ABSTRACT
        This paper explores potential benefits for the novel
critic of exploiting analogies between the novel and the closed
system for more rigorous description and interpretation of novels;
and further development of the body of theory of novelistic
criticism, particularly where there are differences in critics'
interpretations of the same work. A closed system is one of two types
of concrete systems, the other type being the open system. The author
also briefly identifies three areas which have implications for
further study into a systems approach to analyzing novels. These
areas relate to other literary genres, text processing analysis
aspects of information science, and benefits of the "novel-closed
system" analogies for general systems theory. (Author/RB)

Potential Benefits for the Novel Critic of Exploiting

Analogies Between the Novel and the Closed System

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OBJECTIVE

The objective of this paper is to explore potential benefits

for the novel critic of exploiting analogies between the novel

and the closed system for (a) more rigorous description and inter-

pretation of novels; and (b) further development of the body of

theory of novelistic criticism, particularly with respect to recon-

ciliation or justification of differences in critics' interpretations

of the same work. The paper also briefly identifies several impli-

cations for further study. These relate to other literary genres,

text processing and analysis aspects of information science, and

benefits of the "novel-closed system" analogies for General Systems

Theory (G. S.-T.).

DEFINITION OF TERMS

Terms in the title, as well as several other basic terms,

will be defined. The definitions will be brief and perhaps inadequate

as a result. There is no shortcut to reading in their entirety

the two sources on which the definitions are based, with the exception

of "novel" and "story line," for which I provided the definitions:

(1) Miller, James G., "Living Systems: Basic Concepts," Behavioral

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Science, 1965, 10, pp. 193-237, 337-411; and (2) Falk, Eugene H.,
Types of Thematic Structure; The Nature and Function of Motifs in
Gide, Camus, and Sartre, Introduction by Bernard Weinberg, Chicago:
The University of Chicago Press, 1967. It may well be necessary
to read these sources several times for a thorough understanding
of the complex interrelationships contained. This is pointed out
to dispel expectation that a simple digest of the basic concepts
set forth by these two authors be provided here.

Novel

"Novel" and "closed system," terms in the title, will
now be defined. "Novel" refers to the representation of what
might be imagined. This includes the entirety of the novel's
interrelated constituents, given below. The key word in the
definition, which is the novel's most indicative characteristic,
is "representation." "Representation" signifies the conceptual
implications inherent in what takes place during interaction between
and among characters, as well as how it takes place. This refers,
of course, to an author's conception of and reporting on the develop-
ment of fictional relationships, as opposed to what takes place
in ongoing human interaction, as well as how it takes place, during
the development of real life relationships. A novel whose source
is actual reality is nonetheless classed here as fiction for the
reason that the author's intent is not the compilation of a pure
psychological, sociological, or historical account.

Following are the interrelated constituents of novels,
as viewed in this paper: systemic aspects of characters' ongoing

fictional communication interchanges, in both their report (content)
and command (relationship) aspects; story and plot; the "story
line," a term not used by Falk but defined here and enlarged on
be'ow to indicate the development and outcome of the novel as
determined by command (relationship) aspects of communication;
and the myriad expressive functions and structures that directly
or indirectly build into and unfold the story line. These con-
stituents will later be placed in a systems perspective and broken
into the "expressive" and "character interaction" subsystems as
the two major interrelated subsystems of the novel.

Closed System

"Closed system" refers to one of the two types of concrete
systems, the other type being the "open system." Concrete systems
are actually only relatively open or relatively closed (Miller,
p. 203). The novel is analogous to a concrete system, the only
true system, through its nonrandom organization into an illusion
of coacting, interrelated subsystems and components, but it does
not, in actuality, constitute a concrete system (see Laszlo, Ervin,
"The Meaning and Significance of General System Theory," Behavioral
Science, 1975, 20, pp. 9-24, for a clarification of confusion
surrounding the concept of "system").

The novel may appear, however, to possess the characteristics
of a closed system: isolation from its environment, no material
entering or leaving it, no energy required for maintaining its
ongoing processes, no energy obtainable from it, and its final
state unequivocally determined by the initial conditions (Bertalanffy,

Ludwig von, General System Theory: Foundations, Development, Applications, New York: Braziller, 1968, pp. 39, 121, 125, 40). But the closed system must eventually attain a state of equilibrium (Bertalanffy, p. 125). This the novel cannot do.

