

INTERPRETATION OF LITERARY PROCESS – A SYSTEMIC APPROACH

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The present paper is an attempt to apply some general definitions and assumptions of the cybernetic system theory to the field of literary studies, particularly to the important problem of author-text-reader relationship. The system theory is formally simple and clear, and has already been successfully applied in natural, technical, and social sciences. The interdisciplinary language and methods of the system theory enable it to be used in different branches of science that have hitherto remained separate both in respect of the object of study and the methods used. Whether or not the system theory can be applied to literary studies is an open question, to which the present paper is intended to provide a possible answer.

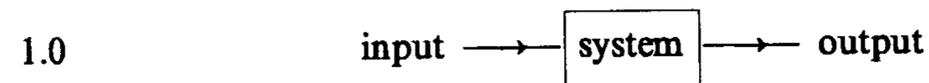
The general system theory was formulated in 1930's in the field of natural sciences, and its great exponent had for many decades later been a Vienna biologist Ludwig von Bertalanffy.¹ For Bertalanffy the system theory was a new scientific paradigm which, contrary to the analytical and mechanistic paradigm of positivistic science, treats reality as an *organized whole*. The systemic approach begins with an assumption that reality consists of a hierarchy of organized wholes, and it studies both the internal organization of these wholes and their mutual relationships.² The purpose of the system theory is to formulate logical and mathematical laws applying to systems in general and to concrete systems investigated by different sciences. The system theory aims at integrating various disciplines with regard to terminology and methods, and in particular at introducing logical-mathematical apparatus to non-exact sciences, social, historical, and arts. The far-reaching goal of the system theory is to achieve a methodological unity of science, so that structural similarities so often found in separate disciplines can be described and explained with the use of a uniform set of terminological conventions and procedures.

¹ Ludwig von Bertalanffy, *Ogólna teoria systemów* [General System Theory], Warszawa: PWN 1984.

² *Ibid.*, pp. 24-38.

What follows is a presentation of some basic assumptions of the system theory as formulated by a Polish cybernetician Marian Mazur.³ Mazur's introductory systemic formulae will then be applied to the problem of author-text-reader relationships.

Following the classical definition by von Bertalanffy⁴ Mazur treats *system* as a *set of interrelated elements*. The relations between the elements of the system constitute the *structure* of the system.⁵ A system may interact with the environment:

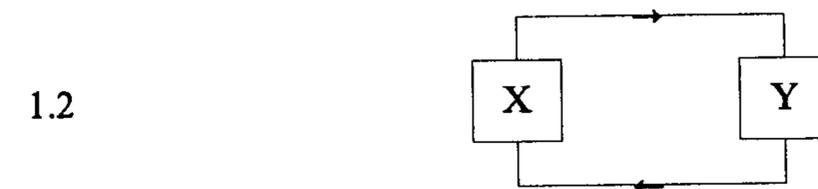


or with another system (or systems). In the latter case we talk about coupled systems, and coupling may be of two kinds:

1. direct coupling, when one system acts upon the other:



2. feedback, or back coupling, when two systems interact with one another:



Further, Mazur introduces the following terminological conventions:

- stimulus (S) is an input interaction of a system;
- reaction (R) is an output interaction of a system;
- reactivity (r) is a ratio of the reaction of a system to the received stimulus:



A simple transformation of this formula gives us the following:

1.4
$$R = r \cdot S$$

which is a formula for the *reaction* of a system. It tells us that the reaction of a system has *two causes*, of which one comes from *within* the system (its reactivity - r), while the other comes from *outside* the system (the provided

³ Marian Mazur, *Cybernetyka i charakter* [Cybernetics and character], Warszawa: PIW, 1976.

⁴ von Bertalanffy, op. cit., pp. 63, 68.

⁵ M. Mazur, op. cit., pp. 44 ff, 63-98.

stimulus - S). The consequences of this theorem are very far-reaching, also for literary studies. This means for example that an analysis of a literary work (reaction - R) cannot concentrate exclusively on the author's talent and the unique way of handling the literary material (reactivity - r), nor exclusively on various sorts of literary and cultural sources (stimuli - S) used by the author. Neither the literary talent alone nor the sole accumulation of sources and literary material will produce a literary work. As is seen in the formula, reaction is a *product* of the system's reactivity and the provided stimulus, and not a simple sum. This means that there is no literary work ($R=0$) if at least one of the factors equals zero. In practice this means that a real literary talent but without hard work, education, wide reading, knowledge of literary conventions and artistic devices will not in itself produce a literary masterpiece. This also explains cases of "wasted talents", that is, gifted people who due to their low motivation or unfavourable circumstances could not develop their talents by training and education, and eventually lost them, leaving no artistic creations. Mazur's formula also explains why untalented people ($r=0$) only by education, study of literary sources, and by diligence cannot produce masterpieces either, however hard they might try.

