Groundwork of a Sartrean Input Toward Informing Some Concerns of Critical Systems Thinking

Ion Georgiou[1]

Research under way by this author seeks to return to von Bertalanffy's philosophical deliberations believing that they can provide an input which is as yet untapped and which provides a journey through phenomenological and existential ideas. The motivation for the research stems from three interlinked areas. First, in examining the beginnings of Critical Systems Thinking, a justification is found for its embrace of diverse inputs which began with Critical Theory and Habermas. A main conclusion is that any diversity must have one thing in common: it must not violate systemicity. This leads to an examination of the initial Habermasian incorporation, where one finds that a question which directly leads Critical Systems Thinking to consider critical awareness, social awareness, and human emancipation remains unanswered. An answer is provided, but this answer comes from an as yet untapped source in the field, the work of Jean-Paul Sartre. The appearance of Sartre in providing what is deemed to be an important answer begs the further question of whether he can inform Critical Systems Thinking without violating systemicity. A return to von Bertalanffy, in the third section, shows that no such violation is pending since a reading of his philosophical deliberations paves the way for an input from Sartre, first through the phenomenological tradition and then through its existential variant. In the process, the systemic nature of both Sartre's approach and ethical concerns unfolds.

KEY WORDS: Critical Systems Thinking; General System Theory; Sartre; von Bertalanffy.

1. INTRODUCTION

"If someone were to analyze current notions and fashionable catchwords, he would find "systems" high on the list"–so wrote Ludwig von Bertalanffy in the Introduction to his 1968 revised edition of *General System Theory* (von Bertalanffy, 1968, p. 3). Indeed, since his instigation, a systemic discipline has

[1] School of Business Strategy and Operations, Faculty of Business, Kingston University, Kingston Hill, Kingston Upon Thames, Surrey KT2 7LB, United Kingdom.

emerged which includes System Dynamics, Soft Systems Thinking, Complexity Theory, Cybernetics, and Critical Systems Thinking—to name but a few. This paper touches upon Soft Systems Thinking but is focused on Critical Systems Thinking.

As a biologist, von Bertalanffy disagreed with employing reductionism to the appreciation of living organisms. He argued that in dividing them into parts and treating these as closed systems and independent units of analysis, one lost touch with the dynamic and synergistic interplay of organisms: "for an understanding, not only the elements but their interrelations as well are required" (von Bertalanffy, 1968, p. xix). To this end he developed his theory of open systems in the mid-1920s, elucidating functional and relational organismic behavior within a wider environmental context. This development complemented the theory of closed systems and more is derived of this relationship later in the paper.

The work on open systems was soon to inform the more ambitious project of General System Theory, whose aim was the "formulation and derivation of those principles which are valid for systems in general" (von Bertalanffy, 1968, p. 32). These general principles were to be derived from the isomorphy exhibited across different fields, enabling an effective methodological means of controlling and instigating the transfer of principles from one field to another, thus minimizing duplication of "the discovery of the same principles in different fields isolated from each other" (von Bertalanffy, 1968, p. 80). The paper later reflects upon this as an ontological approach and further conclusions are derived.

By the 1950s, von Bertalanffy (1968, p. 186) was applying his research to psychology in order to arrive at a "system concept in the sciences of man." He argued against a mechanistic conception of human beings, critiquing prevailing psychology of the time, and emphasized the consequential importance of the mental world on material events. This part of his work is especially relevant for the research outlined in this paper and merits detailed attention which must be postponed until another time.

The 1970s saw the rise of Churchman's influence and the coupling of von Bertalanffy's Systems worldview with interpretivism, one result being Checkland's "soft systems," which aimed at tackling human–social problems (Jackson, 1985a, 1987; Checkland, 1981a). Churchman and Checkland argued that human systems required an understanding of systems of meaning, including the values which people ascribe to the world (Flood, 1999a; Jackson, 1982). In Soft Systems Thinking systemicity is transferred "from the world to the process of enquiry into the world ... the system is not something out there in the situation but is the process of enquiry, a process which happens to make use of pure systems models" (Checkland, 1989). Now, the concept "system" did not belong only to observable phenomena; it could be used to map out people's perceptions of a problem using tools which enabled them to view their perceptions as systems within wider systems. In this way, debate and accommodation could be

achieved in a rational way for problems steeped in nonrational entities such as culture and values (Checkland, 1981a).

Since the 1980s, Critical Systems Thinking has also concerned itself with designing new methods which make use of the system concept—a notable example is Total Systems Intervention (Flood and Jackson, 1991a). The importance of perceptions as maps is also supported, albeit within a deeper philosophical outlook based on Kant's problematic/critical idealism, which is deemed indispensable to Critical Systems Thinking (Flood and Ulrich, 1990). Indeed, it is this generally increased reference to philosophy and the social sciences which has led Critical Systems Thinking to critique the work of Churchman, Ackoff, and Checkland (Jackson, 1982)—although all three have been far from dismissed by this field (Flood and Jackson, 1991b), indicated, in particular, through the work of Ulrich (1987) whose indebtedness to Checkland and Churchman is explicit. The critique is based on a framework of concerns that have been stated widely and center upon critical awareness, social awareness, methodological complementarism, theoretical complementarism, and human emancipation (Jackson, 1991a). They have been informed through philosophical deliberations, initially stemming from Critical Theory and the Frankfurt School (Flood and Jackson, 1991b). This paper focuses on aspects of the philosophical deliberations.