. Thus, the novel cannot, in reality, qualify as a closed system because of its key characteristic of what might be called, to invent a word, "representedness." Its constituents cannot change in any way. They may seem to change, however, through the sensation skillfully conveyed by the author. It may seem that characters' behavioral interactions are actually progressive developments, and that the novel's expressive structural elements are truly carrying out dynamic, or functional, adjustment processes which interrelate actively throughout the novel in terms of specific variables. But the author's techniques, applied prior to the appearance of the final product, are solely responsible for the novel's constituting more than the sum of its parts. Although interpretations of a specific edition may vary according to readers' backgrounds and predispositions at the time of reading it, the meaning that the novel potentially conveys remains fixed.

The concept of the novel as analogous to a closed system stems from and provides support for the theory of literary criticism that bases interpretation on text itself rather than on extraneous factors. These factors may concern the author's background and/or his statements concerning what he intended to convey in the novel. Falk, in the work cited above, explains this point further (p. 26). He does not consider extrinsic forces as points

of reference but instead takes the motifs in the text itself as
points of departure.

Systemic Aspects of Characters' Ongoing Fictional Communication Interchanges

While on the topic of "system," which was treated above
briefly as background for understanding the term, "closed system,"
it is useful to make the following clarification at this point:
systemic aspects of characters' ongoing communicational interchanges
represented in a novel, which aspects constitute one of the novel's
interrelated constituents, are not in themselves concrete, open
systems, even when based on a particular set of real life inter-
changes. They constitute only the author's portrayal of characters'
verbal and nonverbal behavioral patterning of specific characteris-
tics of their communication. This may seem obvious, but it none-
theless bears noting to avoid the mistake of referring to the novel
as though it truly constituted a system through representation
of communication systems.

One further commentary on represented fictional communication
systems can also serve as background for the paper in general,
particularly the "story line" subsubsystem treated below. Systems
communication levels found in the novel range from dyadic group
interchanges through interaction that effects supranational rela-
tionships. Characters' communication encompasses various forms:
two or more characters directly communicating; one character indirectly
interacting with one other character or more through reminiscence,
as in the case of Meursault in Camus' L'Etranger; or one character

directly communicating with one other character or more, with

the other's responses suggested rather than directly represented,

as in the case of Jean-Baptiste Clamence in Camus' La Chute.

Characters' efforts to avoid communication, or to respond in a

way that sidesteps the message conveyed, where these efforts exist,

must also be considered as communication because of the axiom that

it is impossible not to communicate. Thus, even when characters

are simply unveiled to themselves and/or to the reader, without

undergoing any change within themselves, interaction has never-

theless taken place, which effected the result of producing no

change.

Other Basic Terms

Following are the definitions of several other basic terms

which appear in this paper. A "system" is a set of elements standing

in interaction (Miller, p. 200, footnote 5). A "subsystem" is

the totality of all the structures in a system which carry out

a particular process (Miller, p. 218). "Components, or members,

or parts" are specific, local, distinguishable structural units

in which a subsystem exists (Miller, p. 218). "Motif" refers to

textual elements such as actions, statements revealing states of

mind or feelings, gestures, or meaningful environmental settings

(Falk, p. 2). "Leitmotifs" are motifs that effect an association

of ideas from one theme to another (Falk, p. 1). "Theme" refers

to the ideas that emerge from motifs by means of an abstraction

(Falk, p. 2). "Theme emerging from a motif" is to be distinguished

from "theme as topic," such as the hero's dominant characteristic,

the main event or situation, or the complex of features and situations associated with certain figures, such as Oedipus (Falk, p. 2).

