

Lecture 2.

The theory of Information as one of the cornerstones of Decoding Stylistics

- 2.1. The Theory of Information as one of the cornerstones of Decoding Stylistics.
- 2.2. The Process of Communication.
- 2.3. Basic Terms.
- 2.4. Adaptation of Shannon's Model

«Стилистика декодирования — раздел стилистики, который рассматривает способы толкования художественного текста для достижения наиболее полного и глубокого понимания его, исходя из структуры этого текста и взаимоотношений составляющих его элементов.

Под декодированием понимается восстановление сообщения на основе знания кодовых комбинаций. Кодом называется такой набор значимых единиц и правил их соединения, или фиксированных ограничений для их соединений, который позволяет передавать некоторые сообщения».

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Теоретические основы стилистики декодирования

«Термин «стилистика декодирования» удобен потому, что показывает на связь этого раздела стилистики с теорией информации и на тот участок процесса общения, который является его предметом, а именно на участок «текст — читатель». Использование этого термина не означает, что у стилистики декодирования нет связей с другими разделами стилистики, поэтики, теории и истории литературы. Напротив, эти связи существуют и играют основную роль в установлении кодов. Так, например, вся система известных традиционной стилистике тропов и фигур может рассматриваться либо как набор кодовых комбинаций, либо как отдельный самостоятельный код».

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Теоретические основы стилистики декодирования

2.1. The Theory of Information as one of the cornerstones of Decoding Stylistics

The use of the approaches from Information Theory, which is an exact science, is another example of inter-disciplinary connections in contemporary linguistics. Information Theory as such is a branch of applied mathematics and electrical engineering involving the quantification of information. Information Theory was developed by Claude E. Shannon to find fundamental limits on signal processing operations such as compressing data and on reliably storing and communicating data. Since its inception it has broadened to find applications in many other areas, including statistical inference, natural language processing, cryptography generally, networks other than communication networks — as in neurobiology, the evolution and function of molecular codes, model selection in ecology, thermal physics, quantum computing, plagiarism detection and other forms of data analysis.

2.1. The Theory of Information as one of the cornerstones of Decoding Stylistics

Applications of fundamental topics of Information Theory include lossless data compression (e.g. ZIP files), lossy data compression (e.g. MP3s and JPGs), and channel coding (e.g. for DSL lines). The field is at the intersection of mathematics, statistics, computer science, physics, neurobiology, and electrical engineering. Its impact has been crucial to the success of the Voyager missions to deep space, the invention of the compact disc, the feasibility of mobile phones, the development of the Internet, the study of linguistics and of human perception, the understanding of black holes, and numerous other fields. Important sub-fields of Information Theory are source coding, channel coding, algorithmic complexity theory, algorithmic information theory, information-theoretic security, and measures of information.

2.2. The Process of Communication

The process of communication is studied not only in Linguistics but also in Semiotics, in the Theory of Information, and many other disciplines. Information Theory is actually a branch of mathematical physics that has emerged to meet the demands of modern engineering but very soon proved to be of very general usefulness. Its principles, ideas and notions are applied in many very different fields. It is not only the basis of cybernetics but became indispensable in biology and semiotics, economics and warfare, medical sciences, psychology and last but not least linguistics.

It is necessary to emphasize and remember that Decoding Stylistics is interested not in the engineering possibilities of Information Theory, but in its philosophical and heuristic possibilities and does not cast out intuition, i.e. direct perception of art.

2.2. The Process of Communication

The first scholars to mention the importance of Information Theory for linguistics were not linguists but mathematicians – those who created Information Theory. It was Claude Shannon and Warren Weaver in their classical book "*The Mathematic Theory of Communication*", Urbana: University of Illinois Press, 1949, the work focused on the problem of how best to encode the information a sender wants to transmit, who pointed out that the analysis of communication will pave the way for a theory of meaning. In this fundamental work they used tools in probability theory, developed by Norbert Wiener, which were in their nascent stages of being applied to communication theory at that time.