Before an outline of the paper is presented, two issues which have arisen in the Critical Systems Thinking literature should be mentioned: the first, and more overt, regards the search for foundations; the second, and more subtle, regards the bypassing of von Bertalanffy in this branch of systemic thought. The research to be presented disagrees with the former and questions the latter.

1.1. Critical Systems Thinking: Foundations vs. Concerns

All areas within the systemic discipline acknowledge the importance of the Systems worldview. Critical Systems Thinking uses systemic arguments, that is, arguments based on a worldview of interrelated systems, in order to address its *concerns*. In order to do this, it has drawn upon diverse systemic arguments in philosophy, for example, the works of Habermas, Foucault, and Marx, to mention only three. This diversity appears to lack convergence. However, this lack of convergence is most appropriate, as Flood and Ulrich (1990) explain:

> [We] wish to point out that notions of convergence, or absolutisms, should be avoided in critical studies. For instance, it is anticritical to expect that we can work toward a view with which "we all feel comfortable" (a bounded idea promoted by several eminent "systems thinkers"), be it with the outputs of methodological activities or indeed the methodological approach itself. Contrary to this, we propose that we should remain uncomfortable. A "truly" critical approach must be open to emancipation from itself and even to calls of abolishment, as must the "output" of methodological activities. As we take our theories to the practical world of men and women, we must

equally allow these practical people to bring their worlds to our systems interven-
tion.

This point sometimes tends to be ignored. For instance, Brocklesby and
Cummings (1996) explore whether Critical Systems Thinking can be informed
by the thought of Foucault, tracing the historical development of Habermas and
Foucault in the literature and examining the differences between the two with
regard to systems. Their mistake is that they also want to spark debate in order
to assess "the relative merits of each as a basis for Critical Systems Thinking"
(1996). This search for a basis, or foundation, is quite unlike what Critical Sys-
tems Thinking is about. Moreover, their argument is essentially flawed for it
effectively says: "Here we have Critical Systems Thinking. Now let's find its
basis," i.e., the conclusion is presented with the premises still to be found. If
we were to follow this through, the very suggestion that we examine the rela-
tive merits of other bases means that, at best, Critical Systems Thinking's basis
is weak and questionable and, at worst, Critical Systems Thinking has no basis
at all. By approaching the discussion in this way (i.e., inversely, given Critical
Systems Thinking, search for a basis—as they have done), any philosophical
foundation attributed to Critical Systems Thinking becomes—as Walter (1998)
suggests when discussing philosophical reflections evident in pop songs—in dan-
ger of being reduced to the rank of a gimmick, a way of establishing brand iden-
tity, a weapon used to convince a skeptical audience of the approach's relevance.
Apart from the fault in their argument, Brocklesby and Cumming's search is, in
any case, irrelevant due to the convergence argument stated above which reflects
the nature of Critical Systems Thinking where one must talk of *sources which
can inform its concerns*—not of bases or foundations.

1.2. Critical Systems Thinking: The Gestation Period and the By-Passing
of von Bertalanffy

One should therefore approach Critical Systems Thinking not as a school of
thought requiring foundation. Flood (1999b) describes it as "a space and forum
within which reflective researchers may build a common strength in prepara-
tion for further challenges ahead." This echoes Schecter's (1991) view 8 years
earlier:

> Another requirement is that the critical (overarching) perspective maintains its inde-
> pendence from particular approaches. In [the words of Flood and Ulrich], "Being
> critical is not a quality of a certain position or approach, rather it is the quality of
> remaining self-reflective with respect to ... all positions or approaches."

The situation in 1980 was very different, however. The early 1980s may be
called the "gestation" period of Critical Systems Thinking, where relevant con-
cerns were being argued, but they were not yet identified by a common name. In

1983 one witnessed the first mention of a "critical systems perspective" (Ulrich, 1983; Jackson, 1985b). At least by 1988 (Oliga)—and perhaps earlier—the term "critical systems thinking" was being used. The birth and baptism of "Critical Systems Thinking" came in 1990 (Flood and Ulrich, 1990) and were further marked by Flood and Jackson's (1991b) *Critical Systems Thinking: Directed Readings* in 1991.

The gestation period was a time when foundationalism was a hot pursuit, with Habermas' influence claiming the larger share of the territory. The foundationalist stance in Critical Systems Thinking was short-lived, however, since it soon became apparent that there existed other relevant systemic sources from which to draw in order to tackle the concerns—witness the Foucauldian strand (Flood, 1990; Jackson, 1991b; Davila, 1993; Valero-Silva, 1996a, b) and the promising, but as yet undeveloped, MacIntyrian input (Munro, 1997).