"Story" indicates the chain of coherent events, or developments, in their sequential order (Falk, p. 5). "Plot" indicates the chain of coherent incidents in their causal order (Falk, p. 5). "Linear or sequential thematic coherence of the story" rests on probable succession of incidents as the principle of order (Falk, p. 5). "Causal thematic coherence of the plot" rests on necessity as the principle of order relative to the driving forces underlying the incidents (Falk, p. 4). "Generic coherence of the thematic fabric" is based on affinity of similarity or contrast in themes regardless of their actual disposition in the sequential order, of their causal connection, and of whether they occur in episodic units (Falk, pp. 4-5). "Distanciation" is the process whereby the reader gains perspective by displacing the focal point of his vision to emphasize the meaning of sets of sequentially coherent incidents, the meaning of the nature of their causes, and the meaning of their direction (Falk, p. 6).

PROCEDURE

This paper will attempt to illustrate the potential importance for the novel critic of exploiting analogies between the novel and the closed system by the following means: extrapolation from, modification of, and enlargement on an analysis of G. S.-T. concepts inherent in Falk's conceptualization of the interrelated thematic functions and structures of the novel in his Types of Thematic Structure. Falk derives his abstractions, although not

explicitly, from what amounts to an empirical application of G.
S.-T. concepts to criticism of three French novels: <u>La</u> <u>Symphonie</u>
<u>pastorale</u> by André Gide (Paris: Gallimard, 1960 edition); <u>L'Etranger</u>
by Albert Camus (Paris: Gallimard, 1963 edition); and <u>La</u> <u>Nausée</u>
by Jean-Paul Sartre (Paris: Gallimard, 1962 edition).

RELATED LITERATURE

Two items in the literature which report text processing
and analysis activity are particularly relevant to the present
paper. They provide general background reading on both theoretical
and methodological aspects of this general area. <u>Automated</u> <u>Con-</u>
<u>textual</u> <u>Analysis</u> <u>of</u> <u>Thematic</u> <u>Structure</u> <u>in</u> <u>Natural</u> <u>Language</u> by L. D.
Misek gives "an account of the basic concepts leading to present
capabilities in automated contextual analysis of structural thematics
in natural language texts as tools for the deployment of learning
about verbal behavior" (Cleveland: Case Western Reserve University,
1970, p. 1). Literary criticism is included among the fields of
possible applications. The Misek study does not purport to be
based on G. S.-T. concepts but makes the following reference to
systems: "The author with Thomas F. Shook of the Systems Research
Center then proceeded to explore several programs for implementation
of n-dimensional models for natural language systems, on Univac
as well as General Electric facilities" (Misek, p. 12).

"New Models and Methods in Text Analysis" by Ursula Oomen
(In <u>Linguistics:</u> <u>Developments</u> <u>of</u> <u>the</u> <u>Sixties</u> - <u>Viewpoints</u> <u>for</u>
<u>the</u> <u>Seventies</u>, Monograph Series on Languages and Linguistics, no. 24,
Ed. Richard J. O'Brien, Washington, D. C.: Georgetown University

Press, 1971) is based on the assumption that the differentiating characteristics of various types of texts derive from their communicative functions. The author explicitly proposes that a "systems model from General Systems Theory" (p. 211) be developed as a coherent general framework for the description of texts as dynamic processes consisting of a complex network of linguistic components and relations. The present paper, on the contrary, takes the stand that texts do not contain true, dynamic processes. Rather, analogies between texts, limited here to novelistic texts, and the closed system are postulated as mutually useful to both the literary critic and those concerned with G. S.-T. theory and applications.

ANALOGIES BETWEEN THE NOVEL AND THE CLOSED SYSTEM

Analogies Based on Falk's Types of Thematic Structure

This paper's objective to explore potential benefits for the novel critic of exploiting analogies between the novel and the closed system will now be pursued. This will be accomplished through an analysis based on Falk's Types of Thematic Structure, cited in full above, for analogies to G. S.-T. concepts inherent in his conceptualization of the interrelated thematic functions and structures of the novel. The Falk work will be extrapolated from, modified, and enlarged on to provide a G. S.-T.-oriented basis according to which critics might approach their work. It shculd be kept in mind that terminology related to G. S.-T. concepts is used only in an analogous sense. The analogous systemic level

of reference in the present paper is taken to be the novel as
constituting a system.

