion sheds light on Cummings' foregrounding in art and poetry, in addition to linguistic manipulations, innovations and deviations that lay in the form of the text, capitalizations, punctuations, affixations, compounding, conversions, transference, and honest deception. However, before getting into the gloomy world of Cummings way of writing, it is to a great importance the take a peak about Cummings' growth as a poet. This does not mean to speak about his personal life nor the way he lived it, but I will try to highlight the most milestones that influenced Cummings' way of writing as a poet.

Cummings who may be considered as one of the revolutionary modernizers in the language world of poetry has an interest in literary language and libertine orientation toward the orthodox norms of poetry. This could be resulted due to the influence of the Greek language and literature on Cummings' progression as a poet. Indeed, prior to Catherine Reef (2006: 10) <u>E. E. Cummings a Poet's Life</u> Cummings joined Cambridge where he received courses emphasized ancient and foreign languages such as Latin. Richard Kennedy's (1994: 17) <u>Dreams in the Mirror</u> confirms the massive influence of Cummings' classical languages studies on his poetry:

The language study made him intensely aware of the range and possibility of the English language; it made him conscious of the literal meanings, of etymological roots, and of cognates and related words in ancient and foreign languages. It stretched his vocabulary and embedded a sense of syntax in his very bones.... He came to understand linguistic theory in a practical way.

Kennedy (ibid: 18) believes, through his investigation of Cummings' biography, that thanks to Cummings' readings in <u>The Greek Anthology</u> Putman (1917:27) he adopted models for epigrammatic poem with its forcefulness and use of linguistic work-paly.

Prior to Kennedy, there are three different poetic styles Cummings possesses in his poetry. These styles are often combined together in one poem in the consideration that this poem may be a melting pot of more than one style.

> Lyric and mythic style:

What characterizes this kind of style is the idealized and mythic approach to life. In addition to that the language used in this style is simple and clear with casual and familiar phrasing and grammar. Sometimes it happens that a reader may find change in spacing or syntax, however, that alteration is intended to improve the significance of the tranquil atmosphere and imagery. Cummings' much stable, continuing, and appreciated work is the one written in this kind of style.

> Satiric style:

In this kind of style, Cummings expresses a rejection toward life and/or society, but he worships sex, that is considered as a dirty, yet, an essential physical endeavour. Cummings' poems that possess this kind of style include drunks, prostitutes, policeman, generals and national leaders. By using this kind of style, Cummings often uses a well-established verse form more likely as the ballad or sonnet. This use of verses is for the sake of creating an ironic contrast between the subject and the form of the poem.

➤ Modernist style:

Kennedy (ibid) relates this kind of style to the term Hephaestian. By Hephaestian, he means the bending, breaking, twisting, mending, reshaping the functions of the mythic craftsman. In other words, Cummings' ways of bending and reshaping language is comparable in certain respects to the Hephaestus analogue. This made an impact on the modern poetic language as Cummings tried to embody the spirit of spatial arts in his way of writing, in particular, implementing artistic features in his technique such as elliptical statements, distorted syntax and typography, and surprise and shock in the images are some of the characteristics of this Hephaestian style.

In contrast to other poets' view toward the function of the poet, Cummings' has a vision of his own to which it took the function of the poet to a new light. Kennedy (ibid: 128) quoted from Cummings' unpublished manuscript Miscellaneous Notes [for a poetic theory] (1892: 42)

The day of the spoken lyric is past. The poem which has at last taken its place does not sing itself; it builds itself, three dimensionally, gradually, subtly, in the consciousness of the experiencer.

Cummings' daring poetic innovation as a craftsman poet had varied feedbacks from readers as well as critics. In this respect Kennedy (ibid: 126) speaks about the factors behind the cons and pros of Cummings' style, he describes the Hephaestian style during Cummings' career, where linguistic distortions are automatic, typical or jarring rather than elegant and skilful. However, when this style is mastered, the feedbacks are of great complexity, displaying considerable aesthetic value and depth. Kennedy (ibid). The reading and appreciation of Cummings' poetry lies on the mixture and the quality of his verses. Cummings has multiple styles in his writing that, on one hand, indicates the complex of his personality and creative vision. On the other, Cummings' failure to merge the three styles (lyric and mythic, satiric, and modernist) may show a certain of lack of discipline and maturity. Therefore, the appreciation of Cummings' poetry depends from one poem to another depending on the success or the failure of his style.

2. E. E. Cummings' Foregrounding in Art and Poetry

Having established some basic notions concerning Cummings' style, it remains for us now to consider the factor behind Cummings' acme of his work as a poet and a painter. What makes Cummings' work one of its kind is his deviation from the conventional norms. In the field of literature as well as art; this deviation is called 'foregrounding'. The latter, is a term coined by the theorist Mukarovský (1932-1964). For him, foregrounding can occur in everyday language; such as spoken form or written one, yet, at this point the occurrence of foregrounding is at random and it has no systematic design. However, when it comes to the fields of literature and art, foregrounding is intentional and hierarchical followed by a systematic design to reach a linguistic or artistic deviation. Leech (1968: 57) confirms: 'Such deviations from linguistic or other socially accepted norms are labelled foregrounding, which invokes the analogy of a figure seen against a background.'

As all knows it, literature and art share similarities with each other. Therefore, foregrounding can be found in both fields. This proves that Cummings did not deviate from the conventional norms in literary work only, but also in his paintings. The uniqueness of a painter's masterpiece lies not in his ordinary reproduction of a certain landscape, still life, or a figure, but in violating the rules of a regular painting, particularly in abstract paintings.

Foregrounding is a term coined in contrast to the term automatization, that is to say 'deautomatization of an act'. By deautomatization, I mean to make the familiar unfamiliar. This is vividly seen in Cummings works (literary and painting). The purpose behind defamiliarization is to shake the schemata of the readers and that's by challenging their imagination and making forms difficult. Thanks to foregrounding, Cummings managed to disturb the schemata of his readers where he obliged them to get involved with heart and soul in his world of poetry.

3. E. E. Cummings' Linguistic Deviations

The appreciation of Cummings' poetry is greatly associated with the analysis of foregrounding and deviation. The latters are complementary to each other as deviation is the most significant means of achieving foregrounding, whereas foregrounding is the linguistic deviation

and the foregrounded is the ordinary text that's been deviated. As mentioned in the previous chapter, there are many stylistic deviations, however, I'm going to discuss only three linguistic deviations namely: Graphological, lexical and semantic deviation. The discussion sheds light on these particular deviations because they prevail in Cummings' poetry.

A. Graphological Deviation

This kind of linguistic deviation is considered to be the easiest type to identify, as it deals with the entire system of writing. By using the graphological deviation, Cummings managed to explore a unique and significant form of the shape of poetry, in addition to the technique of capitalization and decapitalization of alphabetic letters and words, also the manipulation of punctuation that gave his poems an awkward way of reading.