2.2. The Process of Communication

Poetics and linguistics



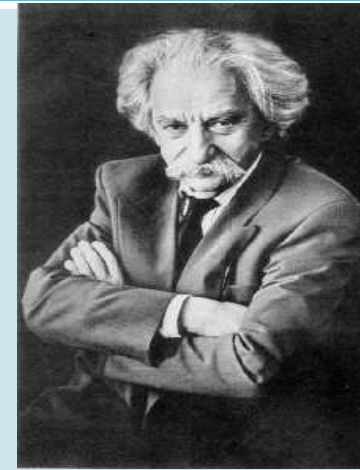
A.N. Kolmogorov



I.R. Galperin



I.V. Arnold



J.M. Lotman



R. Jakobson

G. Leech, V.V. Ivanov, I. Levy, V.A. Zaretsky, A.M. Kondratov, J.A. Filippev, J. Darkshire

Aesthetics

A. Moles M. Bruce

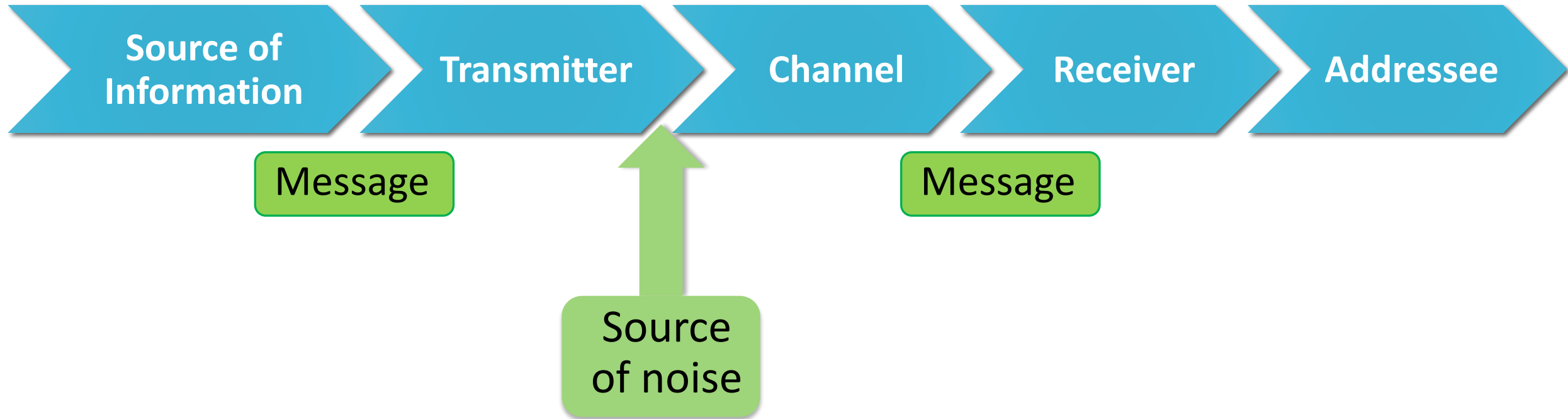
2.2. The Process of Communication

Information Theory makes use of such terms as information, message, code, communication, channel, encode, decode, feedback, redundancy and some others that are important for DS.

Their importance and value for us depend on the possibility they give to see common features in apparently different phenomena, make new powerful generalizations and formulate laws common to different branches of knowledge in a unified system of terms and notions. This permits very different and distant branches of knowledge to cooperate in development. As an example of this cooperation one might consider the scheme of communication offered by Claude Shannon and some of the many adaptations of this scheme by linguists.