The various kinds of motif and leitmotif structures and
their functions, which are treated in the Falk work, are considered
here to form one of two major interrelated subsystems of the novel.
This subsystem will be referred to as the "expressive" subsystem.
(The other major subsystem, treated below, is the "character inter-
action" subsystem.) Both subsystems are laterally dispersed.
This is obvious because each is dependent on multiple components
for each of the processes involved (Miller, p. 221). The inter-
relationship of the two subsystems is a concept fundamental to
sound novelistic criticism. The expressive subsystem contains
hierarchically ordered subsubsystems, plus one level below these,
which constitutes the subsubsubsystem level. These levels represent
simple concepts in spite of the multiple prefixes. The reader
may not always agree with the choice of subsystems and components
of the novelistic system as presented. However, problems unearthed
in the attempt to identify and differentiate subsystem processes
and component structures illustrate the necessity for further
critical consensus toward revealing more fully the novel's orchestral
qualities.

The subsubsystem of the expressive subsystem, which might
be designated as the "parallel" subsubsystem, engages in a process
whereby component structures called "materially similar parallel
component motifs" carry correlative themes. The motifs appear at
the least in pairs; the sequentially later reveals the allusive
quality of the one preceding; and it is their parallelism that

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serves to point to the correlative nature of their themes (Falk,
p. 16). An example from Gide's _La Symphonie pastorale_ of a motif
that carries in relation to its component motif two correlative
themes is provided in the Falk work (p. 19). Other components
of the parallel subsubsystem are "materially different parallel
component motifs." These motifs are identifiable only after their
themes have proved to be correlative (Falk, p. 19).

The subsubsystem of the expressive subsystem, which might
be designated as the "associative" subsubsystem, engages in a process
whereby component structures called leitmotifs serve as thematic
links, or at times simply function to emphasize the theme they
carry. The leitmotifs effect an association of ideas from one
theme to another in the novel by drawing attention to the component
nature of the motifs in connection with which they occur; they
thereby alert the reader to the correlative quality of the themes
the component motifs carry (Falk, p. 8).

Various types of leitmotifs function in different ways at
a level below the associative subsubsystem, or at the subsubsub-
system level. The subsubsubsystem of the associative subsubsystem,
which might be designated as the "thematic link by emphasis" sub-
subsubsystem, engages in a process in which recurring component
structures of leitmotifs, known as repetitious labels, are operative.
These leitmotifs, a gesture, word, or phrase, underscore some
particular trait of a character (Falk, p. 9). The primary function
of the repetitious label is to emphasize the theme it itself carries,
which is a theme descriptive of character (Falk, p. 12).

Another subsubsubsystem of the associative subsubsystem,
which might be designated as the "thematic link by similarity or
contrast" subsubsystem, engages in the following process.
Recurring, similarly phrased component structures of leitmotifs,
known as linking phrases, allude by their recurrence to the
similarity or the contrast of themes in connection with which
they appear in sequentially separated situations (Falk, p. 12).
The association would appear suspended if the situations them-
selves were not relatable by the similarity or the contrast of
their respective themes. For example, the pastor in La Symphonie
pastorale repeatedly consoles Gertrude in almost identical terms
for her inability to see (Falk, p. 11).

Repetitious labels may serve as components of this subsub-
subsystem when they function in the depiction of new similar or
contrasting situations, as well as in the simultaneous recall of
previous situations. See the example given by Falk (p. 10) concerning
Gertrude's earlier voracious devouring of food and her later
voracious craving for knowledge. See also the example (p. 11)
in which the linking phrase concerning "those who can see" also
serves to develop the pastor's attitudinal state, a functional
aspect of what Falk refers to as motifs of the story.

Still another subsubsubsystem of the associative subsubsystem,
which might be designated as the "thematic link by image" subsub-
subsystem, engages in a process in which recurring component struc-
tures of leitmotifs known as "linking images" are operative. These
leitmotifs relate themes in situations scattered in the text by
reflecting in a perceptual manner as images, such as "snow," the

themes they relate (Falk, p. 15). The linking image "does not
recur every time in connection with every situation the themes
of which it reflects, but is placed focally so that its diverging
rays reach situations in the text and so that themes carried by
these situations converge upon it" (Falk, p. 15).