What is more, the formula for the reaction of a system tells us that reaction will remain the same if one factor is multiplied, and the other divided, by the same value (k):

1.5
$$R = r \cdot S = rk \cdot S/k$$

In literary practice this means that a lesser talent can be recompensated by thorough reading, study and hard work, and the same result can be achieved with less work and study but with greater talent. Of course, the best results are achieved with great talents and hard work, and the most outstanding figures of the history of literature are people of this kind.

Let us now return to Mazur's diagram of coupled systems (1.2). In empirical reality we almost exclusively have to do with feed-back interactions, and so it is with the problem of author-text-reader relationships, which is crucial in a literary process. The three main systems involved are now defined in the following way:

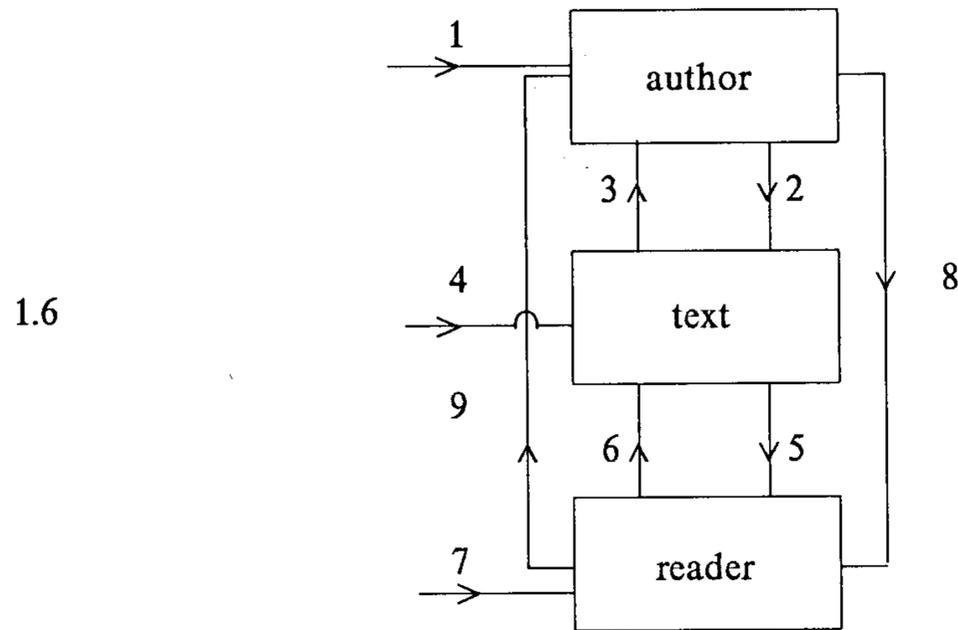
- author - a system encoding information in a text;
- text - a system of linguistic signs (words, sentences etc.) containing the encoded information;
- reader - a system decoding information from a text.

Lack of space does not allow us to define and explain in terms of the system theory the notion of information. Suffice it to say that the systemic qualitative theory of information by Marian Mazur⁶ provides ample tools to analyze the

⁶ Ibid., pp. 117-146; see also by the same author, *Jakościowa teoria informacji* [The qualitative theory of information], Warszawa 1970.

complex problem of information within the system theory. In the present paper, however, we will have to rely on the audience's received, intuitive knowledge of what information is.

Now all the interactions occurring between the three differentiated systems, and between the systems and the environment, have been presented in a block diagram (1.6). The diagram is very clear and simple, and can be easily grasped as one simultaneous whole. A good theory is one that explains a maximum number of problems with a minimum number of simple initial assumptions. The system theory fulfills this requirement.



The arrows on the diagram show the directions of interactions between the systems themselves, and between the systems and the environment. As is seen, the number of possible interactions is nine, and no other types of interactions are involved in the coupled systems of author, text, and reader.