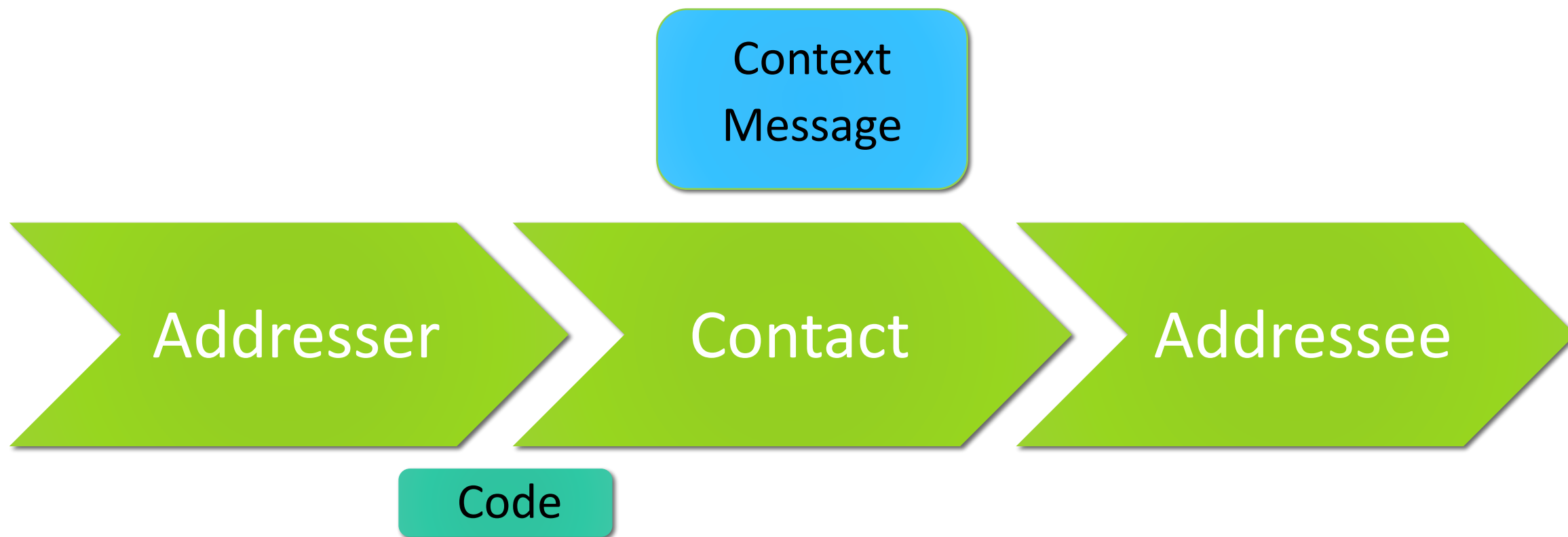
2.2. The Process of Communication

The Scheme of Communication Offered by Claude Shannon



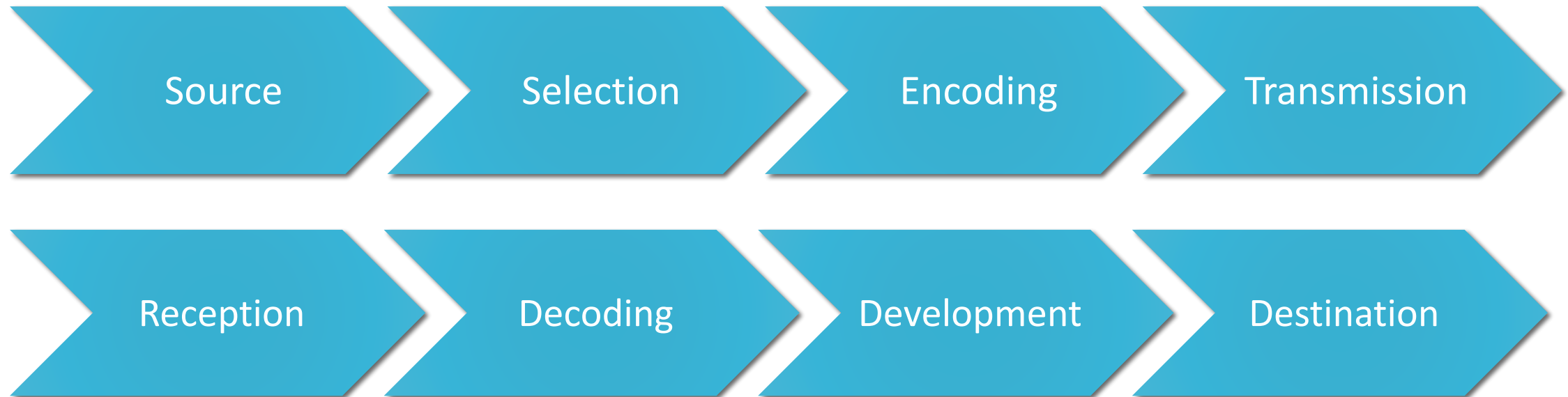
2.2. The Process of Communication

Roman Jakobson adapted the scheme of communication for linguistics in the following form:



2.2. The Process of Communication

Ivor Richards gave a more elaborate variant, considering not the participants or means of communication but the process itself:



2.2. The Process of Communication

Encoded content is the actual meaning attached to certain expressions, arrived at through investigation of definitions and making of literal interpretations. Non-encoded content are those meanings that are understood beyond an analysis of the words themselves, i.e., by looking at the context of speaking, tone of voice, and so on. Truth-conditional content are whatever conditions make an expression true or false. Non-truth-conditional content are whatever conditions that do not affect the truth or falsity of an expression.

2.2. The Process of Communication

For H.P. Grice, these distinctions can explain at least three different possible varieties of expression:

1. **Conventional Implicature** – when an expression has encoded content, but doesn't necessarily have any truth-conditions;
2. **Conversational Implicature** – when an expression does not have encoded content, but does have truth-conditions (for example, in use of irony);
3. **Utterances** - when an expression has both encoded content and truth-conditions

2.3. Basic Terms

As developed by Cl. Shannon himself and others this theory became of fundamental importance in all disciplines involving problems of communication, language and meaning. Cl. Shannon gave a new interpretation to such notions as "information" and "message". In the above scheme:

- **the information source** is where the message to be sent is selected from an array of possible messages;
- **the transmitter** encodes the message into a signal;
- the signal is sent through a communication **channel**;
- the message is received and decoded by a **receiver**;
- there is a destination, i.e. **addressee**, analogous to the source which makes use of the signal;
- undesirable but inevitable variations in the signal due to various external causes affecting transmission are called **noise**.

2.3. Basic Terms

In I.V. Arnold's opinion the very general concept of information and the linguistic meaning should not be confused.