Both "materially similar parallel component motifs" and
"materially different parallel component motifs" may serve inciden-
tally as components of this subsubsubsystem when they relate to a
pervasive aspect of the whole thematic fabric. This is illustrated
by Falk's example (p. 20) from La Symphonie pastorale concerning
two materially different component motifs which reflect the aspira-
tion of Gertrude's soul toward moral and spiritual goals. See
also the example (p. 15) in which the linking image of "the lost
sheep" serves in addition to develop the pastor's attitudinal
state, a functional aspect of what Falk refers to as motifs of
the story.

The parallel and the associative subsubsystems of the
expressive subsystem have been treated above. All have dealt
with generically coherent motifs. The next two types of motifs
are those of the story and of the plot, but whereas Falk regards
these on the same plane as other motifs, they are considered in
this paper as more appropriately subsumed into the character inter-
action subsystem, the other of the novel's two major interrelated
subsystems.

Motifs of the story engage in a process in which component
structures of motifs - actions as well as the conditions and cir-
cumstantial situations in which actions take place or which result

from actions - are operative. These motifs carry themes of attitudes or moods in their development and in their relations to other similar or contrasting expressional meanings within one work (Falk, p. 25). Structures of motifs whose purpose is limited purely to description without thematic significance might be considered as the "descriptive subsubsystem" of the expressive subsystem. Contingent incidents, which Falk (p. 28) treats separately as catalysts "setting into motion actions to which a character is predisposed by inclination or conviction," might be treated as a separate "contingent" subsub-system of the expressive subsystem.

Motifs of the plot engage in a process in which component structures of motifs - actions which may consist of communicational interchanges, deeds, and gestures - are operative. These motifs carry themes of the motivations which engender them and of the purposes they fulfill (Falk, p. 27).

More Rigorous Description and Interpretation of Novels

The above analogies of the novel to a closed system suggest two major benefits for the novel critic toward more rigorous description and interpretation of novels. First, themes would more likely be interpreted with greater accuracy because the role of generically coherent motifs might be more readily kept in perspective. For example, in some critical writings, interpretation gives the impression that the story and plot exist to support the meanings read into generically coherent motifs. Rather, these motifs function as expressive elements which interrelate with the character interaction subsystem to support the development, or unfolding for the reader,

of the novel's story line. The latter will be identified below
as the key subsubsystem of the character interaction subsystem
and as the central organizing principle of the novel. Misinter-
pretations derived from distortion of the role of motifs are less
likely.to occur where "materially different parallel component
motifs" are involved, for the significance of these motifs is
revealed only after the correlative nature of their themes has
been discovered.

The second benefit for the novel critic derived from pursuit
and utilization of analogies of the novel to a closed system is
the resultant assistance in advancing toward the firmer formulation
of criteria for assessing a "good" novel. This could result through
insights obtained from the G. S.-T. concept of pathology: "any
abnormal state of a system which forces a steady state variable
beyond its range of stability or significantly increases the costs
of adjustment processes required to keep it within the range of
stability" (Miller, p. 376). The novelist's techniques are analogous
to the adjustment processes operative among subsystems and com-
ponents. In exercising his techniques, the novelist might include
inappropriate inputs to, or lacks or excesses in, certain subsystems
or components. He might also incorporate abnormalities into
structural relationships (containment, number, order, position,
direction, size, pattern, density: Miller, p. 361), or into process
relationships (temporal: containment, number, order, position,
direction, duration, pattern; spatiotemporal: action, communication,
direction of action, pattern of action, entering or leaving con-
tainment: Miller, p. 362).

In addition, a novel may lack sufficient cohesiveness, i. e., sufficient textual proximity among subsystems and components which carry themes. For example, textual proximity is indispensable in the case of "materially different parallel component motifs" (Falk, p. 45). A novel may also lack sufficient integration for the coordination and smooth feeding of its processes into the story line, defined above.