The numbers of interactions as shown on the diagram point to the following types of problems which now have to be considered:

1. *the influence of the environment upon the author:*

This comprises factors such as the author's education, cultural background, reading, knowledge of literary traditions and conventions, and also such environmental circumstances as the author's social and economic status, good or bad working conditions, access to other literary works or people (fellow writers), the author's personal life etc. This kind of problems is of interest for the writer's biographers and literary historians seeking answers to literary problems in the author's life, external inspirations and stimuli, the cultural milieu etc. As has already been remarked, extremely unfavourable external conditions can remarkably hinder the literary process, or even block it altogether. God only knows how many talents were lost in human history

because they could not develop properly. On the other hand great talent and strong motivation can sometimes overcome bad conditions, and historians of literature would quote numerous cases of such authors.

2. *the influence of the author upon the text:*

This sphere of problems has to do with the very process of literary creation and includes such factors as the author's talent, his choice of themes, genres and literary conventions, his handling of those themes and conventions, the kind of language and artistic devices used to express particular subjects; in a word, all conscious intellectual and artistic work put by the author into his text. The choice of literary conventions depends on the message the author wants to convey to the reader, and on his expectations and presuppositions of a certain kind of literary competence in the reader.

3. *the influence of the text upon the author:*

As is well known by all those who write creatively, i.e. by writers and poets proper and by writing scholars and journalists, in the course of writing the text exerts a feedback reaction upon its author so that the whole process is a constant mutual interaction between what the author wants to write and what he has already written. It is no revelation to say that at every stage the text is a result of its author's creativity, but the text in turn influences the author by making him pause, look back at his writing, correct and revise it, make additions or deletions, write new drafts and versions, accept or reject his text altogether. A close scrutiny of the author's manuscript can often reveal this painful and exhausting creative process, which an average reader of a printed book is rarely aware of. A philological study of manuscripts and related documents can show what the author's attitude towards his work was, whether he was satisfied with it or not, was the creative process long or short, easy or difficult etc.

4. *the influence of the environment upon the text:*

This kind of influence comprises rather technical but often important problems of the preservation of a literary work, particularly manuscripts. External conditions can sometimes be crucial for the text when, for instance, due to unfavourable circumstances a literary work is lost, damaged or stolen, or when the original manuscript or a unique printing is shattered and partly illegible, to the extent of diminishing the content of the text. Rough treatment, torn or stained pages, faded ink etc. belong to a variety of handicaps and obstacles that a philologist is often confronted with in his work. Not infrequently a lost or unknown text is accidentally discovered after a long time from the moment it was written. It may happen that such an environmental factor can exert a marked influence upon the literary history of a given area.

The task of a literary scholar in respect of these external conditions is to provide the reader with a fully and optimally edited version of a given text, as close as possible to the original.

5. the influence of the text upon the reader:

Just as writing may be defined as a process of encoding information in the text, that is, a system of linguistic signs representing a written form of language, so reading is a process of decoding information contained in the text. This has to do with a complex problem of the reader's literary competence, that is, a set of rules applied by the reader in the course of reading and enabling him to understand a literary text.⁷ The extent to which the reader can understand the meaning of a text depends on the degree in which both the reader's and the author's literary competences overlap. The problem of proper understanding and interpretation of the text is crucial in literary studies and deserves a separate analysis in terms of the system theory. As has been said earlier, the systemic qualitative information theory formulated by Marian Mazur is the main theoretical frame of reference here.⁸

6. the influence of the reader upon the text:

The reader's immediate reaction to the literary text can be expressed in manifold ways. It is quite common, for instance, to write remarks, comments, and glosses on the margins of a book. In the Middle Ages the scribes, who were also readers, had a habit of inserting their own comments and corrections in between the lines in manuscripts, and then transcribed them in this modified form. A branch of philology called paleography of manuscripts studies these scribal alterations in related texts. In more modern times it is the task of an editor, who is sometimes the first reader, to correct, revise, and suggest textual changes to the author. Censorship is also a peculiar way of reacting to the text. The role of a literary critic in turn is to write another text in response to the reviewed literary work. Children sometimes interact with their books in a very rough manner, or at least make their own additions with the use of pencil. There are special children's books which imply active participation from the children by leaving space for drawings or paintings. An adult reader's interaction with a book is also the very fact of buying or borrowing it, if the book is popular and in vogue. A book may be kept at home or presented to somebody else. It may be one's favourite book, taken on holidays and read over and over again. We all have such books that are our favourite reading for years. And conversely, if a book is not popular, it doesn't sell well, it is not

⁷ Wanda Rulewicz, "Intertextuality, Competence, Reader", in: *Kwartalnik Neofilologiczny*, XXXIV, 2/1987, pp. 229-241.