1) Text Format

In contrast to other writers for contracts, business letters, novels or proses, poets are not bound to the methodological way of writing poetry. They have the privilege to discard the conventional format of their text, in other words, the poet is the master of his own text. This is because the poet's format or pattern of the text is closely tied with the theme and major concept transmitted throughout the poem. This is truly vivid with Cummings' poetry. Ample examples can be found in his completed poem collection to illustrate this point. Let's take for example the poem <u>r-p-o-p-h-e-s-s-a-g-r</u> Firmage (1923: 396)

At a first glance, few people will recognize the theme of this poem, especially that its tittle is scrambled. However, reordering the scrambled letters of the tittle <u>r-p-o-p-h-e-s-s-a-g-r</u> will lead to the theme that Cummings is talking about, and that's 'grasshopper'. If we take a closer look inside the core of the poem we would see a drawing of a grasshopper; consider the figure below:

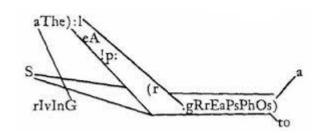


Figure 3.1: E. E. Cummings' <u>r-p-o-p-h-e-s-s-a-g-r</u>

2) Capitalization and Decapitalization

Cummings' usage of capitalization and decapitalization helped in making his poetry so unique, and that's violating the norms of capitalization. What is so special about this technique is that he capitalized what is not supposed to be capitalized and decapitalized what is supposed

to be capitalized according to the norms of capitalization rules. One of his poems with best illustrate this kind of deviation is his poem <u>fearlessandbosomy</u> Firmage (1923: 792)

fearlessandbosomy this grand: gal who liked men horses roses **&**\$(in that order)is wHISpEr it left; at the age of ysomethi ng (imagine) with, pansies

3) Punctuations

Amazing is how Cummings manipulates the eccentric treatment of punctuations in his poems. For those who are not familiar with Cummings' deviations may believe that Cummings put punctuations at random or as if he loaded a shotgun with some punctuation then shot it on his poem. But as a matter of fact, every placement of punctuation on the poem has a particular significance. This can be seen in his poem why Firmage (1923: 793)

why don't be

```
sil
iy
o no in-
deed;
money
can't do(never
did&
never will)any
damn
thing
:far
from it;you
're wrong,my friend. But
what does
do,
has always done
;&
will do alw
-ays something
is(guess)yes
you're
righf.my enemy
. Love
```

B. Lexical Deviation

One of the most dominant linguistic deviations is the lexical one; this should be placed in the central position of linguistic deviation. This kind of deviation is represented by **neologism**. By neologism, Leech (1969:42) means that 'Neologism, or the invention of new 'word' in one of the most obvious ways in which a poet may exceed normal resources of language'. In this respect,

the new created words are called 'nonce-formation' this is because they are created for the sake of particular situation, as in our case writing poetry, instead of increasing the amount of the English vocabulary. This level of deviation is commonly composed of affixation, compounding and conversion.

1) Affixation

Affixation is considered as one of the most effective and industrious means of enriching the English vocabulary. It possesses two entities prefixation and suffixation where the former is the addition of a prefix to the beginning of a word or morpheme that is already obeys the rules of morphology, in a conventional manner, let's take for example the prefix 'un'. According the affixation rule this prefix is added to a verb: (Un + Verb) for example (un-do). However, Cummings violated the norm of morphology in his poem if learned darkness from our searched world Firmage (1923: 148) by adding the prefix 'un' to an abstract noun: 'should wrest the rare unwisdom of thy eyes'. The latter, on the other hand is the addition of a suffix to the end of a word or morpheme that also obeys the morphological rules. The suffix 'ly', for example, is commonly added to an adjective or an adverb; following the morphological rule: (adjective/adverb + ly) as in (humb-ly). The violation of this rule can also be seen in Cummings' poem if i should sleep with a lady called death (ibid: 214) where he attached the suffix 'ly' to the end of a gerund:

Seeing how the limp huddling string of your smile over his body squirms **kissingly**,i will bring you every spring handfuls of little normal worms.

2) Compounding

Compounding is a technique where the writer has the ability of putting two or more word items together to create a compound word. Ample of examples can be provided concerning compound words; therefore, we can categorize them according to their nature. There are two types of compound words: words that are directly joined together such as 'sailboat', 'lifetime' and 'handbook', and words that can be joined by a hyphen as in 'brother-in-law', 'fine-tune' and 'X-ray'. Cummings, in his poem when (ibid: 442) compounds words in way that really disturbs reader's perception:

!o-ras-ourh an-dorg-an ble-at-ssw-ee-t-noth ings orarancidhurd ygurdygur glingth umpssomet hings(whi,le sp,arrow,s wince among those skeletons of these trees) when sunbeams loot

3) Conversion

This technique is another way in reaching nonce-formation. In common sense, conversion includes a word with a new morphological function in condition that it keeps its original form. This allows the shift of different parts of speech, so to speak, the alternation of a word from verb to noun, adjective to adverb and vice versa. Let's take the word 'fast' for instance; this word can be a noun, verb, adjective and adverb correspondingly in the following sentences:

- ➤ The **fast** of Ramadan will start from 29th of June till 29th of July of this year.
- Muslims fast obligatory and voluntarily.
- > The cheetah is a very **fast** runner
- > Usain Bolt can run **fast**.

Cummings' poem O Sweet spontaneous (ibid: 58) the adjective 'spontaneous' which is originally modifies a noun, functions, itself, as a noun to be modified by another adjective 'sweet'.

C. Semantic Deviation

Since figurative language is the core of poetry, semantic deviation is considered as the most significant linguistics deviation. There are many subcategories of linguistic deviation in the semantic field, however, two kinds will be approached in this section.

1) Honest Deception

As the name of this technique implies, it is in its own right paradoxical, that is to say, it is not a deception for real. As a matter of fact, it is manipulated by literary writers; not for the sake of deception but emphasizing. Honest deception includes hyperbole, litotes and irony. According to Leech (1989:166) these three items share one common goal in which they all misrepresent the truth. Hyperbole, as a figure of speech of overstatement, twists the truth by saying too much, in other word, it exaggerates in expressing a thought or a feeling. Litotes, as a figure of speech of understatement, says too little. At last, the figure of irony that points at the contradictory of what one feels to be the case. The focus in this section sheds light on the technique of hyperbole in reference with Cummings' poems.

As asserted before, the language of hyperbole expresses a thought in a manner, which is too much to take for a real. This is intended on the behalf of literary writers for which to make the readers believe in the message they deliver. By exaggerating in their writings, literary writers achieve an extraordinary effect. Cummings' poem <u>listen</u> (op.cit:34) possesses this technique where Cummings expresses in an exaggerating way the burden of carrying agony during a millennium period of time:

through day and space i saw you close your eyes and i came riding

upon a thousand crimson years arched with agony

i reined them in tottering before the throne and as they shied at the automaton moon from

CHAPTER FOUR: PRACTICAL ISSUES

Having established some theoretical basics, in the previous chapters, concerning the notion of cryptology, stylistics and Cummings' unique style. Now it is time to move to this particular chapter where we examine E. E. Cummings' selected poems; starting with the presentation of the three selected poems <u>ygUDuh</u>, <u>r-p-o-p-h-e-s-s-a-g-r</u>, and <u>the sky was</u> followed by justifying the intention behind the selection. Then, an investigation will take place concerning whether Cummings' poems possess cryptographic peculiarities or not, and if they do, will the findings of the decryption be considered as a criteria in the stylistic analysis which will be conducted at the final stage of this thesis.

I. CUMMINGS' SELECTED POEMS

1. ygUDuh

The first poem entitled <u>ygUDuh</u> (e. e. cummings, 1923:547) is selected from *lxl [One Times One]* (1944) under the sequence of 1.

```
ygUDuh

ydoan
yunnuhstan

ydoan o
yunnuhstan dem
yguduh ged

yunnuhstan dem doidee
yguduh ged riduh
ydoan o nudn

LISN bud LISN

dem
gud
```

am lidl yelluh bas tuds weer goin

duhSIVILEYEzum

2. <u>r-p-o-p-h-e-s-s-a-g-r</u>

The second poem entitled <u>r-p-o-p-h-e-s-s-a-g-r</u> (e. e. cummings, 1923:396) is selected from *No Thanks*, the 1935 manuscripts under the sequence of '*Initial Dedication*'.

3. the sky was

The third poem entitled the sky was (e. e. cummings, 1923:64) is selected from the *Tulips and Chimneys*, the 1922 manuscripts under the sequence of '*Impressions*'.

```
the
  sky
      was
can dy lu
minous
       edible
spry
    pinks shy
lemons
greens
        coo
             1 choc
olate
s.
     der,
 un
    lo
co
mo
   tive
            s pout
                  ing
                      vi
                      O
                      lets
```

4. The Intention behind the Chosen Poems

The selection of the poems mentioned above is neither coincidental nor arbitrary, yet it is intentional and deliberate based on a specific kind of criteria. The poems at hand, so to speak, share particular aspects such as newness, ambiguity, vagueness, encryption, etc... Indeed, few people are acquainted with this kind of poetry and more fewer can read them after multiple tries. These poems display the privilege of Cummings' way of writing, starting with his name, which is associated with the unconventional use of capitalization and punctuation leading to his relying on unusual skills, techniques and forms. The latter disturb readers' schemata as they encounter this unfamiliar way of writing poetry and challenge their impatience. Therefore, my selection of these poems is based on the fact that they are considered as one of the best of Cummings' poetry. So I

believe, they can teach us in most extraordinary manner the tastefulness, the importance and the appreciation of the fusion between poetry and art, sound and sense, and image and form.