One of the striking elements of this period is that little attention seems to have been paid in the ways von Bertalanffy's own philosophical deliberations may provide useful input. Critical Systems Thinking began by generating an externally influenced framework beginning directly with the thought of Habermas and bypassing the internal, existing source of von Bertalanffy.

1.3. Structure of the Paper

Research under way by this author (Georgiou, 1999a, b) seeks to return to von Bertalanffy's *philosophical deliberations* believing that they can provide an input to Critical Systems Thinking which is as yet untapped and which provides a journal through phenomenological and existential ideas.

The motivation for the research stems from three interlinked areas which the paper here aims to make explicit in three sections. Broadly, what unfolds is the groundwork for a Sartrean input to Critical Systems Thinking in order to addresss three of its concerns: critical awareness, social awareness, and human emancipation.

Section 2 shows how, in examining the gestation period of Critical Systems Thinking, one finds hidden, within the arguments surrounding Soft Systems Thinking's search for sociological underpinnings, a justification for Critical Systems Thinking's embrace of diverse inputs which began with Critical Theory and Habermas. A main conclusion is that any diversity must have one thing in common: it must not violate systemicity.

The Habermasian incorporation in the gestation period leads to an examination, in Section 3, of this initial incorporation in informing Critical Systems Thinking. One finds that a question which directly leads Critical Systems Thinking to consider critical awareness, social awareness, and human emancipation remains unanswered. An answer is provided, but this answer comes from an as yet untapped source in the field, the work of Jean-Paul Sartre.

The appearance of Sartre in addressing what is deemed to be an important question begs the further question of whether he can inform Critical Systems Thinking without violating systemicity. A return to von Bertalanffy, in Section 4, shows that a reading of his philosophical deliberations paves the way for an input from Sartre, first through the phenomenological tradition and then through its existential variant. In the process, the systemic nature of both Sartre's approach and ethical concerns is touched upon. Therefore no systemic violation results.

2. A JUSTIFICATION

The gestation of Critical Systems Thinking begins in Mingers' attempt to ground Soft Systems Methodology within an appropriate social theory—an attempt explicitly supported by Checkland who "sees [his] methodology as compatible with Churchman's analysis of "inquiring systems" (Mingers, 1980; Churchman, 1971). This desire to complement Soft Systems Thinking (in general) with a social theory is echoed by Jackson (1982) and both come in the wake of other similar attempts (Prevost, 1976; Checkland, 1978; Naughton, 1979a; Thomas and Lockett, 1979).

Jackson (1982), in particular, makes it clear that the interest in informing Soft Systems Thinking through social science spurns from Vickers' (1978) claim that professions which manage human systems lack support from the social sciences. In disagreeing with Vickers, Jackson claims that there is a mass of relevant theory in the social sciences, although it is in need of being sorted out, and couples this with the assertion that it is to the social sciences which the professions that manage human systems, and systems practitioners, must turn for the theoretical guidance needed. The claim that the area of concentration should lie within the social sciences is made with no obvious consideration for the theoretical support which may be provided through General System Theory itself. Instead, Jackson takes at face value the claims put forward by Naughton (1979b) that General System Theory does not seem likely to provide the necessary theoretical support. When it comes to informing Critical Systems Thinking, the research here does not agree.

Like Jackson after him, Mingers (1980) also bypasses the philosophical deliberations in General System Theory as building blocks of a critical systems thinking. Admittedly, Mingers' was an attempt to ground Soft Systems Thinking in an appropriate social theory, and not to found a critical systems thinking per se. However, in following past attempts to ground Soft Systems Thinking in an appropriate social theory and in proposing a Habermasian input, he inadvertently paves the way for the Critical Systems Thinking, which will subsequently be carried forward by Jackson in 1982. This is traced below.

Mingers' Habermasian argument is supported through the use of Burrell and Morgan's typology of social science and through Checkland's delineation that

Soft Systems Methodology (and, implicitly, Soft Systems Thinking in general) spans two of the quadrants in the typology, one of which is also inhabited by Critical Theory—where the latter is shown as also being embraced by the former (Burrell and Morgan, 1979; Checkland, 1981a, pp. 280–281, 1981b).

This delineation leads one to consider that Dando and Bennett (1981) have mirrored three broad Operational Research/management scientific (OR/MS) paradigms with three equally broad sociological paradigms:

> The three paradigms suggested [for] O.R.—*official, reformist* and *revolutionary*—can
> be related to the *positivist, interpretive* and *critical* paradigms taken up in Sociology.

In the same paper the authors equate the revolutionary OR paradigm with the critical OR paradigm—making it clear that the terms are interchangeable—hence equating Critical Systems Thinking with revolutionary, Marxist-inspired agendas outlined in their argument.

