Abstract. Systems theory is a versatile theory applicable to all disciplines, from mathematical to physical and from psychological to human sciences, responding to the needs of postmodern scholarly research. In order to maintain their system-environment differentiation, autopoietic (i.e. self-reproducing) systems need to go through courses of evolution. Evolution of a system implies its increased complexity, hence the differentiation of subsystems within its internal environment. According to social systems theory, Literature or Verbal Art is a subsystem of Art, which is in turn one of the five major social subsystems, the other four being Religion, Polity, Economy and Science. Literature has its own respective subsystems or genres, namely Epic, Drama, Lyric, Novel and Screenplay. One way of analyzing subsystems of art, which makes way for their critical analysis, is the study of their four system features, namely Structure, Function, Process and Purpose. It is possible to develop methods of literary criticism and adaptation by analyzing the abovementioned features in both the original and the target literary genres and/or modes.

Keywords: Literary adaptation, Literature as a social system, Systems theory

1. Introduction

In the 21st century, narrowed-down disciplines such as Literary Studies, Sociology, etc simply do not suffice. One of the disciplines which crave for a sound analysis methodology is literature. We need a more all-encompassing literary theory which can serve the interdisciplinary nature of contemporary research as well as enhancing both theoretical study and creative practices such as literary adaptation. “Anyone who has ever experienced an adaptation (and who hasn’t?) has a theory of adaptation, conscious or not” [1]. But few (if any) of these adaptation theories seem to have been developed within firm theoretical frameworks to make them applicable to critical adaptation procedures. I hypothesize that systems theory, due to its wide scope of validity, can provide the indispensable methodological tool to accomplish contemporary needs of literary criticism and adaptation.

2. Systems Theory: Towards a New Theory of Literature

2.1. Basic Concepts

Seeds of systems theory were sowed during the first half of the 20th century with a radical break from the tradition of modern scientific thought, which was in turn moored to the posts of “Newtonian atomism and Cartesian reductionism” [2]. According to its pioneers, systems theory aimed at reviving the Aristotelian notion that ‘the whole is always more than the sum of its parts’, which was neglected by the majority of scientific trends up to late 19th century, causing them to almost come to a halt.

A system has four necessary conditions: “it contains two or more elements with specific properties; it contains relations connecting the elements of the system with each other; it is embedded in an environment containing interrelated elements; and the boundaries between the system and its environment are determined by system elements and relations, and are sufficiently sharp and permanent to consider the system as an entity” [2]. The term ‘element’ may imply ‘the basic building units of the system’ (leading to a theory of “system complexity”) or ‘the subsystems it comprises’ (which ends up in a theory of “system differentiation”)

* Corresponding author. Tel.: +(98-910 230 6723); E-mail address: (golnaz.s.farshi@gmail.com).
The environment of a system is “a set of elements and their relevant properties, which elements are not part of the system, but a change in any of which can cause or produce a change in the state of the system” [4]. Finally, system boundaries are conceptual, arbitrary demarcations which “differentiate” the system from its environment.

According to Angyal, “in an aggregation the parts are added, [while] in wholes the parts are arranged in a system” [5]. The term ‘arrange’ here suggests the existence of some kind of “organizing principle” [2] or ‘order’ between system parts. Building on the concept of order, systems can be characterized as possessing four essential aspects, namely ‘structure’, ‘function’, ‘process’ and ‘purpose’.

Structure is the rule or ‘spatial order’ governing system elements. In other words, it is structure that defines the formal properties of a system. By integrating the element of time, systems gain a functional aspect as well. Function is thus the ‘temporal order’ governing relations between system elements. Since we tend towards a theory of social systems here, let us define the two remaining system features, that is ‘process’ and ‘purpose’, in social systems-theoretical terms. Luhmann assumes communication (which is the synthesis of information, utterance and understanding) to be “the elemental event of autopoietic systems” [3] including society. According to his scheme, autopoietic systems experience the input energy/information originated in the environment and produce action as their output to show that the communicated information was understood (or misunderstood!). “As soon as an input enters the system, its properties undergo a series of […] transformations and it acquires a new or different structure. Then it exits the system as output and enters the environment. The ‘order’ of the three successive system events (input/transformation/output) is what has been termed as ‘process’” [2]. The environment of a system always possesses a higher degree of complexity than the system itself. This implies that there is an infinite reservoir of potential environmental input at the system’s disposal, from which the system has to select the type and amount of energy/information it wants/is able to process. Selections that the system makes are not random ones, but are intended to move the system to an anticipated ‘future state’ known as ‘purpose’. Different types of purpose are categorized as: “goals (short-term purposes accomplished by natural resources), objectives (mid-term purposes) and ideals (long-term purposes)” [2].