To sustain the purpose behind my selection, a questionnaire is distributed to English teachers and Master students of literature. Even the selection of the participants is not arbitrary, I particularly chose them because they are keen to the domain of literature. Besides supporting the intention behind selecting these poems, the questionnaire serves another purpose, which is providing us with a specimen of a reader's reaction when s/he first encounters Cummings' poems. The questionnaire consists of two poems: r-p-o-p-h-e-s-s-a-g-r and ygUDuh, the participants are asked to give a comment on the former and answer some questions on the latter.

A. Reader's Reaction

At this section, I will present some of participants' feedback concerning Cummings' poems <u>r-p-o-p-h-e-s-s-a-g-r</u> and <u>ygUDuh</u>. This analysis is not meant for a statistical examination but rather as an evidence of how unfamiliar and difficult it is to read Cummings' work, therefore. As a start, I will begin with the first poem, presenting readers' comments, and then I move to give most common answers concerning the second poem's questions.

1) Readers' Comments on <u>r-p-o-p-h-e-s-s-a-g-r</u>

To begin with and as expected, none of the participants could guess that figure one is actually a poem. For them, the figure is just none-sense scattered words and letters with no cohesive or coherence use of punctuation. The following comments represent the participants' first impressions on the figure.

Comment One:

"... I can see a text with no coherence or cohesion. Yet I know it must have a meaning."

❖ Comment Two:

'This figure seems very complicated to understand, full of symbols and words that we can not understand'

Comment Three:

'It is a kind of unorganized, chaotic figure. I think the speaker want to describe something but he find a difficulty.'

Comment Four:

'What kind of English is this figure? It is meaningless, ambiguous, and senseless.'

Comment Five:

'It seems just like kind of game in which we are supposed to get the meaning of the text.'

Comment Sex:

'This figure shows different letters and words in missorder and words are written in capitalized'

Comment Seven:

'I am not familiar with this style of writing may be it is a representation of things that have to do with phonology'

2) Readers' Comments on ygUDuh

The second part of the questionnaire consists of a set of questions that seek to reflect on the nature of the figure whether it is a diagram, a poem, a painting, or else, the language whether it is Latin, Turkish, Indian, English, or other language, and whether the figure is readable or not. Yet again, I wouldn't expect any different reaction from the first figure.

As far as it goes for the nature of the figure, the majority could guess that it is a poem, however, with regard to language, the majority could not figure out that the language of which the figure is written is actually English language. Again, the majority of the participants believe that it is written in Turkish, whereas, the rest could not tell what language it is at all.

Prior to the above readers' feedback towards Cummings' poetry, I believe it is a quite enough evidence to believe that some of Cummings' poems do possess a flavor of cryptographic

peculiarities. On a superficial level, it is quite known that whenever we face some encrypted forms of language, written they are or spoken, we have similar reactions as the above-mentioned ones; we find them non-sensible kind of ambiguous noise to our ears. However, after being familiarized with them, after being introduced to what that 'Chinese' talk really means, and after providing us with the appropriate key to unveil its true meaning, only then we can get the big picture of what was once none clear for us. In this respect, the next section will provide a key to each poem from the selected ones for the sake of facilitating the reading of Cummings poetry and open the gate for stylistic analysis.

II. CRYPTOGRAPHIC ASPECTS IN CUMMINGS' SELECTED POEMS

Before unveiling the keys of the selected poems, first, it is for a great need to identify the cryptographic characteristics that the selected poems have. This will show us how cryptology lies between the lines of Cummings' poems, so to speak, adopting some of cryptographic characteristics. After that, we move to create a key using a cryptanalysis approach in decoding Cummings' poems, one at the time, illustrated with a detailed explanation.

As asserted in chapter one, the nature of cryptology is based on two entities, a sender and a receiver, who communicate discreetly, where their encrypted messages are based on a pre-shared key that enables them to encode and decode the content of the communication. In our case of study, it is all new whole story as Cummings' poems have similarities with the art of cryptology, yet Cummings did not leave any clues that facilitate the access to some of his poems. The latter necessitates the use of cryptanalysis method as a tool in creating a key (or keys) that makes the poems readable. Cryptanalysis is considered to be the science of cracking codes, decoding secrets, violating authentication schemes, and in general, breaking cryptographic protocols without any pre-shared key, in other words, we can purely call it the art of hacking. Therefore, the purpose of using cryptanalysis and not the conventional method in decrypting the selected poems is simply because, and as funny as it sounds, it is the violation of cryptology's norms to decode the poems –that violate the norms of traditional poetry.

When it comes to our case of enquiry, apparently Cummings did not share the way of reading his poems with his readers. He just wrote them and left it for the reader to do the rest. Based on this notion, there is no particular way that facilitates the readings, so, the latter is considered as the main purpose of this thesis.

1. Identifying Cryptographic characteristics in Cummings' Selected Poems

Having established a clear explanation concerning the link between e. e. cummings and cryptology, now, I move to highlight cryptographic aspects that the selected poems hold. This kind of pre-analysis is not based on cryptographic criteria; that is to say, I am not going to approach any kind of cryptologic model in doing so. Yet, I will try an attempt to explore and extract the very aspects that make the poems look encrypted and obscured to the reader. The examination tackled here is based on the conventional principles of cryptology, which is the transformation of the message from a plaintext to a ciphertext. However, in our case, the process is going backward i.e. from ciphertext to cleartext.

How astonished and shocked we are when we face something that shakes our perception, something that is out of the ordinary norms that we know and live on; whether in the way we speak, eat, dress, write, etc. and the poem entitled <u>ygUDuh</u> is no exception. What makes this poem looks encrypted or has cryptographic characteristic is the unreadable way it is with a difficulty of pronouncing its title, as is the rest of the poem. In addition to that, the poem has no possession of punctuations that make it hard to utter the meaning of the written lines.

Similar to ygUDuh is the second poem in my selection, the poem entitled r-p-o-p-h-e-s-s-a-g-r. This poem does not differ from the first one, and it definitely does not make it any easier for the reader to comprehend. The scattered letters, words, and symbols incapacitate the ability of recognizing the poem as a poem; giving it a kind of form that is far beyond the ordinary forms of traditional poetry. Moreover, the scrambled letters at the top right of the poem is considered as the title of the poem as well as the first line of the poem, this makes the poem kind of difficult whether that scrambled word is actually a title, the first line of the poem, or both. In addition, the technique of tmesis, which is defined by the Dictionary of Literary Terms and Literary Theory (1999: 920) as: 'the separation of the parts of a word by the insertion of another word or words.' Plays a great role is providing the poem with a cryptographic touch. This is vividly seen in the penultimate line 'rea(be)rran(com)gi(e)ngly'. Then, the unorthodox use of punctuation in which diverges reader's track on the poem, leaving it with no coherence and cohesion. At last, the form

of the poem relies on the 'rebus' technique which is 'a representation using pictures or icons instead of words' Barry J. Black (2010:60). The latter, is similar to a technique in the field of cryptology called 'steganography' so to speak, it depends on the stashing the meaning of the message inside another message so that the very existence of it is concealed. Shon Harris, (2007:766) confirms that 'Steganography is a method of hiding data within another media type, such as a graphic....'