Recall that Checkland and Mingers have placed Soft Systems Methodology in the Burrell and Morgan typology in such a fashion so that it embraces Critical Theory. Now consider the claim made by Thomas and Lockett (1979) that the critical/revolutionary stance:

> ... [identifies] with what [it sees] as the real interests of the working class, i.e. a
> transition to a socialist society whose creation in practice is in turn a validation of
> Marxist theory.)

This has also been quoted by Dando and Bennett as part of their argument. "By contrast," Dando and Bennett go on to say, "the soft systems scientists claim that, although they are not objective, their work is available to everyone." This is a rejection by the soft systems scientists of the Marxist-inspired critical/revolutionary stance, a rejection which Thomas and Lockett also highlight.

Hence the Burrell and Morgan delineation made by Checkland and Mingers remains dubious in its embrace of Critical Theory. At this point there are three options: Critical Theory may be ignored, it may be explored further within the Checkland/Mingers proposals, or it may be viewed as available as a foundation for a new branch of thought. Indeed, the latter option materialized.

The new concerns, which were to become identified as Critical Systems Thinking, found a relevant home in Critical Theory. There appeared no need to turn back toward von Bertalanffy to justify systemicity since systemicity existed in the Habermasian arguments which followed. But if systemicity could be found outside of von Bertalanffy, then that justified input from other external sources as long as they argued in systemic terms. This enabled Critical Systems Thinking to embrace diverse inputs as long as a prime requirement, systemicity, was not violated. This simultaneously signaled the end of the search for foundations in this field, although, as discussed earlier, the signal was still being ignored in 1996

within the literature. The Habermasian input became just one of the relevant inputs toward addressing the field's concerns.

3. A QUESTION

The Habermasian incorporation in the gestation period is now examined with the specific aim of highlighting an important unanswered question, to which an answer is given.

Mingers (1980) draws upon the similarities between Checkland's approach and Habermas. Checkland (1981a, p. 283) summarizes the three relevant points:

> In comparing Habermas's thought with soft systems methodology Mingers (1980) finds three major points of agreement. Firstly, both take seriously the problem of human action—at the same time purposive/rational (hence capable in principle of being engineered) and natural, or unchangeable, as a result of the characteristics of the human animal. Secondly, both conclude that hard systems analysis, tied to technical rationality, cannot cope adequately with the multivalued complexities of the real world. Finally, both deny the inevitability of the divorce between rationality and values which characterizes natural science, and both try to bring the two together in rational communicative interaction.

Jackson subsequently provides a critique of the Mingers/Checkland position by concentrating not on the similarities but on the differences—which critique is then rejected by Checkland (Jackson, 1982; Checkland, 1982). One may agree (or not) with Checkland's reply on the nature of Soft Systems Methodology and on his comments regarding the *Weltanschauung* concept. A most significant question posed by him, however, is traced below and an answer is provided.

In order to answer Checkland's question, some detailed attention is required in Jackson's (1982) argument which attempts to rupture the Critical Theory-Soft Systems Thinking connection and lay the foundations of a Critical Systems Thinking which dislodges itself paradigmatically from Soft Systems Thinking:

> Mingers and Checkland seem to believe that the major difference between soft systems methodology and critical theory is the latter's overt political stance. . . . But this is not the case. The major difference is theoretical. Habermas recognises that though the social world is created by man, it is not "transparent" to him. It escapes him, takes on objective features and constrains him. Man is still in the grip of unconscious forces and his actions still have unintended consequences ... there is [a] need for a critical moment (corresponding to an 'emancipatory interest').

Checkland (1982) replies,

> The reader may feel it significant that when Jackson writes of Habermas's view that the social world takes on constraining objective features, man being "in the grip of unconscious forces", he writes not that Habermas *believes* this to be the case but that he "recognises" it.

Why is it that Habermas can claim to *recognize* the opaqueness of the social world? Checkland asserts that such a statement can be a statement of belief and not of perceived fact. As such, a particular *weltanschauung* is at work here, which has not been made explicit by Jackson. Instead of informing his critics about Habermas' worldview, Jackson (1983) opts for informing them of his own *weltanschauung*:

> For myself, I am prepared to view the social world through the radical sociological paradigms identified by Burrell and Morgan and to see what I can learn about it by doing so. It seems that social systems can sometimes escape the understanding and control of the individuals who, in interacting one with another, create them. They can therefore exhibit 'objective' characteristics.