Further Development of the Body of Theory of Literary Criticism

The analogies of the novel to a closed system which have been identified suggest two major benefits for the novel critic that bear on utilization of the analogies in the further development of theory of literary criticism. These apply especially to reconciliation or justification of differences in critics' interpretation of the same work. First, use by critics of standardized vocabulary and procedural approaches suggested by G. S.-T. concepts could aid comparative study of interpretations, which study is fundamental to further development of the theory of novelistic criticism. Consistent attention throughout the novel on the part of the critic to commonly acknowledged principles of organization as a basis for criticism is prerequisite to seeing the interrelationship of parts with one another and with the whole. When critics state their approaches explicitly, the theoretician can then more readily identify which specific methodological procedures result in which interpretations. As a result, reliability and validity of each critic's methodology in terms of his specified critical objectives, which should also be stated explicitly, could more

readily be assessed. A group of related works by the same author,
such as the Rougon-Macquart series by Zola, could be viewed as a
system with laterally dispersed subsystems.

The necessity for a systems-oriented approach becomes
especially apparent in instances like the following. A critic
provides an interpretation of a novel, with the exception of the
novel's ending, according to a thematic analysis centering on
high frequency words, but he then proceeds to interpret the ending
in a way that appears to have not even an implicit relationship
to the critical principles employed in the interpretation of the
novel prior to its ending.

The second benefit toward developing theory of novelistic
criticism is that use of the analogies could facilitate more precise
insight into what constitutes the central organizing principle
of the novel. The story line subsubsystem of the character inter-
action subsystem is postulated below to serve this purpose. The
report (content) and command (relationship) aspects of represented
fictional communication, as well as all other related aspects,
constitute, along with story and plot motifs, one of the novel's
two major interrelated subsystems, the character interaction sub-
system. The other major subsystem, it will be recalled, is the
expressive subsystem.

As noted earlier, unlike Falk's treatment of story and
plot motifs on the same plane as the more distinctly expressive
motifs, the former are considered in this paper as more appropriately
consolidated and subsumed into the character interaction subsystem.
Thus, each of the enumerations under the two types of motifs can

be regarded as a subsubsystem of the character interaction subsystem:
(1) story motifs: actions, as well as conditions and circumstantial
situations in which actions take place or which result from actions,
and (2) plot motifs: actions consisting of communicational inter-
changes, deeds, and gestures, from the point of view of the moti-
vations which engender them and of the purposes they fulfill.
Through this broad grouping into what is designated as the character
interaction subsystem, the novel critic can more readily distinguish
the full extent and significance of each subsubsystem's function
and identify interrelationships among the subsubsystems with greater
clarity. A more unified perspective can thus be obtained which
attends comprehensively to all aspects of characters' verbal and
nonverbal behavioral interaction.

Character interaction subsubsystems might be further broken
down relative to such factors as the following which bear on com-
munication message content and "why" factors behind interaction:
each character's information processing system and his capacity
for effective, normal communication; other "self-regulated" aspects
of his behavioral interaction as determined by heredity and environ-
ment; his self-concept; his attitudes and the functions they serve
him for engendering purposes and motivations; the voluntary or
involuntary, conscious or unconscious, nature of his responses;
his response content as classified by means of the recently popularized
transactional analysis; his response content as placed on the
continuum of Chris Argyris' categories for observing behavior (Organi-
zation and Innovation, Homewood, Ill.: Richard D. Irwin and Dorsey
Press, 1965); and communicational misperceptions, or the extent

to which messages are encoded and/or accurately decoded and inter-
preted (Laing, R. D., H. Phillipson, and A. R. Lee, _Interpersonal_
Perception; A Theory and a Method of Research, New York: Springer,
1966). These factors are obviously difficult to utilize in inter-
preting a novel, in spite of critics' frequent attempts on inadequate
grounds to explain why characters interact as they do in the novel
in question.

One further subsubsystem is included, therefore, in the
character interaction subsystem and is postulated here to be the
key subsubsystem in that subsystem and the central organizing prin-
ciple of the novel - the story line subsubsystem. The essentiality
of the story line subsubsystem stems from its function of determining
the nature of the relationship between any two characters and
the direction that characters' interrelated dyadic relationships
ultimately take. It is concerned with the "how" of characters'
communicational interchanges as they form interactional patterns,
the momentum of which carries with it the development and outcome
of the novel. Because it is not concerned with the "why" behind
characters' communication patterns, it obviates that pitfall of
novelistic criticism.