The non-semantic information is expressed mathematically in terms of probability (p) and entropy (x). Or, in other words, it is determined by the probability of the event. But we are interested in the essence of this relationship from the point of view of philosophy, of the theory of reader's response.

The amount of information in a piece of language is related to the predictability of one linguistic choice from another. Formulated in the terms of the theory of reader's response, information is the trace left on one object of reality by the influence of another object of reality. Among the many different choices the writer has to make in the stage of selection, note the selection of genre suitable for this or that subject-matter and idea. He has to decide when he encodes it, whether he does it as a novelist, a poet, a dramatist with further subdivisions of lyrical, satirical or comical approach and further still: an elegy, a ballad, a sonnet, etc. These organize and connect the message and may be regarded as very general code systems, imposing some choice of elements, and some further restrictions.

Художественный текст можно рассматривать с точки зрения его генезиса, т.е. творческого метода писателя. Лексический состав произведений, характер ассоциативных связей при создании тропов, отношение авторской речи и речи персонажей, способ реализации образа автора — все это рассматривается при таком подходе с целью определения индивидуальных особенностей данного автора¹. Стилистика декодирования рассматривает текст, как его видит читатель.

Другое важное для нас разграничение при подходе к художественному тексту — подход исследователя и подход вдумчивого высокообразованного читателя. Исследователь-литературовед добивается глубины проникновения в текст, используя не только то, что содержится в самом тексте, но и специально привлекая широкий дополнительный контекст культуры. Произведение объясняют, пользуясь сведениями о его эпохе и биографии писателя. Поскольку всякое художественное произведение уходит корнями в прошлое, исследователь (не всегда в действительности, но, во всяком случае, в идеале) не замыкается только на условиях ближнего времени. Установив внетекстовые факторы, он сопоставляет их с данными текста. Если далее исследователь в качестве лектора или докладчика передает результаты своего анализа читателя, схема связи получается: автор — текст — интерпретатор — читатель.