Jackson's reply is relevant to the subsequent development of Habermasian Critical Systems Thinking but Checkland is still left wanting a reply; the question refers to Habermas and remains unanswered. Moreover, even if Jackson's own *weltanschauung* is accepted as mirroring that of Habermas, more is required in order to explain its validity. Indeed, a philosophical justification is required, one which allows for "a proper understanding of, and fidelity to, the distinctive character of individual human existence" (Cooper, 1999, p. 36): a character of alienation from the world. In a word, one which examines the very condition of Being. Habermas' recognition that the social world takes on objective features and constrains man mirrors a *weltanschauung*, which is made explicit by Sartre. This *weltanschauung* states that, although situations in themselves may appear to make us impotent,

> the coefficient of adversity in things can not be an argument against our freedom, for it is by us—i.e., by the preliminary positing of an end—that this coefficient of adversity arises [and] although brute things can from the start limit our freedom of action, it is our freedom itself which must first constitute the framework, the technique, and the ends in relation to which they will manifest themselves as limits. (Sartre, 1995, p. 482)

In summary, Checkland raises the issue of Habermas' *weltanschauung*, a point side-stepped by Jackson but a point which is all important in validating the Habermasian input in Critical Systems Thinking. The point is answered through Sartre and it begs the question: If Sartre can answer this issue, how else can he inform Critical Systems Thinking? *For it is this issue, this weltanschauung, which directly leads Critical Systems Thinking to consider critical awareness, social awareness, and human emancipation.*

At this point the appearance of Sartre in providing what is deemed to be an important answer raises the further question of whether he can inform Critical Systems Thinking *without violating systemicity*. There are two options available: either examine Sartre's philosophy for systemic arguments or return to von Bertalanffy in order to see whether a Sartrean connection can be made

through the original General System Theory. If either option provides an affirmative answer, there is no violation of systemicity. In the next section the second option is chosen, whereby a reading of von Bertalanffy paves the way for an input from Sartre, first through the phenomenological tradition and then through its existential variant. In the process, the systemic structure of Sartre's work and of some samples of his arguments are highlighted.

4. A RETURN TO VON BERTALANFFY

von Bertalanffy's (1968) *philosophical* arguments can be located within a wider philosophical movement, that of the phenomenological tradition. It is the phenomenologically inclined indications and rhetoric in his work on which this research focuses. It is believed that through them a case can be made for addressing the concerns of Critical Systems Thinking—in particular, the stress on critical awareness, social awareness, and human emancipation—in a way in which von Bertalanffy hinted and which can substantially be developed through work done in the phenomenological tradition. Critical Systems Thinking is a philosophically inclined movement—it is to von Bertalanffy's philosophical deliberations to which one must turn.

A brief overview of the analytical and phenomenological philosophical traditions begins clearing the way for an exposition of von Bertalanffy's phenomenological sympathies and their consequences for the groundwork unfolding in this paper.

4.1. Overview of Analytic and Phenomenological Philosophies

To begin with, the common ground between both analytic and phenomenological philosophy is that they take an anti-Kantian stance. Although they agree with Kant that human experience is limited to phenomena—that is, things appearing to consciousness and existing for consciousness—they reject that objects thus experienced are constructs of consciousness or constructed by consciousness. Since objects exist for consciousness, both traditions follow Brentano's reasoning in concluding that consciousness is transparent. This led the analytical philosophers to ignore consciousness altogether, since there was nothing *in there* on which to focus, and attend instead on its objects. As Jones and Fogelin (1997, p. 274) point out,

> This point of view—that consciousness can safely be ignored—was reinforced later on by a behaviorism that, starting from James, sanctioned by Russell, and supported by the positivists' Verifiability Principle, maintained that sentences about inner states can be eliminated without loss of meaning and replaced by sentences about bodily states.

The analytical philosophers were accused by the phenomenologists of blindness in assuming that the world is made up of only "encapsulated simple items" (Jones and Fogelin, 1997, p. 274). The phenomenologists regarded the transparency of consciousness—its intentional nature as *direction* and not as *state*—as the primary reason for attending to consciousness. Against the reductionism of the analytical tradition where explanation consists in the analysis of complexes into their parts, and hence the view that the world is made up of only encapsulated simple entities, phenomenology was directed toward the interconnectedness of things—"for [phenomenologists] experience was a river, not a collection of loose and separate sense data" (Jones and Fogelin, 1997, p. 274). In a word, the phenomenologists, whilst retaining a scientific attitude, rejected a physicalist and natural reduction of phenomena which was reflected in the largely epistemological and logical concerns of the analytic philosophers who took their cue from the British empiricists:

> For the most part they were either epistemologists or logicians, and they were not much interested (apparently) in humanity's existential, or moral, relation to the aseptic world disclosed by physics. Thus Russell held that "when we assert that this or that has 'value,' we are giving expression to our own emotions." The phenomenologists were unwilling to write off as "subjective" the experiential world of lovely, hateful, enduring, and transitory things; hence, they took their stand on this experiential world—our "life-world," as they called it. (Jones and Fogelin, 1997, pp. 274–275)

This is why Levinas could claim that Husserl and phenomenology were primarily concentrated in ontology and took pains to clarify Husserl's critique of naturalism, his *regional ontologies* and their implied interconnections (Levinas, 1998)—although Levinas himself was later to move toward a primacy of ethics in philosophy.