2.2. Social Systems Theory

Social systems theory precisely highlights the concept of evolution, which in turn revolves around the two fundamental concepts communication and differentiation. In Luhmann’s model, societies begin their evolution course as “segmentary societies”, proceeding to “hierarchical” and finally “modern” or “functionally-differentiated” states [3]. Societies in the latter state, due to their increased complexity, assign the processing of input energy/information – categorized under Power, Plenty, Good, Truth and Beauty – to their five major subsystems Polity, Economy, Religion, Knowledge and Art respectively. Each subsystem employs its own generalized symbolic media of communication to code its input experience, output action and the criteria – known as control mechanism – which the subsystem uses to select environmental energy/information inherent for processing. The Art subsystem uses ‘beauty/ugliness’ as its experience code, ‘love/no-love’ as its action code and ‘taste/distaste’ as its control mechanism code.

2.3. Literature as a Subsystem of Art

Art undergoes stages of evolution as well, just like its containing societal system. Eventually there comes a time when it too bears the differentiation of sub-subsystems within its internal environment in order to become more autonomous and able to process more complex environmental input. Subsystems of Art are: “spatial art, temporal art, spatiotemporal art (verbal art or literature) and cinematic art (which is the combination of all three)” [2]. The four system aspects of verbal art or literature are:

Structure – From the viewpoint of ‘system differentiation theory’ (VS ‘system complexity theory’ which, thematizing literature, ends up in linguistic studies), the basic constituting subsystems of any work of literature are ‘time and space’, ‘characterization’ and ‘themes and motifs’ (which classification is inspired by that proposed by Aristotle in his Poetics).

Function – It is through public disclosure that a work of art gains temporality and actually becomes “a work of art”. The function of literature is its perception either through reading or through public performance.
Frye interprets literary genres as functionally-differentiated subsystems of literature and lists their functions or “radicals of presentation” as: “Epic – being spoken in front of an audience; Drama – being acted in front of an audience; Lyric – being sung or chanted in front of an audience; and Novel – being read by an individual” [6]. This is while the function of the Screenplay, which serves as literary foundation for cinematic art, is being filmed and screened in front of an audience.

**Process** – A society develops different conceptions of notions of ‘time’ and ‘space’ in each evolutionary stage which conceptions result in the occurrence of particular circumstances within the society’s boundaries. Each subsystem of Art processes these circumstances with the aid of its own system-specific binary codes (which are, in turn, coupled with the ‘beautiful/ugly’ experience and ‘love/no-love’ action code of their supersystem). The literary subsystem is responsible for processing conflicts.

Each social subsystem processes environmental input with the aid of its binary codes through a process of communication, and it produces action which communicates either acceptance or rejection of the communicated input. But there are times when a certain input acceptable for one social subsystem is rejected by another, and this is when conflicts arise. The most basic types of conflict and literary subsystems responsible for their processing are: “Epic – conflict of system (right) with environment (wrong); Drama – conflict of one individual/subsystem (right) with another individual/subsystem (right); Lyric – conflict of wrong (as right) with right (as wrong) which occurs between an individual/subsystem and himself/itself; Novel – all of the above; and Screenplay – all of the above” [2].

**Purpose** – One can attribute only mid- and long-term purposes VS short-term ones (that is, objectives and ideals VS goals) to Art and its subsystems. The ideal of literature, which complies with that of Art as its supersystem, is to stimulate social creativity, through a process that Luhmann discusses as “relaxation of the structural coupling of consciousness and communication” [7] or “catharsis” in Aristotelian terms. But the objective or mid-term purpose of literature is to serve as the society’s sensual memory and keep record of its earlier autopoietic operations and conflict managements.