⁸ See note 6.

talked about, and is eventually forgotten. Once acquired, it may be read partially, or not at all, it may be left on a shelf untouched for years or simply thrown away. In extreme cases some readers' hostile reaction to a text can manifest itself in official bans, confiscations, or sometimes in spectacular burnings in public places. History knows such cases.

7. the influence of the environment upon the reader:

The reader-text interaction can be modified by external circumstances in a number of ways. First of all, there may be problems in getting hold of a book if the circulation is too small, if the book is rare and expensive, or is unattainable because of some other reasons. The reader in turn can be deprived of conditions necessary for his reading: he may not have time due to overwork or life problems, he may not have a quiet place to read etc. In order to minimize these environmental obstacles public reading rooms have been set up as places of silent, undisturbed reading giving the reader maximum physical and mental comfort. People for whom reading is part of their profession also have, or should have, comfortable studies cut off from external disturbing stimuli. No one can deny that these environmental factors do have an impact on the author-text-reader relationships, but it is also true that the reader's strong motivation can overcome the external obstacles and the process of reading will not be hindered. There are actual cases of people reading books, sometimes forbidden ones, despite exceptionally unfavourable or dangerous circumstances. It should also be mentioned that the very ability to read is a result of the special kind of influence of the environment upon the reader, namely education.

8. the influence of the author upon the reader:

This interaction bypasses the mediacy of the text and concerns cases of direct influence of the author upon the reader. This often happens when both the author and his reader know each other personally, for example within the family, as friends, or on a more formal basis as author and editor. As a result of this direct confrontation the reader can obtain some extra knowledge about the author and his work, not included in the text. This explains why literary critics value so much personal contacts with writers, or at least with other people (the writer's relatives or friends) who can say something more about the author, his personal life and work. Published interviews with writers and memoirs also serve this purpose. Nor is it necessary to stress the importance of public meetings between authors and their readers, which give the latter an opportunity to meet the writer personally, see what kind of person he is, what his opinions on certain issues are etc. These factors undoubtedly influence the reading process, and anyone who met an author personally knows well how different later the reception of his work is. Of course all this does not apply to

authors and readers living in different historical periods, in which case the only source of information about the author is his text and sometimes scraps of biographical knowledge contained in other sources.

9 the influence of the reader upon the author:

This is the other side of the above mentioned problem and if the author wants to shape and modify his text on the basis of his readers' reaction he has to take into account the readers' expectations and wishes, their likes and dislikes. This of course does not mean that the author is obliged to flatter his audience and meet all their aesthetic and intellectual demands (though this is also sometimes the case), but he must have in mind an "intended reader" with his literary and cultural competence. Practical ways of receiving comments and opinions about the author's work are his direct contacts or correspondence with his readers and critics, reading of critical reviews, popularity polls, statistics of readership etc. A proper stimulus from the readers (or lack of it) can sometimes be decisive for the literary process, either in a positive or negative sense. Normally, however, the influence of the reader upon the author functions as a modifier and can have an impact on the next texts. But it should be stressed all the time that every author is, or should be, intellectually and artistically free, and can, but does not have to, take into account his readers' opinions.

The main methodological advantages of the presented block diagram can be described as follows:

The number of interactions occurring between the three distinguished systems is complete, that is, given the initial assumptions no other types of interactions occur between the author, text, and reader. This means that any concrete analysis of a particular literary case must take into account problems within the range indicated by the diagram. What is more, the diagram treats the author-text-reader relationships as an organized *whole* consisting of a given number of systems and interactions between these systems. This means that a full, complete, and adequate description of the literary process has to consider *all* the systems and interactions involved, and if in a given study stress is laid on a few, or only one, of all systems and interactions, this limited perspective should always be borne in mind. For the complexity of a literary process as presented on the diagram cannot be reduced to any of its constituent systems or interactions.

It should also be mentioned that if a given system or type of interaction is chosen as the object of investigation, the systemic formula to the reaction of a system (1.4) can be further developed and transformed to receive detailed theorems describing the behaviour of a particular system. This means that the systemic approach can be applied not only to general but also to particular

problems. But the direction of procedure in the system theory is from general to detailed problems; in other words, the system theory is a deductive one.

It is hoped that the above introductory remarks concerning the application of the system theory to literary studies will be followed by further attempts at using the systemic procedures in solving particular literary problems, especially those connected with interpretation of literary works. And possibly one day the interdisciplinary formal language and methods of the system theory will help to bring better mutual understanding within the Tower of Babel of modern literary theory.