4.2. The Common Ground with von Bertalanffy

It is at this point that one begins to find the common ground between von Bertalanffy's system theory and phenomenology—both take an antireductionist stance in viewing the world as dynamically interlocked systems. von Bertalanffy (1968, p. xxii) shows his phenomenological sympathies when discussing systems epistemology:

> [Systems epistemology] is profoundly different from the epistemology of logical positivism or empiricism even though it shares their scientific attitude. The epistemology (and metaphysics) of logical positivism was determined by the ideas of physicalism, atomism, and the "camera-theory" of knowledge. These, in view of present-day knowledge, are obsolete. As against physicalism and reductionism, the problems and modes of thought occurring in the biological, behavioral and social sciences require equal consideration and simple "reduction" to the elementary particles and conventional laws of physics does not appear feasible. Compared to the analytical procedure

of classical science with resolution into component elements and one-way or linear
causality as basic category, the investigation of organized wholes of many variables
requires new categories of interaction, transaction, organization, teleology, etc., with
many problems arising for epistemology, mathematical models and techniques. Fur-
thermore, perception is not a reflection of "real things" (whatever their metaphysical
status), and knowledge not a simple approximation to "truth" or "reality." It is an
interaction between knower and known. . . .

First, despite not informing his readers to what "present-day knowledge,"
he refers, the stress on coupling problems *and* modes of thought about prob-
lems reflects von Bertalanffy's sympathy with the phenomenological view that
consciousness cannot be ignored. His rejection of one-way causality shares the
phenomenological view of the presence of past experiences *as well as* antici-
pated future ones in any here-and-now. His appeal for new linguistic categories
also reflects his concern with the linguistic pruning undertaken by the analytic
philosophers in their search for clarity. He sides with phenomenologists in sup-
porting clarity through new terminology, perhaps complex and elaborate but,
without doubt, necessary. It is, moreover, in his last two statements that he aligns
himself with phenomenology, for his discussion of perception and knowledge
mirrors the particular anti-Kantian stance of phenomenology discussed earlier.
The statements also imply von Bertalanffy's belief in the attainment of certainty,
a need which motivated Husserl's philosophical investigations and which both
men believed to lie in the interfusion of knower and known or consciousness
and its object. von Bertalanffy (1968, p. xxii) concludes immediately later that
he embraces a "perspective" philosophy (or, more accurately, outlook) in which
science is but "one of the 'perspectives' man ... has created to deal with the uni-
verse he is 'thrown in.'" Along with the use of the phenomenological "thrown
in," von Bertalanffy is in line with Husserl's discussion about the problems of
naturalism, which led the latter to develop his intuition of essences, considering
these as being the "principle" of natural laws (Levinas, 1998, p. 113).

von Bertalanffy began to develop his system theory in the 1920s, a time
marked by Husserl's influence within philosophy. In parallel to Husserl's search
for "principles," von Bertalanffy (1968, p. xix) maintained, in his outline of a
systems science, that there existed a priori systemic structures applicable to a
wide range of phenomena—"a doctrine of principles applying to all (or sub-
classes of) systems"—which consisted of isomorphisms and correspondences
common to all. Although he makes no explicit reference to Husserl or phe-
nomenological influences, a reading of his worldview shows that he must have
felt the same "European Crisis" that Husserl (1997) felt and that he was undoubt-
edly influenced by the phenomenological critique of contemporary thought.

It should be noted that the span of time during which von Bertalanffy
wrote about system theory, that is, between the 1920s and the 1960s, coincided
with an extraordinarily rich period in French philosophical writing, with France

becoming the bastion of phenomenological research and exercising international influence in philosophical circles. von Bertalanffy must have been aware of this development, and indeed, his writings reflect similar ideas to those that emerged from France during this period. As an example, consider von Bertalanffy's (1968, p. 220) view of the Cartesian cogito when discussing the applicability of system theory in psychology:

> The *Cartesian dualism* between matter and mind, objects outside and ego inside, brain and consciousness, and so forth, is incorrect both in the light of direct phenomenological experience and of modern research in various fields; it is a conceptualization stemming from 17th-century physics which, even though still prevailing in modern debates is obsolete.

von Bertalanffy, though again failing to mention what "modern research" he had in mind, mirrors Sartre's "direct phenomenological" conclusions from the latter's analysis in *The Transcendence of the Ego* (Sartre, 1998)—von Bertalanffy does not align himself with Husserl, for instance, since Husserl fell back on an internal ego.

What is common to Husserl and Sartre is that they are two philosophers for whom ontology is primary. Above, it was mentioned that the philosophical justification for Habermas' *weltanschauung* demands an investigation into the very condition of Being, implying that ontology is relevant in the discussion. The introduction of Sartre introduced a phenomenological ontologist concerned with Being. Von Bertalanffy sympathizes with two ontological philosophers. Can a case be made, therefore, for an ontological primacy when addressing the concerns of Critical Systems Thinking if one is to inform them through von Bertalanffy's philosophical deliberations?