As far as the third poem the sky was goes, it does not seem hard to read or understand, yet, it possesses many violations on the level of graphology and syntax, yet, this does not mean that the poem does not need a key, not for the sake of reading only, but also for the sake of providing a credible interpretation.

Closing this analysis with the last poem <u>SNOW</u> has similarities with the second poem, as the distortion of words and punctuation gives it a cryptographic relish. The technique of nonceformation also provides the poem with unreadable phrases as in 'BYS FLUTTERFULLY IF'. In addition to tmesis such as '(endbegi ndesginb ecend)tang', compounding as in 'endbegi', '-ing-', and 'ecend)tang'.

Prior to the above examination, I believe, it is quite obvious that the selected poems do look encrypted. The next step to come is concerned with creating a key, a method, a way to which readers are able to read the poems using cryptanalysis method.

1. Decryption of the Poems Using Cryptanalysis Method

As asserted before, cryptanalysis is considered as the art of hacking; this means that I have no pre-shared key, therefore, I will start by making assumptions and provide the poems with contextual properties. The purpose behind this section is to make the poems readable and only readable, it does not attempt for interpreting them, as well as, the keys I will provide here, will not influence readers' interpretations, they will remain objective contributing in making the selected poems comprehensive and manageable to be read.

A. Deciphering the Poem ygUDuh

One of Cummings' secretes concerning his poetry is that most of his poems are meant to be heard and not read, thus, <u>ygUDuh</u> is no exception. The only way to decipher this poem and make it readable is to read it out loud. However, even so, still it is hard to pronounce the word <u>ygUDuh</u>. Here, I rely on the substitution ciphering which is the system that relies on replacing each letter by a different letter, a sound by another sound, and a symbol with another symbol. This kind of process facilitates the understanding of the replacements between parts of speech (letter to word, word to sentence). With that being said, the table below details the decryption of the poem.

According to table 01, the poem is divided into three sections: ciphertext, decryption, and cleartext. The ciphertext means the original form of the poems, i.e. as written by the poet, whereas, the decryption lies in the phonetic transcription that shows how the poem is supposed to be pronounced and read, and at last, the clear text which is the readable text. The latter, as shown in the table, is divided into two sub-sections and that's where the first part sounds spoken in vernacular language (American dialect) as seen in 'you gotta' and 'you donnu' and the second part is written in Standard English language to make the poem more comprehensive and accessible for stylistic analysis which is yet to come in the next section.

Ciphertext	Decryption	Cleartext		
ygUDuh	[jəˈgɑːdə]	you gotta	you got to	
ydoan	[jəˈdəʊn/ jəˈdɒn]	you don	you don't	
yunnuhstan	[jənʌnəstæn]	you don undestand	you don't understand	
ydoan o	[jədɒnˈnəʊ]	you donnu	you don't know	
yunnuhstan dem	[jənʌnəstæn dem]	you don undestan dem	you don't understand them	
yguduh ged	[jəˈgɑːdə get]	you gotta get	you got to get	
yunnuhstan dem doidee	[jənʌnəstæn dem	you don undestan dem	you don't understand them	
	'dɜːdɪ/ 'dɜːtɪ]	dirty	dirty	
yguduh ged riduh	[jəˈgɑːdə get redə]	you gotta get rida	you got to get rid of	
ydoan o nudn	[jədpnˈnəʊ ˈnpdɪn]	you donnu nothin	you don't know nothing	
LISN bud LISN	[lisən bad lisən]	LISEN bud LISEN	LISTEN budy LISTEN	
dem	[dəm]	dem	them	
gud	[gpd]	god	God	
am	[æm]	dam	damn	
lidl yelluh bas	[lɪdəl jelə bʌs]	litle yella bastads	little yellow bastards	
tuds weer goin	[tədz wɪgaʊɪŋ]	we're goin	we are going	
duhSIVILEYEzum	[tə ˈsɪvɪlaɪzəm]	to civilize em	to civilize them	

Table 4.1: Deciphering e. e. cummings' poem ygUDuh.

So far, all I accomplished is decrypting the poem and make it readable, but the question one may ask is: how could I manage to understand the mechanism in which this poem is written? Or based on what criteria I managed to reach the readable part of the poem? Indeed, making a text readable does not mean I succeeded in providing the key to do so. The key that, hopefully, makes sense to my accomplishment lies not in the figuring out that the poem is meant to be heard and

provide it with phonetic transcription, but rather, the key underlies the substitution of the poem's elements. The table below explains how the process is done:

Letters and Words	Substitution ciphering	Plaintext
yguduh = y/gUD/duh	y = you, $d = /t/$, $duh = ta / to$	you gotta / you got to
ydoan o = y /doan / no	y = you, doan = don / don't,	you donnu / you don't know
	no = nu / know	
yunnuhstan = yu/n nuh /	y = you, nuuh= don / don't,	you don undestan / you don't
unnustan	unnustan = undestan /	understand
	understand	
yguduh ged riduh =	y = you, $d = /t/$, $duh = ta / to$	you gotta get rida / you got to
y/gud/duh ged rid/duh	ged = get, $rid = rid$, $duh = da$	get rid of
	/ to	

Table 4.2: Substitution Key Deciphering.

The table above explains the substitution process, which provides a kind of a logical sense to the pronunciation of the poem. This is done by replacing the letter $/\mathbf{y}/$ with the pronoun ' \mathbf{you} ', the letter $/\mathbf{d}/$ with the letter $/\mathbf{t}/$, and the letter $/\mathbf{o}/$ with the word ' \mathbf{know} '.

B. *Deciphering the Poem* r-p-o-p-h-e-s-s-a-g-r

Differing from the previous poem that is destined to be heard rather than read, the poem entitled <u>r-p-o-p-h-e-s-s-a-g-r</u> has another perspective to deal with. This particular poem is meant to be seen not only read. Yes, this may sound clumsy as it does not make any sense but later when analysing it stylistically, it will make all the sense in the world. However, the focus here sheds light only on how to read the poem. Therefore, for what I believe it is the best way to make this poem readable, is to start, firstly, with reordering the scrambled words such as <u>r-p-o-p-h-e-s-</u>

<u>s-a-g-r</u>, 'PPEGORHRASS', and 'gRrEaPsPhOs'. Secondly, focusing on the omitting the scattered punctuations such as parentheses, dashes, exclamation mark, colon as in 'a)s w(e loo)k', 'eringint(o-', and '!p:'. Thirdly, compounding the separated latters for instance: ':l', 'eA', and '!p:'. Finally, separate the none sense compound words, for example: 'upnowgath' 'eringint', and 'rea(be)rran(com)gi(e)ngly'. The table below, illustrate the process in more detailed manner

Ciphertext	Decryption	Plaintext
r-p-o-p-h-e-s-s-a-g-r	r-p-o-p-h-e-s-s-a-g-r	grasshopper
who	who	who
a)s w(e loo)k	a)s w(e loo)k	as we look
upnowgath	up/now/gath	up now gathering
PPEGORHRASS	PPEGORHRASS	GRASSHOPPER
Eringint(o-	Ering/int(o-	Into
aThe):l	a/T/he) :1	a 'T' he
eA !p: S a (r	eA !p: S a (r	leaps
rIvInG	rIvInG	arriving
.gRrEaPsPhOs)	RrEaPsPhOs) .gRrEaPsPhOs)	
rea(be)rran(com)gi(e)ngly rea(be)rran(com)gi(e)ngly		rearrangingly be come
,grasshopper;	,grasshopper;	grasshopper

Table 4.3: Deciphering e. e. cummings' poem <u>r-p-o-p-h-e-s-s-a-g-r</u>

The above tips, hopefully, will make sense to the poem; however, this will not provide any influence on readers' understanding of the poem. More than that, the plaintext presented in table 03, does not visualize the theme of the poem, therefore, when dealing with the analysis of the poem, it best to deal with the original form of the poem as written by e. e. cummings. This is because the ostensibly haphazard spacing, unconventional use of punctuation, capitalizations, small letters, line divisions, anagrams, and chaotic grammar are put as they are for a purpose. This means that any dislocation of any part of the poem will lead to the misunderstanding of the poem.