### 3. A Social Systemic Method of Literary Adaptation

It is essential here to note the difference between literary modes and genres. Literary modes (like romance, pastoral, tragedy, comedy, parody, etc) have no “radical of presentation” [6] – hence no “function” in systems theoretical terms – and this is what differentiates them from genres. A mode’s function is specified when it enters a genre. Thus, literary modes *qua* modes are non-functional systems and only possess three of the four system aspects, namely structure, process and purpose.

“The institutionalization of art […] require that works of art “converse” with one another – that art cite, copy, reject, renew, ironize art – that art is reproduced […] within a referential nexus that transcends the work. Today this is called ‘intertextuality’” [7]. ‘Intertextuality’ is another term for ‘autopoesis’, that is, works of art are born out of works of art, which is in turn the case of literary adaptation. Autopoiesis of literary subsystem is an inevitable procedure and calls for the keeping-alive of the entire body of literature a society possesses. Works of literature created in a society are not isolated, individual creations; they are organically (VS “mechanically”) related to the society’s body of literature, which in turn serves as its memory. In this memory, the society’s background of conflict resolutions is preserved for ever. If some part of this memory is missing, the society will have no choice but to face conflicts it has solved before – or those it has already encountered but refused to get involved with for some reason – and re-solve them again and again; a process which consumes time and energy and hinders, if not halts, social evolution.

The above reasoning justifies the urge for revitalizing those works of literature that are neglected by the public and/or scholars and threatened to “extinction”. To employ Darwinian terminology, a system needs to adapt itself to variations imposed upon its previously-stabilized state in order to evolve. Hence, “adaptation” means but the evolution of literary works. An evolved literary mode/genre has no choice but to adopt some of the characteristics of its succeeding modes/genres which, in our “global” society, are the novel – as Bakhtin theorizes – and the screenplay. In other words, newly-created works of literature in the 21st century, regardless of their mode/genre and original or adapted notwithstanding, have to be “novelized” [8] and cinematized in order to be able to process contemporary conflicts. Novelization of a certain literary genre
means that, 1. It can formally encompass the structural elements of all preceding genres (namely Epic, Drama and Lyric) just as the novel does; 2. It can function as the novel, that is, be read by an individual; 3. It should process all conflicts that the preceding genres used to process. It is also possible that conflicts not be resolved in a novelized work of literature, as is the case of modern dramas and novels with open endings; and 4. It has access to the society’s entire collection of past memories of conflict resolution and not only parts of it that are confined to a certain genre. One aspect of the novel is its **polyglossia** or the presence of multiple voices. Parody is a perfect example of polyglossia, which can in turn serve as the ideal mode to help novelize a certain literary genre. Hence, a parodic drama, for example, can be interpreted as a novelized genre since parody carries with it the liberating characteristics of the novel as Bakhtin proposes.

**The Structure of Parody** – is but the coupling of two structural bodies – the parodied genre and the parodying “language”. The latter is not a genre because it lacks systemic relationships between its elements. It is merely a sum of elements – of characterization, time and space and themes and motifs – which, like parasites, are coupled with their counter parts in the original work to produce the effect of laughter.

**The Process of Parody** – Parody indicates instances of “absence” in serious genres and reveals aspects these genres have taken for granted. In systems-theoretical terms, parody processes inputs under ‘absence/presence’ experience code and produces actions coded as ‘ridicule/no-ridicule’, while employing the ‘ironic/not ironic’ control mechanism code. The word “absence” here is used in the same sense as “antimatter”: as possessing material characteristics in a negative manner!

**The Purpose of Parody** – According to the role that “fourth dramas” or satyr plays used to play in Greek theatre, the ideal of parody seems to be bringing the audience back from their extreme experience of certain feelings to the more balanced state of real life by showing them ‘the other side of the story’. Therefore the feeling that is purged, so to speak, by parody is that of ‘balance’. As for its objective, or mid-term purpose, parody seems to keep record of major genres’ ‘other side’, that is to say, it serves as a fragment of social memory which preserves all the energy and information the process of which was rejected by literary genres throughout history. It makes sure that these supplies of energy and information are not wasted away, but are kept in a reservoir of “antitheses” to serious genres in order to bring the society to a state of balance in case it gets too carried away with feelings aroused by these genres and loses contact with everyday reality.