4.3. The Case for an Ontological Primacy

For von Bertalanffy, systems ontology is "what is meant by 'system' and how systems are realized at the various levels of the world of observation" (von Bertalanffy, 1968, p. xxi). Similarly, ontology in philosophy is the study of the meaning of Being (Levinas, 1998, p. liv). So systems ontology is the study of the meaning of systems, and paraphrasing Levinas (1998, p. liv) in his exposition of Husserl's view, this research holds that "the science of the meaning of [systems] is not identical to the knowledge of the properties of [systems], that the science of the meaning of [systems] has a special status, and it is in some way a priori inasmuch as it is presupposed by the knowledge of the properties of [systems]." The primacy of ontology is explained by Levinas (1998, p. 114) as follows:

> Once being has been defined by the ontological sciences, factual sciences can ask reasonable questions about it. Then, but only then, is it possible to experiment. By itself, induction can generate only inductive necessity and not ontological necessity. To ask

inductive questions, to know what type of experience is required by a given domain
of objects, we must first determine its ontological sense. According to Husserl, the
fact that Galileo saw the ontology of nature in the geometry and mathematics elabo-
rated in antiquity has made possible the great progress of modern physics. The great
mistake of other sciences—psychology, for example—is to see, in the ontology of
nature the ontology of all regions, or else reject all ontology. It is therefore neces-
sary, at least to contribute to the progress of sciences, to establish the ontologies of
all the regions of objects.

von Bertalanffy indicates that he does agree with Husserl that ontology is
regional since he does make distinctions between real systems, conceptual sys-
tems and abstracted systems, implying in his argument the Husserlian view that
the different regions have different ontologies which require elucidation (von
Bertalanffy, 1968, pp. xxi–xxii; Levinas, 1998). He also indicates his agreement
on a primacy of systems ontology over systems epistemology or systems ethics
[the latter he calls "the relations of man and world or what is termed "values""
(von Bertalanffy, 1968, p. xxii)]. This can be seen through the structure of von
Bertalanffy's own argument *as well as* in his discussion on the nature of open
and closed systems.

Looking first at the structure of von Bertalanffy's argument, he calls "val-
ues" the "humanistic concern of general system theory," being the branch of
system theory which is evaded by "mechanistically oriented system theorists,"
who "[give] rise to the fear that system theory is indeed the ultimate step towards
mechanization and devaluation of man and towards technocratic society" (von
Bertalanffy, 1968, p. xxiii). He does "not see that these humanistic aspects can
be evaded if general system theory is not limited to a restricted and fractional
vision" (von Bertalanffy, 1968, p. xxiii). These ethics are based on a conception
of reality as hierarchies of organized wholes—that is, an ontological viewpoint
mirroring regional ontologies like Levinas' Husserl. Hence one is able to con-
clude that the foundation of von Bertalanffy's ethics is an a priori ontological
viewpoint—this is implied in his argument.

Second, von Bertalanffy indicates his agreement on a primacy of systems
ontology when discussing the nature of open and closed systems. The feedback
scheme is of a special nature, von Bertalanffy (1968, p. 44) says. It presupposes
structural arrangements, similar to those of a closed system. Many regulations are
of a different nature, however, where order is effectuated by a dynamic interplay of
processes. If these dynamic interplays are seen as primary for open systems, a sec-
ondary set of processes exists whereby order is maintained through the feedback-
type structure, a structure of fixed arrangements. A general principle of organiza-
tion (what von Bertalanffy calls "progressive mechanization") states that, at first,
systems are governed by a dynamic interaction of their components and, later, fixed
arrangements and conditions of constraint are put into play which render the sys-
tem and its parts more efficient. Dynamics is the broader aspect—one can always

arrive from general system laws to machine-like function by introducing suitable conditions of constraint, but the opposite is not possible.

That one can always arrive from general system laws to machine-like function by introducing suitable conditions of constraint mirrors a phenomenological–ontological approach, especially used by Sartre in first seeking to elucidate the general aspects of Being and then, given those, seeking to create suitable conditions of constraint (or, in other words, conditions which would allow mutual, civilized existence such as ethics and guiding principles). One cannot arrive at general system laws from the conditions of constraint. Similarly, one cannot understand Being from ethics, from imagining what life would be without them. One has to first understand life without them and then forge an ethics which matches, or is desired for, the condition of Being. Ethics work in the same way as von Bertalanffy states above: they have been put into place after a primary dynamic interaction, that is, after an ontological investigation; the structure of Sartre's work unfolds in similar systemic fashion.

The case for an ontological primacy has been made and has been shown to be systemic if one is to follow von Bertalanffy in addressing the concerns of critical and social awareness and human emancipation. What is needed, therefore, is input based on an ontological work. Sartre earlier provided an answer to an important question. In this section he has also been shown to follow von Bertalanffy's ontological primacy, first, as a phenomenological ontologist and, second, due to the unfolding structure of his oeuvre. In particular, Sartre used ontology in order to derive ethics—an approach reflecting von Bertalanffy in two ways: first, in that the foundation of von Bertalanffy's ethics is an a priori ontological viewpoint and, second, in the conclusions drawn above from his insight into the relationship between open and closed systems. The discussion has touched upon ethics and a word on their importance and relevance is therefore required.