The relationship, or command, aspect of characters' inter-
action, which figures predominantly in the story line subsubsystem,
is characterized by symmetrical (like) and complementary (unlike)
types of interchanges, neither of which are good or bad, normal or
abnormal, in and by themselves (Watzlawick, Paul, Janet Helmick
Beavin, and Don D. Jackson, _Pragmatics of Human Communication;_
A Study of Interactional Patterns, Pathologies, and Paradoxes,

New York: Norton, 1967, p. 107). For example, in a symmetrical
(like) set of interchanges, two characters argue and their inter-
changes escalate pathologically and result in murder; in a comple-
mentary (unlike) set of interchanges, two characters display a
dominant-submissive relationship which results pathologically in
the discounting of the submissive partner by the dominant partner,
i. e., the seeming denial by the latter of the former's very existence.
The content of communication messages, as well as whether they
are true, false, valid, invalid, or undecidable, are irrelevant
in determining the command aspect of characters' communication
(Watzlawick, pp. 51-52).

The story line subsubsystem is somewhat, although not
actually, analogous to the decider subsystem in a living, open
system. According to Miller's definition (p. 357), "the decider
is the executive or administrative subsystem which controls the
entire system, causing its components and subsystems to coact."
Among the critical subsystems of living systems, only the decider
is essential, in the sense that a system cannot be parasitic or
symbiotic with another system for its deciding; nor can the decider
be dispersed upwardly, downwardly, or outwardly (Miller, p. 222).
It is illuminating to note the comparison, however stretched, of the
story line subsubsystem with the decider subsystem in living systems.
The story line subsubsystem is essential to the novel just as the
decider subsystem is essential to living systems. It is also
helpful to take cognizance of the distinction that "a decider differs
from a node in a channel or net in that the number of alternatives
or degrees of freedom in the output of a decider is smaller than

in the input" (Miller, p. 358). Although the story line subsub-
system does not actually decide anything, singly it exercises greater

control over relationship outcomes than the many "why" factors

that may serve as input into characters' communication interchanges.

(See the Watzlawick, Beavin, and Jackson volume, cited above,

Chapter 5, "A Communicational Approach to the Play ' Who's Afraid

of Virginia Woolf?'", pp. 149-186, for a demonstration of cross-

check value of the "how" approach against interpretations made by

those critics who derive them from "why" factors.)

IMPLICATIONS FOR FURTHER STUDY

Other Literary Genres

The first implication for further study yielded by the
above analysis is that the application of G. S.-T. concepts also
to the literary genres of dramatic texts and short stories could
enhance their interpretation and perhaps result in still more
precise differentiation in thei characteristics.

Text Analysis and Processing

The second implication for further study is that the con-
ceptual theoretical framework relative to novelistic functions
and structures derived from utilization of G. S.-T. analogies
could provide the basis for development of more sophisticated text
analysis and processing methodology. Schemes of computer-retrievable
notation for coding parallel features, linkage indicators, and
other aspects of novelistic interpersonal behavior could feasibly
be derived (see my "Computer-Based Analysis of Fictional and Dramatic
Texts as Self-Contained Operative Systems," ERIC Document 099 883,

for an example of coding of the story line subsubsystem of the
character interaction subsystem). The initial coding from text
would necessarily be largely, if not entirely, manual. Interpreta-
tions of a novel derived from the data retrieved from these conceptual
notation schemes could be compared with those derived from data
retrieved from text processing systems based on the presently much
utilized techniques of thesaurus building for identification of
word frequency.

The novelistic text analysis and processing methodology
developed to encompass G. S.-T. analogies could also have transfer
value in revealing less obvious contextual relationships embedded
in transcriptions of real life human interaction. These may record,
for example, psychotherapy sessions or international conferences.
(Discussion of selected applications of text processing systems
in the social sciences is included in my "Text Processing Systems
and the Analysis of Character Interaction in the Novel," Library
School Review, May 1975, School of Library Science, Emporia Kansas
State College, pp. 18-27). Identified nonliterary equivalents
could afford advantages for nonfiction text analysis similar to
those provided for fiction through the systems approach invited
by the art of the narrative. This approach reveals "the perspective
opened up in the process of distanciation and the awareness of
the perceived relationships of probably or necessarily coherent
parts within a readily recognizable coherent whole, or of the
random grouping of parts in what proves to be generically a coherent
whole" (Falk, p. 8).