Иначе подходит к тексту читатель, если он не является профессиональным литературоведом. Он ориентируется в самом тексте, опираясь на свое знание языка и на структуру самого текста, собственный читательский опыт используется строго применительно к тому, что обнаруживается в тексте. Схема связи: автор — текст — читатель. Задача стилистики, ориентированной на интересы читателя, состоит в том, чтобы в процессе декодирования происходило существенное совершенствование в овладении самими кодами.

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Теоретические основы стилистики декодирования***

2.3. Basic Terms.

The next step is the choice of images. As we read the elements of the text and their connections are gradually perceived, feedback plays a most important role because our response continuously changes, adapting to succeeding events going on as a process of retrospective patterning combined with some expectation for what is coming. The conclusion of a text is the point when the total pattern is revealed. As we read the poem our expectations or the probable further development depend on the interaction of what we read in the text and our thesaurus that is the contents of our memory, and these expectations are constantly readjusted in feedback.

Помимо языка художественная информация в литературе не передается. В ее передаче участвуют все уровни языка. Более того, даже текстовое строение, сюжетная и композиционная сторона сигнализируются языковыми средствами.

Следует также обратить внимание на то, что изучение литературного произведения как сложно организованной структуры взаимосвязанных элементов требует выяснения соотношений элементов разных уровней. Эстетическая ценность текста зависит от того выбора, который автор сделал из имеющегося набора возможностей. Эти возможности, ограничения и нарушения касаются прежде всего естественного языка, на котором написан текст, и всех его уровней, а именно это и составляет предмет «квалифицированного интереса» лингвиста.

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2.4. Adaptation of Shannon's Model

This model permits Decoding Stylistics to give a correct representation, reflecting the active role of literature in history, and the feedback between art and society. This shows that as given by the Theory of Information the scheme is general and comprehensive. Information Theory does not claim that it can substitute any other particular science or branch of knowledge. Its merit lies in creating a common language that facilitates the contacts between languages; showing some basic universal laws and relationships, it creates a basis for a general approach and permits each science comparing its results with those of the other sciences to find the specific and peculiar features in a clearer and more rigorous way. Thus the general notion of a code that presupposes a system of signs of any nature is particularized in many different branches of knowledge according to their object. For example, biologists study the genetic code.