C. Deciphering the Poem the sky was

As mentioned in the first chapter where dealing with the historical background of cryptology. The latter can take many dimensions. Therefore, the cryptanalysts widen the perimeter of their guessing of what the key can be. Thus, one of cryptanalysis' methods in hacking the encrypted text is to investigate the social, educational, and artistic life of the coder of the message. As far as the poem at hand is concerned, the focus lies in making it readable (especially the last part of the poem).

Beginning with making the text readable, first, one should eliminate the spacing that separate word structure such as: 'can dy', 'coo 1', and 'un der'. Second, in contrast to the former step, one should compound the distortion of words such as in:

> a lo
co
mo
tive

The table below shows an illustration that makes the poem legible. The words in the decryption section are written in bold format so that they indicate the words that should be written in one unity, whereas the highlighted spacing indicate the needless spacing.

Ciphertext	Decryption	Plaintext
the	the	the sky was
sky	sky	
was	was	candy luminous
can dy lu	can <mark>d</mark> dy lu	
minous	minous	
edible	edible	
spry	spry	edible spry
pinks shy	pinks shy	
lemons	lemons	pinks shy
greens coo 1 choc	greens cool 1 choc	
olate	olate	lemons
S.	S.	
		greens coo1 chocolates.
un der,	un ge der,	
a lo	a lo	
co	co	
mo .	mo	under,
tive s pout	tive s <mark>ee</mark> pout	
ing .	ing	a locomotive
vi	vi	· ·
0	0	spouting
lets	lets	violete
		violets

Table 4.4: Deciphering e. e. cummings' poem the sky way

Having dealt with decrypting the selected poems, it is for a great importance to notice that Cummings' poems do not have a common way of decryption. As it is shown in the tables, each poem has its own unique way of reading and comprehending, this means, that we cannot generalize one way of decrypting on all Cummings' poems; each poem has its own unique style and that what makes e. e. cummings one hell of a poet. With that being said, now, I move to the final stage of this enquiry that lies on a stylistic analysis of the selected poems.

III.A STYLISTIC ANALYSIS OF THE SELECTED POEMS

Even with decrypting the poems, most people will inevitably be at a loss of what is implied and conveyed underneath the linguistic deviations. In this respect, stylistics is used, here, as a tool unfolding the true meaning hidden between the lines, revealing and decoding foregrounding, and exposing the charm of e. e. cummings' poetry. In this section, the selected poems are analysed from three levels of linguistic deviation: graphological, phonological, lexical and semantic deviations. However, for the sake of maintaining a true meaning of the poems and for the sake of reaching a credible interpretation, I will keep the poems in their original form, because any misplacement of any part from any poem will lead to a misunderstanding.

1. Investigating the Linguistic Deviations of the Poems

A. Analyzing the Poem *ygUDuh*

The poem at hand states a simple story, and yet transmits a deeper meaning. It is a kind of a dialogue consisting of two men often interrupting each, discussing their takes on America's involvement in World War II, written phonetically in colloquial language. As asserted in the previous section, the one characteristic that differentiates the poem <u>ygUDuh</u> from other Cummings' poems is its nature. Regarding the two other poems, this poem is meant to be heard; therefore it is of a great importance that the phonetic transcription strings along with the poem for the sake of making it possible to be read throughout the aural uttering.

(1) ygUDuh [jəˈgɑːdə]

(2) ydoan [jəˈdəun/jəˈdɒn]

(3) yunnuhstan [jənʌnəstæn]

(4) ydoan o [jədɒnˈnəʊ]

(5) yunnuhstan dem [jənʌnəstæn dem]

(6) yguduh ged [jəˈgaːdə get]

(7) yunnuhstan dem doidee [jənʌnəstæn dem 'dɜːdɪ/ 'dɜːtɪ]

(8) yguduh ged riduh [jəˈgɑːdə get redə]
(9) ydoan o nudn [jədɒnˈnəʊ ˈnɒdɪn]

(10) LISN bud LISN [lisən bad lisən]

(11) dem [dəm] (12) gud [gɒd] (13) am [æm]

(14) lidl yelluh bas [lidəl jelə bʌs]

(15) tuds weer goin [tədz wigaviŋ]

(16) duhSIVILEYEzum [təˈsɪvɪlaɪzəm]

1) Graphological Level

***** *Text Format:*

The poem is written in a free verse format, which means that the poet does not necessarily obey the strict traditional form or meter norms. However, that doesn't mean that he is writing without rules; it just means that he is creating and using his own system for the unique needs of his poem.

Capitalization and Decapitalization

The violation of the norms of capitalization is vividly seen in this poem. Capitalization is barely extinct, yet we can only see it in the first line, the tenth, and the sixteenth. However, according to the rules of graphology, it is so wrong to capitalize a letter in the middle of the word, but in the first line of the poem <u>ygUDuh</u> Cummings capitalizes two letters (**U** and **D**). Here, Cummings deliberately capitalizes these two words. If we go back to table 01 <u>ygUDuh</u> means 'you gotta' in the plaintext, even at this expression we cannot capitalize it as the following 'you gOTTa'. Normally the only letter that should be capitalized is the letter 'y' because it is the first letter of the first line of the poem. Even if we consider the first line as the title of the poem, as all of Cummings' poems are, we are not allowed to capitalize it the way the poet did. However, the intention behind capitalizing particularly the middle of the word is because the poet treats the poem in the spoken form rather than the written one, and the capitalization is a foregrounding

with indicates the stress in the tone of the character that is emphasizing and convincing the other part of the conversation to understand what he believes is true and right.

The existence capitalization is shown up in the tenth line in 'LISN bud LISN', this is the first time we see any full word capitalized in the poem, yet this does not mean that the rules of capitalization are not broken, the foregrounding, here, indicates a kind of anger as if the emotions took the best of one of the men who again emphasizing and stressing the other man to listen to him and understand what he is trying to say.

The last line of the poem, also, possesses a whole capitalized word as in 'SIVILEYE' where the poet foreground this part of the line deliberately to show the biggest lie the Americans' always use to justify their thirst toward blood and war.

Punctuations

Since the poem is meant to be heard and not to be read, it is understandable not to find any symbol of punctuation, instead the focus will shed light on the phonological level.

2) Phonological Level

Alliteration

The poet uses alliteration to grabs attention. The first use of it is shown in the following lines:

ygUDuh

ydoan

yunnuhstan

vdoan o

yunnuhstan dem

yguduh ged

yunnuhstan dem doidee

yguduh ged riduh

ydoan o nudn

The repetition of the consonant 'y' which represents the word 'you' is purposely use to achieve the grabs of readers' attention and make them realize and understand the involvement of the Americans in WWII.

❖ Intonation

One of the best ways of achieving a credible interpretation of the poem is the correct way of reading it out loud, therefore mastering the rise and fall of the sound in the poem has a massive effect on its meaning. The poet varies the use of rising and falling thus varies the purpose of each one of them. Let's consider

- ➤ LISN bud LISN (rising intonation) used to express strong prominence
- ➤ lidl yelluh bastuds (falling intonation) used to express irony and mocking the Japanese.

3) Lexical Level

❖ Repetition

The poem <u>ygUDuh</u> possesses many repeated expressions that indicate simple informal diction and emphasis. The table below provides the repeated words:

Words	Repetition	Line
ygUDuh	Three times	Line 1, 6, and 8
ydoan	Three times	Line 2, 4, and 9
yunnuhstan	Two times	Line 3, 5, and 7
dem	Three time	Line 5, 7, and 11
ged	Two times	Line 6 and 8
LISN	Two times	Line 10

Table 4.5: Analyzing repetition in ygUDuh

❖ Neologism

Since the poem is written phonetically, the whole text seems to be totally new, as if it is extracted from a new language that we are not familiar with. However, using the key to decipher it brings to our attention that the language used here is English language, with juxtaposition of written and spoken forms along. Neologism means the creation of new words, however in our case here, it depends on how we treat the poem, if we study it in a written form we can say that there are new words in it, but if we consider it as a spoken one, it is nothing more than drawing words on the paper, which is the case in the poem at hand.