Benefits of the Analogies for G. S.-T. and Applications

The third implication for further study is that analysis
of the effect of the representation aspect of fictional communication
systems could in turn serve as a tool for use in the further theoreti-
cal development of General Systems-Behavior-Theory (G. S.-B.-T.).
In what specific ways do living, open concrete systems and repre-
sented fictional communication systems differ? An answer to this
question could help clarify what appears to present confusion
between established, whether or not written, organizational routines,
which are subsequently carried out, and the human communication
systems of the people who design them.

The novel, it has been emphasized, constitutes only the
representation of what might be imagined to have taken place among
characters. In the same manner, established organizational routines
constitute only the representation of what individuals carry out.
Just as novels are created by authors, routines are created by
organization personnel. Questions regarding G. S.-T. then arise,
especially concerning recursive organizational routines, those
which, once started, run off to completion regardless of the con-
sequences. These questions are relevant to the following comment
by Karl E. Weick ("Middle Range Theories of Social Systems,"
Behavioral Science, 1974, 19, p. 365): "The point is that the
further along a recursive process is in its sequence, the less likely
it is to be affected by other elements related to it and the less
appropriate it is to analyze this situation as if it were a system."
What, then, is the relationship between established routines as
they are carried out and the human decision making processes that

determined the recursive nature of the established routines, with
provision, or neglect of provision, for feedback? If components
and subsystems or organizations are things and routines, as well
as people, what is their interrelationship?

. Where routines in turn define and structure the decision
situations that are handed to leaders for their supposed decision
making (see the example Weick provides, p. 364), are observers
missing the significance of the systemic element inherent in
leaders' responses that reflexively adhere to habitual routines?
Or, as more accurately seems to be actually the case in the example
Weick provides, are observers missing the systemic element inherent
in the reflexive responses on the part of those who seem compulsively
to implement directives in a way familiar to them, rather than
as directed? What are the systemic implications of the distinction
between the decider subsystem and those who implement the resultant
directives or fail to do so? In order to determine whether a true
systemic function exists, is it necessary to determine whether
decision makers and implementers reach their conclusive behavior
through full awareness and free volition, rather than through habit
or subconscious influences? Or is the response itself, regardless
of the respondent's intent, or degree of awareness and volition in
regard to it, the factor that suffices in order for the response
to qualify as a systemic transaction?

Why do recursive routines not constitute a situation that
can be treated as a system? Is it because the routines are recursive?
Or is it because in their "representedness" they are analogous
to represented fictional communication systems which, according

to the contention above, do not qualify as true systems? Does

the systemic aspect of the recursive routine not instead consist

of the response of the designer(s) of the routines to those in

the organization who assigned the task of designing them, as well

as of the responses of those who implement them or fail to do so

as directed?

Analysis of characters' communication systems in the novel

also suggests benefits for G. S.-T. applications to living, concrete

systems. The use of novel study in educational programs in behavioral

science is most effective only when the nature of the limitations

placed on fictional communication systems by their "representedness"

is thoroughly understood. What, if anything, can be learned from

represented fictional communication about the decision-making process

behind human responses? In what ways does the study of the novel

as though it were an experimental situation distort insights regarding

the communicational processes represented? Precisely what of validity

is contributed toward the understanding of human interaction when a

novel is said to be true to life?

On the one hand, application of novelistic techniques that

invite a more intellectually-oriented distanciated vision and reveal

the relationship of details to the larger context of the whole

could result in improved construction of procedural methodology

for the reporting of group interactions and for the transmission

of directives. Organizational systemic functioning could then

become more efficient and effective. On the other hand, application

of the novelistic techniques utilized in the subsubsystems of the

expressive subsystem could secure a place for emotional elements.

These could provide a possible solution to the major problem John
W. Gardner identifies relative to organizational reporting in
his Self-Renewal; The Individual and the Innovative Society (New
York: Harper, 1964, p. 98): the filtering out of "emotion, feeling,
sentiment, mood and almost all of the irrational nuances of human
situations."