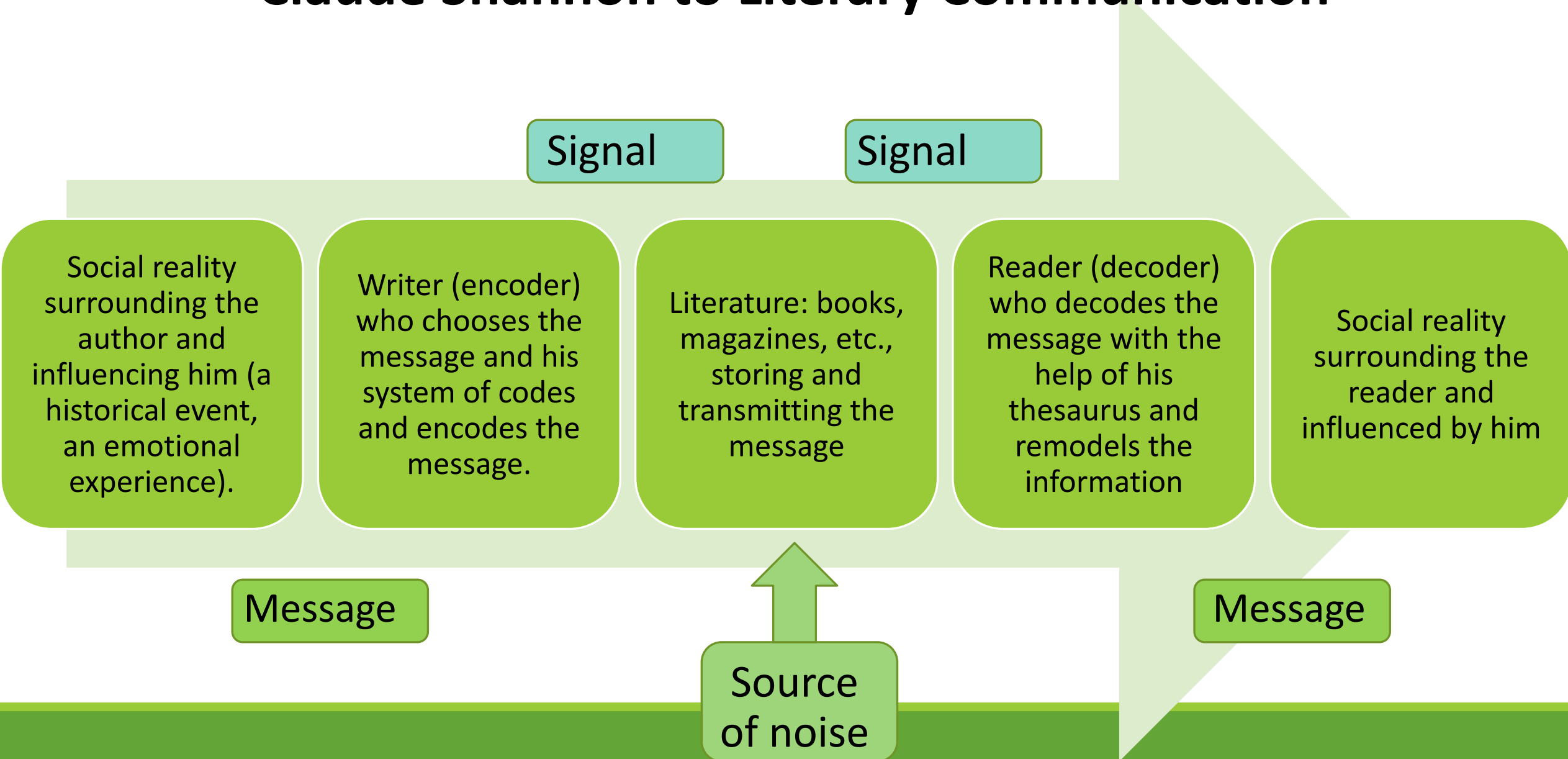
2.4. Adaptation of Shannon's Model

To be operative the verbal message requires:

- 1) a code fully or at least partially common to the addresser and the addressee, i.e. to the encoder and the decoder of the message;
- 2) a context that the addressee can recognize, and that is either verbal or capable of being verbalized;
- 3) a contact i.e. a physical channel and psychological connection enabling both participants to enter and stay in communication.

It must be emphasized that the definition of a code given above does not presuppose the unchangeability of the system. On the contrary the system of a code may develop adapting itself to the conditions under which it is used. With a literary text even if the poet and his reader speak the same language and are contemporaries there is always some difference in the codes they use, moreover a poet always introduces some innovations by which he mobilizes the reader's attention, his verbal code changes in the interaction with the message.

The Adaptation of the Scheme of Communication Offered by Claude Shannon to Literary Communication



2.4. Adaptation of Shannon's Model

Source of Information	The process of communication starts in this case when a writer or a poet who receives a vast stream of information from the surrounding reality, selects in this mass of information something that he wants to impart to others. This stage is a complicated creative process studied in the history of literature.
Message	It results in compressing and encoding the message , i.e. choosing the necessary items from a system of codes. The codes involved are studied by linguistics, poetics, semiotics, etc.
Code	A code is a set of signs and rules in which they are arranged and used for transmitting messages through some specific channel (i.e. suitable for some specific channel).
Sign	The term sign can be used to mean a discrete physical element that carries information, i.e. some material that can be distinguished by the senses and stands for something else. Thus, in each letter of the alphabet we recognize a distinct shape different from that of any other letter, and standing for some sound. As elements of a code simple signs combine into more complicated codograms, and these, in their turn, form codograms of a higher level. Finally, a complete message results. In language all units: sounds, morphemes, words, sentences etc. are defined by placing them into larger units of higher levels. The theory of signs is studied in semiotics.
Signal	The term " signal " should be distinguished from the term "sign". A text is an arrangement of static material signs situated on a page, framed by a margin and arranged typographically in a certain way. A signal is a dynamic nerve impulse transmitting the message to the reader's mind. The transmission is simultaneously an interpretation directed by the signs of the text serving as directions.