4) Semantic Level

❖ Colloquialism

As mentioned before, the poem imitates an American accent, New Jersey or even New York to be precise. The major part of the poem's conversation remains enigmatic to us; we neither know about its topic nor much about the speaker. However, what we can grasp from his personality is his lack of identity and individuality which states him as an average member of society. The language used in the poem is vernacular, therefore, we can assume that the context where the conversation happens is far from those contexts where academic language takes place. So the place can be a bar, a restaurant, or out in the street. If we read the poem from this perspective, which is believed to be the credible way to read it, we get the bigger picture of the use of colloquial language and we can take an idea about the personality of the persona.

you gotta
you don
you don undestand
you donnu
you don undestan dem
you gotta get
you don undestan dem....

Irony

One of the poet's favorite literary devices is irony. The poem is disguised in irony and it can be seen in the concluding lines: 'lidl yelluh bas/ tuds weer goin/ duhSIVILEYEzum' which reveal the true meaning behind the words' facade. Here, Cummings offers his mocking on American foreign policy. The 'lidl yelluh bastuds/ little yellow bastards' would be the Japanese, whom America was opposing in WWII. Ironically, the language used by the speaker makes the Americans sound like the uncivilized ones. In addition, we learn that the character is a racist and the insulting tone he uses indicates that he consider himself superior.

B. Analyzing the Poem <u>r-p-o-p-h-e-s-s-a-g-r</u>

The poem <u>r-p-o-p-h-e-s-s-a-g-r</u> serves as a suitable model of one kind of poem which e. e. cummings is best known. It is a free verse poem where Cummings uses a variation of techniques in order to produce a replica of an insect's haphazard arrangements. The scrambled letters at the beginning of the poem form the word 'grasshopper', therefore, we have to assume that the main idea of the poem is talking about a grasshopper.

1) Graphological Level

***** *Text Format:*

As mentioned earlier the poem is structurally a free verse poem in which the poet employs many of his distinctive typographical devices. The poem in itself is a violation of any conventional norms of form of poetry that obligates the readers to re-read it again and again. Yet, in contrast to the analysis of the previous poem <u>ygUDuh</u> this poem must keep its original form see figure below:

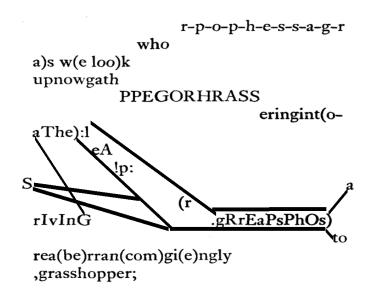


Figure 4.1: Stenography in the poem <u>r-p-o-p-h-e-s-s-a-g-r</u>

Figure 01 is a representation of stenography technique which is a cryptologic device of hiding an image or a message inside a text. Here, Cummings embedded the cubic drawing of a grasshopper that is convincing enough proof that the theme of the poem talks about a grasshopper. The visual reordering of the poem expresses how difficult it is to describe the lifestyle of a non-human thing with a human language. Therefore, the best Cummings can do is to demonstrate the life of essence of the grasshopper through placing letters, words, and symbols not at random but intentionally.

& Capitalization and Decapitalization

Smilingly to the poem <u>ygUDuh</u>, this poem has its own violation of the norms of capitalization, yet, its purpose differs from the other. The first appearance of the capital letter occurs at the middle of the poem:

a)s w(e loo)k upnowgath

PPEGORHRASS

eringint(o-

Unlike the first word of grasshopper which is scrambled <u>r-p-o-p-h-e-s-s-a-g-r</u> the second word is written all in capital letters. 'PPEGORHRASS' is purposely written in this way could signify the fact that the grasshopper is now getting closer. The way in which the poet has arranged these words provides a gradual clarification of the overall meaning of the poem. At first the poem starts with a bunch of random small letters which indicates how small things are when they are far from the naked eye as well as unidentifiable. But after reading the poem repeatedly the code in which the poem is written becomes decoded and more recognizable. Another appearance of the capital letter appears in the third time of the word grasshopper which is written in alternating capital and lowercase letters, 'gRrEaPsPhOs'. This particular format shows as if the grasshopper has gained the attention of the poet but it is still failing in its attempts to clearly get its fullness.

***** Punctuations

At a first glance, the placement of the punctuation in the poem seems to be absurd, weird, and nonsense. However, it is on the contrary. As a matter of fact, the punctuations in the poem plays a massive role is achieving its true meaning, in poetry everything happens for a reason, there is no place for arbitrariness, therefore, as stated earlier, it is strictly demanded that we treat the text in its original form because the symbols gathered in the poem possess the half meaning of the poem.

The poem starts off with a scrambling of the word grasshopper, <u>r-p-o-p-h-e-s-s-a-g-r</u>, with each letter separated by a dash mark. Deliberately carries to life the haphazard movements that a grasshopper would make. Then, the poet uses parentheses 'a)s w(e loo)k' to show the incapacity and difficulty of looking, and then calculatedly disregards the proper spacing techniques in 'upnowgath' to spell out 'up now gath' which turns into 'gathering' after the appearance the second word of grasshopper. Another unorthodox use of punctuation lies on the word leaps:

:1

eA

!p:

S

The colon symbol that separate the word 'leaps' from the poem indicate that the verb leaps is the milestone of the poem as it bridges the first part of the poem which is coded with the second part

of the poem which is decoded. One can notice that there is an exaggeration in the use of spacing and this can be seen in the 'S' of 'leA!p:S' and the 'a' of 'arrIvIng'. Both of the letters are far off the margins because they can't be contained within the page; in other words, the leap of the grasshopper is giant.

In the penultimate line of the poem, the use of parenthesis is used again 'rea(be)rran(com)gi(e)ngly', however, this time in order to decrypt the meaning the reader must at first join the letters outside the parenthesis together to form the word 'rearranging' and then filter out the letters inside the parenthesis to spell out the word 'become'. Lastly, the last word of the poem ends with a semicolon which seems to be intentional, for it indicates the continuity of grasshopper's leaping.

1) Lexical Level

* Repetition

Cummings deliberately repeated the word grasshopper four times in the poem. Although they look completely different from each other, they mean the same insect which is the grasshopper:

- r-p-o-p-h-e-s-s-a-g-r
- ➤ PPEGORHRASS
- ➤ gRrEaPsPhOs
- > grasshopper

This way Cummings simply having fun with the manipulation of the overall meaning of a poem by merely changing the way that he reorders the letters.

❖ Affixation

One of most known techniques that Cummings uses in his writing is the unconventional use of affixation (prefixation and suffixation). By adding the suffix 'ly' to the word 'rearrangingly' Cummings changed the word from a gerund to an adverb to demonstrate the evolution of the grasshopper as it gradually becomes clear to the observer and to the reader. If take a really close look on how the word grasshopper is written throughout the poem, we would notice that the

poem started with a ciphered text **r-p-o-p-h-e-s-s-a-g-r** and ended up with a cleartext which is 'grasshopper'.

1) Semantic Level

The speaker in the poem seems as if he doesn't understand the purpose of apparently random situation. Through the first part of the poem (r-p-o-p-h-e-s-s-a-g-r/ who/ a)s w(e loo)k/ upnowgath) he feels confused or helpless toward the event, this could be because the grasshopper is arbitrary and non-human creature. The anagrams in r-p-o-p-h-e-s-s-a-g-r and 'PPEGORHRASS' seem strange and unfamiliar to the speaker's tongue, therefore it is hard for him to identify what is being describe. The word 'leaps' makes a major change in the tone of the speaker as it transfers him from the puzzlement to the recognition and amazement, as well as the emphasized 'leaps' made the speaker realize that that everything in life is meaningful, not meaningless. Everything happened in the poem has a significant purpose; from the misuse of the human language, unorthodox use of capitalization and punctuation, to the choppiness of the lines such as the 'leA!p:'.