Briefly stated, adapting a work of literature involves studying the four system aspects of the original work to determine its mode/genre, and defining the target mode/genre based on the adaptation purpose. To render this systems-theoretical adaptation method more vividly, let us briefly review the process of adapting the mode ‘romance’ to the genre ‘drama’ in a contemporary social context, that is, taking into account the novelization of the target drama as well. We shall see how the employment of parody’s three system aspects (since parody is a literary mode, it has no ‘function’ per se) can enhance the novelization of the target drama.

**Adapting the Structure** – which includes adapting romance characterization (i.e. polar characters with concealed inner motives, a lucky male hero and a tricky heroin) to dramatic characterization (heroes and villains who represent not individuals but social subsystems), romance time and space (large and diverse spaces and lands, accidental synchronization of events) to dramatic time and space (unity and confinement of space and time) and romance themes and motifs (hero’s abandonment as a child, loss of identity and descent in social status, trial, recognition of true identity, love stories and sex scenes, social snobbery) to dramatic themes and motifs (which depend on the drama’s mode) besides parodying romance characterization, time and space and themes and motifs, that is, looking for structural elements that are absent from the romance and making these instances of absence appear ridiculous in the target drama.

**Adapting the Function** - Since romance is a mode, hence a non-functional system, the function of drama dominates the adapted work. This is while the liberating parameters of novelization make the target drama compatible with all radicals of presentation at the producer’s disposal – from street performance to being read or filmed.

**Adapting the Process** – The ‘desire/no-desire’ input code and ‘sexual union/sexual separation’ output code of romance have to be coupled with the ‘right/right’ input code and the output code of drama (which depends on its mode). If the adapter tends towards a parodic drama, he can engage input and output codes of
parody, which are ‘absence/presence’ and ‘ridicule/no-ridicule’ respectively. In that case, he will come up with a drama which processes ‘righteous absence of desire’ (which is the result of coupling input codes of romance, drama and parody) and leads towards ‘ridiculous sexual union’ which causes the audience to laugh. Of course, since sexual desire is a recurring theme in romance, it is unlikely that it be absent from the original romance unless it were written under certain cultural/religious restrictions. Such “censored” romances provide perfect cases for adapting parodic genres due to their structural omissions or “absences”.

Adapting the Purpose – Which is possible through coupling goals of romance (purification of ‘relief’ in the face of problems which might endanger sexual unity) and of drama (purification of pity and fear in tragedy and that of “sympathy and ridicule in comedy” [6]) and objectives of romance (to secure social procreation – hence maintaining population growth in the face of death, illness, etc – through encouraging marriage) and of drama (recollections of conflict managements between social subsystems). In a parodic drama, the target mode shall have ‘purification of the feeling of balance’ as its goal by parodying structural and processual elements which are absent from the original romance. The objective of the target drama will be to reactivate the sum of energy/information that the original romance refused to process, helping the audience get a more panoramic picture of conflicts and how they can be resolved or left unresolved.

4. Conclusion

In our postmodern world, all disciplines call for new, interdisciplinary methods of research and enquiry, and literature is no exception. Systems theory has thus far proved to be the most flexible and compatible theory of all, due to its application in nearly all lines of scientific practice. With the aid of this meta-theory which is capable of relating subsystems back and forth to the pertinent supersystem or environment, one can develop absolutely new approaches towards interdisciplinary literary studies and criticism which in turn lead to the development of more practical methodologies such as those of literary adaptation. By analyzing the four system aspects of original and target modes/genres, one can come up with a systems-theoretical literary criticism and adaptation method which not only liberates literature from its former “solitary cell” of pure literary studies and views it as a social phenomenon, but is also potentially fit for adapting all works of literature as compatible with the social circumstances of the intended audience.

5. References