Message	A message is the sum total of the properties of the source reflected and transmitted to the addressee or in other words it is the state of one system as rendered by the elements of another system.
Encoding	By encoding or coding we mean the operation of identification of symbols and groups of symbols of one kind with symbols and groups of symbols of a different kind.
Decoding	Decoding by the receiver is the reverse operation – reconstruction of the message by knowing code combinations.
Communication channel	A communication channel serves as a medium of contact. The transmitter encodes the message and transmits it in signals suitable for the channel serving as medium of contact. In our case we regard literature as an analogy of the channel. At the stage of transmission the signal is mixed with inevitable noise, i.e. with various disturbances in the communication system that interfere with the reception of information.
Source of noise	The source of noise may be different. There may be for example changes that occur in one of the codes used during the time that passes between the moments of encoding and decoding. Changes may affect language or manners. Manners that were considered quite polite in the XVIth century may seem revolting in the XXth. I.A. Richards thinks the codes that rule wit peculiarly variable. Jokes are apt to become tasteless or lose their point with the passage of time.

2.4. Adaptation of Shannon's Model

In the original scheme as used in engineering, the source of information and the addressee may be human beings, while transmitter and receiver are technical devices. In our case it seems more appropriate to take transmitter and receiver as human, i.e. writer and reader respectively, and consider the end items, source and addressee, to be the social reality surrounding them.

The history of literature concentrates its attention on the transmitting end, i.e. it studies what and who influenced the writer. In *Decoding Stylistics and Text Interpretation* the attention is concentrated on the receiving end of the process of communication, i.e. on decoding the message, hence the term “Decoding Stylistics”.

This last scheme adaptation brings Decoding Stylistics in correspondence with our view of literature as a social phenomenon. It is also an essentially cybernetic view of literature because it shows that literature controls the reader's perception of reality and his activity in real life.

Если рассматривать творчество как процесс передачи информации, то художественный текст является сообщением, в котором эта информация закодирована. Воздействие художественной литературы на читателя можно уподобить кибернетическим процессам, потому что кибернетика занимается изучением управляющих систем, а литература может рассматриваться как управляющая система, которая через свою образно-познавательную функцию управляет восприятием читателя, преобразуя его как личность и формируя общественное сознание.

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Теоретические основы стилистики декодирования*



On Another's Sorrow

*Can I see another's woe,
And not be in sorrow too?*

*Can I see another's grief,
And not seek for kind relief?*

*Can I see a falling tear,
And not feel my sorrows share?*

*Can a father see his child,
Weep, nor be with sorrow fill'd?*

*Can a mother sit and hear,
An infant groan, an infant fear –*

No no never can it be

Never never can it be

/William Blake/

2.4. Adaptation of Shannon's Model

Thus Decoding Stylistics concentrates on the decoding and development processes. Literary Stylistics on the contrary, is primarily interested in the first stage, i.e. in how the source of information influences the encoder. Every message is sent by someone, sometime, somewhere to someone else. It is sent under the influence of a particular situation, external or psychological as a response to it.

Specialists in Literary Stylistics look for what is peculiar in the codes of each writer as compared with his predecessors and contemporaries.

Decoding Stylistics considers a text as a source of impressions for the reader affecting his mental make-up and personality. Traditional Stylistics is particularly interested in stylistic devices, above everything else concentrates itself on the code. It is worth remarking that all this does not mean that either of the trends disregards the other stages completely, it only characterizes the bias chosen.