A. Analyzing the Poem the sky was

Before I start my analysis of the poem, first, it seemed to me that it would be to a great importance and help to fill the poem with a visual background that later will help facilitate the analysis. The visual background consists of a natural view full of multi colored sky, mountains, and lands. However, all the colors I put in the image is extracted from the poem itself. See figure below:

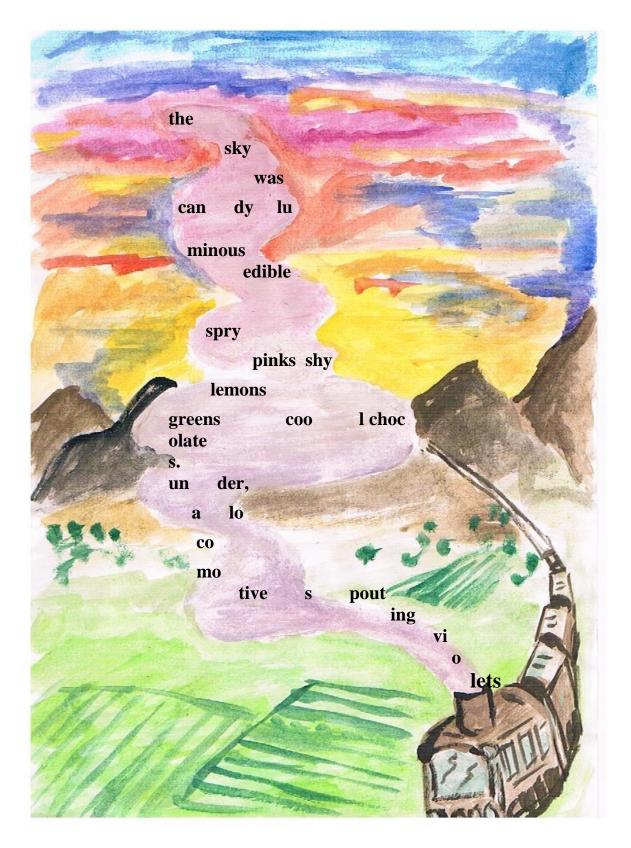


Figure 4.2: The poem $\underline{\text{the sky was}}$ by e. e. cummings

Graphological Level

***** *Text Format:*

The poem at hand is a mixture of art and poetry; the words are arranged in a form of a cloud of smoke billowing from the train mentioned near the end of the poem 'under a locomotive spouting violets'. The way the words are scattered on the picture as shown in figure 02 can be read from top to bottom as 'the sky was candy luminous edible spry pinks shy lemons greens cool chocolates. under, a locomotive spouting violate' simply because it's always a natural and logical matter to observe the smoke from above before getting any idea about it source.

Capitalization and Decapitalization

Astonishing it is to find a whole text with no capital letter; this is a clear violation of the capitalization rules. The least thing could the poet do is to capitalize the 'T' letter of the article 'the' for being the first word of the poet. However, Cummings purposely put the initial word in lower case to show how high the smoke is the sky. Indeed, no matter how big things are, they just get smaller in every distance stands between them and the naked eye. Another expected capital letter could be in the word 'under' because it is just after the full-stop (period) of the word. According to the rules of capitalization; any word coming after the period must be capitalized. Yet, Cummings again breaks this rule by not capitalizing the 'U' letter of 'under'.

***** Punctuations

To some extent Cummings exaggerates in the use of spacing among and between the following words: 'can dy', 'coo l', 'un der', 's pout', 'can dy lu', 'greens coo l choc', and 'tive s pout' this could be done for the sake to demonstrate how vast and spread the smoke is up in the sky.

The period after the 'S.' of the word 'chocolates' is the first punctuation symbol that appears. It could be the separation between the natural entities of nature such as the colored sky, the chocolate mountains, and the green lands and the man-made entities such as the locomotive and the uprising smoke that billows from it.

1) Lexical Level

This poem is a descriptive demonstration of a visual view; therefore the poet uses so many adjectives to fulfill and reach the artistic image. The adjectives used are 'luminous', 'greens', 'spry', 'shy', and 'edible'. Sometimes the words get confusing, as the read might not know the true function of the word 'pinks' as it can function as a verb, noun, or adjective. However, at this case, the word functions as a verb for having the 's' of the third person singular, the multi coloring of the sky pinks a lemon's color.

1) Semantic Level

❖ Ambiguity

As asserted earlier, the confusion of some words can lead to ambiguity. The beginning of the poem can be attractive to the readers; however, as soon as they carry on reading they get stuck in the middle as the choppiness of the lines takes all over the poem. Yet, Cummings' way of writing this poem requires the look of the bigger picture so that one can reach significance.

* Allusion

In the poem there many words which represent the beauty of nature such as 'candy', we all know that candy is colorful and brings joy to us, same thing here, the sky was candy indicates that the view was lovely and joyful to watch, 'luminous' means light, this indicates that the event happened in day light, 'chocolates' represent the existence of the mountains as they share the same color as chocolates which is the brown color, and 'greens' represents the spring season where all lands are green with grass,

* Honest Deception

There is a kind of exaggeration at the end of the poem. As a matter of fact, trains generally spout either white or black smoke, but Cummings put a color to that smoke which is 'violets' this is done, perhaps, to give the view a visual effect influenced by the multi coloring of the sky.

CONCLUSION

By reaching the final stage of this dissertation, I would like to recap now what have been explored throughout its chapters. We have made an attempt to implement the use of cryptology, as an analytic tool, in the field of stylistics. The latter, has been tackled by decrypting e. e. cummings' selected poems. The first chapter has dealt with the field of cryptology, it can be considered as an introduction to the field. Indeed, mastering the domain of cryptology requires not only knowing what cryptology is about but also possessing a heavy knowledge in formal sciences. By formal science, I mean computational science, mathematics, physics...etc. However, this is not our concern here nor does it prevent us from using cryptology as an interpretative tool to interpret literary texts. Our need of cryptology lies only on the superficial level, meaning, that what we need is exclusively the basic knowledge. True it is that one needs to be keen about algorism, equations, algebra...etc. to encrypt and decrypt a message or hide it within an image using sophisticated equipment. Yet, what a literary analyst needs from Cryptology are only the basic levels and principles. The latter, is concerned with the conceptual notion such as encryption/decryption, coding/decoding, cipher/decipher, the good and the bad guys, and symmetric key/ asymmetric key. In addition, one must also know how cryptology works, its rules, and the violation of those rules. This is a must, because once we know and understand the mechanism of how cryptology functions, it will be easier for us to know when to obey and when to break the fundamental rules. Cryptology in itself has a reversal mechanism that works against its norms. This process is called cryptanalysis, which is the process that our practical part relies on. What is ironic about the way things are handled in our research is through the use of fire to fight fire. That is to say, Mr Cummings broke every rule that has to do with poetry. Therefore, in order to decrypt his work and make it familiar to the readers; we have broken every rule that cryptology stands for.

In the second chapter we primarily focused on drawing a liaison between concrete poetry, cryptology, and stylistics. To reach an objective interpretation of literary texts, the aforementioned concepts have been defined and explained. Concrete poetry has been considered as an example by excellence of the existence of cryptology in the domain of literature. Similarly, stylistics has been seen as a more appropriate approach to the interpretation of literary texts. Indeed, what stylistics has brought to our consideration is that it provides us with an objective

and scientific interpretation of literary pieces. Therefore, equally to cryptology being a scientific discipline, we have merged the two to create a new sub-discipline as a stylistic tool to make the unfamiliar familiar and to reach an adequate significance. Style has been the focus of the stylistic study, thus, studying Cummings style is an essential element to point to, and that is what the next chapter is about.

In the third chapter an investigation has been undertook to clarify the nature of e. e. cummings way of writing and the purpose behind it. Studying Cummings works really is not a joke. Criticism from the early essays through to more recent book-length studies of him, from Iain Landles's 2008 Case for Cummings to Norman Friedman's 1996 (Re)Valuing Cummings to Jiérâi Flajésar and Zénâo Vernyik's 2007 collection Words into Pictures: E. E. Cummings' Art Across Borders. The latter, and many other works, usually involves some form of an argument that Cummings deserves more recognition than he has received. Cummings has brought a new kind of vision toward poetry, it may be too personal for him, yet it is worth studying. True it is difficult to cope with Cummings style, it is not that easy to read it and understand it either for the first time or after several attempts. However, it is not impossible to do so, thus, the role of cryptology (as our dissertation claim) could facilitate the obscurantism of Cummings' style. Springer 1985 asserted that "The purpose of Cummings' deliberate obscurantism, then, is to force the reader to take part in the poetic process." This is the situation where the Cummings reader repeatedly finds him/herself in. The process is similar to that in the poem about the grasshopper, whose riddle is only revealed after the delay of several anagrams. Cummings has brought a new kind of vision toward poetry, it may be too personal for him, yet it is worth studying. In this respect, my intention in this dissertation, is to bring a new vision or rather say approach to the study of literary texts that appear to the readers unfamiliar or out of the ordinary. The aim here can be seen in broad and narrow terms: in a broad term, it is for the sake of resurrecting a forgotten icon in the field of literature (e.e. cummings) and appreciation of his works in both painting and poetry. On the narrow term, it aims to show that the field of stylistic seems to be a more effective field of study in reaching an "objective" interpretation of a literary piece.

As asserted above, my consideration of the place of cryptology as a stylistic tool among such literary studies revealed that it is an appropriate approach to the interpretation of literary texts. Therefore, what have been tackled in the three pervious theoretical chapters is applied in the last chapter (Practical Issues). The latter, has been done by providing a cryptologic decryption to

Cummings' selected poems ygUDuh, r-p-o-p-h-e-s-s-a-g-r, and the sky was. Our decryption has been conducted by using a kind of cryptologic approach naming cryptanalysis. Cryptanalysis, so to speak, is based on the violation of the norms of cryptology. This kind of method is used only when a person is decoding a text without any previous shared key. Meaning that he is going to hack or crack the message out of the encrypted text, and our case in no exception. Our attempt in decrypting Cummings' selected poems seemed to be successful to some extent. We are using the word "extent" because the natural and normal decryption of a ciphered text is common with all kinds of other encrypted texts that are encrypted with the same method. In addition they are meant to be ciphered because they are based on a cryptologic principle. Nevertheless, it is not the case here; there is no concrete proof that indicates that Cummings really used cryptology in his writings. True, it is that some of his poems seem to be encrypted, but if it is the case, how come that we could not match our decrypted data with one of his other poems, even among the selected poems presented in this dissertation. Each poem has its own key. Here, this will leave us with two assumptions: first, Cummings' poems do not possess cryptologic characteristics. Second, each poem has its own key to be used on. Well, these are just expectations, however, the real answer needs more deep studying to the inquiry. The obscurantism of Cummings in literary writings should not be seen as a rejected literary style. It is the one thing that make him as unique as he can be. In addition, the vision of Cummings (as a modernist writer) toward old poetic symbols (love, death, irony, the self) are made fresh insofar as they are projected into the modern world. At a time when other poets see destruction, he innovatively tells us that even the modern world can accept the power of love, the potency of irony, and freedom through the manipulation of inherited forms (like the sonnet, for example). Cummings is a school in himself in that he uses these ideas in modern times in his own pioneer manner, and this is what the critic has still failed to notice. So when we say that Cummings has not escaped the fate of being read as a divergent poet (Von Abele 1955), we intend to prove that this divergence is what enables him to be utterly, and undeniably, modern. To do so, the fusion between the two scientific fields such as cryptology and stylistics facilitate cummings poetry to be more familiar, readable and understandable to the readers, as well as, it upgrades the field of interpreting literary texts to a more advantageous level.

CONCLUSION

By reaching the final stage of this thesis, I would like to conclude now by summarizing the findings of our inquiry for some of the questions to which this thesis is directed. My consideration of the place of cryptology as a stylistic tool among such literary studies revealed that is it an appropriate approach to the interpretation of literary texts. The fusion between these two scientific fields such as cryptology and stylistics upgrades the field of interpreting literary texts to a more advantageous level.

Therefore, what have been tackled in the three pervious theoretical chapters is applied in the last chapter (Practical Issues). However, what is ironic about the way things are handled in the practical part is that we used fire to fight fire. That is to say, Mr Cummings broke every rule that has to do with poetry, and in order to decrypt his work to make it familiar to the readers; we have to break every rule that cryptology has, and that by using a kind of cryptologic approach naming cryptanalysis, which is based on the violating of the norms of cryptology. This kind of method is used only when a person is decoding a text without any previous shared key, which means that he is going to hack and crack the message out of the encrypted text, and our case in no exception. Our attempt in decrypting Cummings' selected poems seemed to be successful to some extent, I am using the word "extent" because the natural and normal decryption of a ciphered text is common with all kinds of other encrypted texts that are encrypted with the same method, plus they are meant to be ciphered; because they are based on a cryptologic principle. Nevertheless, it is not the case here; there is no concrete proof that indicates that Cummings really used cryptology in his writings. True it is that some of his poems seem to be encrypted, but if it is the case, how come that we could not match our decrypted data with one of his other poems, even among the selected poems presented in this thesis; each poem has its own key. Here, this will leave us with two assumptions: first, Cummings' poems do not possess cryptologic characteristics, and second, each poem has its own key to be used. Well, these are just expectations, the real answer needs more deep studying to the inquiry.

Studying Cummings works really is not a joke, criticism from the early essays through to more recent book-length studies of him, from Iain Landles's 2008 Case for Cummings to Norman Friedman's 1996 (Re)Valuing Cummings to Jiérâi Flajésar and Zénâo Vernyik's 2007 collection Words into Pictures: E. E. Cummings' Art Across Borders, almost always involves some form an argument that Cummings deserves more recognition than he has received. Cummings has brought a new kind of vision toward poetry, it may be too personal

for him, yet it is worth studying. In this respect, the hope of this thesis, is to bring a new vision or rather say approach to the study of literary texts that appear to the readers unfamiliar or out of the ordinary. The aim here can be seen in broad and narrow terms: in a broad term is for the sake of resurrection of a forgotten icon in the field of literature (E.E. Cummings) and appreciation of his works in both art and poetry. On the narrow term, it aims to show that the field of stylistic seems to be a more effective field of study in reaching an "objective" interpretation of a literary piece, as well as, it is opened to other scientific fields that can contribute to the same purpose relying on a systematic and scientific method.

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Questionnaire

In the light of attempting an investigation concerning unveiling the unsaid we prepared this questionnaire to sustain our inquiry which is composed of multiple figures. It would be of a great help to provide us with credible comments and answers.

Figure One:

```
r-p-o-p-h-e-s-s-a-g-r
who

a)s w(e loo)k
upnowgath
PPEGORHRASS
eringint(o-
aThe):l
eA
!p:

S
a
(r
rIvInG
.gRrEaPsPhOs)
to
rea(be)rran(com)gi(e)ngly
,grasshopper;

What can you say about figure one?
```

Figure Two:

```
ydoan
yunnuhstan

ydoan o
yunnuhstan dem
yguduh ged

yunnuhstan dem doidee
yguduh ged riduh
ydoan o nudn

LISN bud LISN

dem
gud
am

lidl yelluh bas
tuds weer goin
```

duhSIVILEYEzum

1.	W	What does figure two show?				
	a.	Diagram	b. Poem	c. Paintin	g d. Other	
2.	In	n which language do you think figure two is written?				
	a.	Latin	b. Turkish	c. Indian	d. English	e. Other
3.	Can you read figure two?					
	a.	Yes		No]	
	b.	If yes, w	hat does it spea	ık about?		