4.4. A Word on Ethics

von Bertalanffy provides little in the way of a discussion on ethics in system theory. He is much clearer, as shown above, on his agreement of an ethics from ontology. The research here views ethics as a key area which must inform Critical Systems Thinking, for it maintains that any decision taken has ethical undercurrents and implications and can therefore be viewed as an ethical decision. The question of ethics cannot be avoided and the terms decision and ethics may be used interchangeably as far as the research is concerned. This is in line with Flood and Ulrich's (1990) view in their discussion of ends and means:

> [The] underlying means-end dichotomy is epistemologically untenable. Counter to
> what the eminent German sociologist Max Weber (1949) assumed in his decisionistic

model of the relation of science (theory) to politics (practice), decisions on means cannot be kept free of normative implications by referring all value judgements as the choice of ends; for what matters is not the value judgements that an inquirer consciously makes (or not) but the life-practical consequences of his propositions (regardless of whether they concern "means" or "ends") for those affected.

There is, therefore, a relevance in equating decisions with ethics. It is not one abstracted decision that counts but its systemic effect. Detailed insights into this issue are already available in the literature (Midgley, 1992, 1999; Midgley *et al.*, 1998; Ormerod, 1999) and have developed from the work of Churchman and Ulrich (Churchman, 1968a,b, 1970, 1971, 1979; Ulrich, 1983, 1988a,b, 1994, 1996).

von Bertalanffy's failure to elucidate his system ethics does not, however, signal a dead-end. His sympathy to phenomenology and the primacy he places on ontology already provide the path required directly into Sartre. For it was Sartre who grappled with the problems of elucidating ethics from ontology. Moreover, Sartre (1995, pp. 3–4) was not an abstract theoretician and von Bertalanffy's echo can be heard between the lines:

> ... It is not profitable first to separate the two terms of a relation in order to try to join them together again later. The relation is a synthesis. Consequently the *results* of analysis can not be covered over again by the *moments* of this synthesis ... an abstraction is made when something not capable of existing in isolation is thought of as in an isolated state. The concrete by contrast is a totality ... The relation of the regions of being is an original emergence and is a part of the very structure of these beings.

Sartre desired a systemic ethics; he shared *exactly* the same concern as Flood and Ulrich above. He called this concern a "paradox" in ethics and explained:

> [If] I am absorbed in treating a few persons as absolute ends, for example, my wife, my son, my friends, the needy person I happen to come across, if I am bent upon fulfilling all my duties towards them, I shall spend my life doing so; I shall be led *to pass over in silence* the injustices of the age, the class struggle, colonialism, Anti-Semitism, etc., and, finally, to *take advantage of oppression in order to do good.* Moreover, the former will be found in person-to-person relationships and, more subtly, in my very intentions. The good that I try to do will be vitiated at the roots. It will be turned into radical evil. But, vice-versa, if I throw myself in to the revolutionary enterprise I risk having no more leisure for personal relations—worse still, of being led by the logic of the action into treating most men, and even my friends, as means. (Sartre, 1993)

In these few sentences one finds the foundation of Sartre's extensive writings on this issue, notably (but not exclusively) his *Notebooks for an Ethics* (1992). Churchman (1974) himself, it may be said, understood the "paradox": witness his examples of cigarette and arms manufacturers, as well as his dis-

cussion of Henry Ford (Churchman, 1979; Ulrich, 1988b). Midgley (1992) also examines it with a further discussion on boundary judgments. Critical Systems Thinking is therefore familiar with the nature of such arguments and a Sartrean input may do more than merely complement them. All such considerations, however, are for future papers.

5. CONCLUSION

In summary, a groundwork for a Sartrean input to Critical Systems Thinking has been laid, in particular to inform the three specific concerns of social awareness, critical awareness, and human emancipation. Disagreeing with a foundationalist pursuit in Critical Systems Thinking and questioning the bypassing of von Bertalanffy in this field, the paper argued, in three sections, that a Sartrean input may prove to be valuable. First, systemicity was highlighted as the common denominator in the use of divergent philosophical sources. Second, Sartre provided an answer to a question which directly addresses the three concerns. Third, a return to von Bertalanffy led to Sartre being recognized as a systemic philosopher both in the structure of his work and in his arguments, with samples of the latter included not only to illustrate this but also to further the complete argument of the paper. The discussion also highlighted an approach which favored ontological primacy if one is to use the groundwork here in addressing the concerns of Critical Systems Thinking—a primacy shared by Sartre as well as von Bertalanffy. This led to a brief mention of the importance of ontologically generated ethics in this research.

The exposition of the link between von Bertalanffy and Sartre is far from finished. One could, given the arguments thus far, leave von Bertalanffy and concentrate on a pure Sartrean input to Critical Systems Thinking. This would, however, leave behind an additional richness of commonality between the two men which includes similar views in psychology and personality theory, in the notion of two-way causality, in the concept of spontaneity, and in the paucity of Kant's Categorical Imperative—to name but four. It would further situate Sartre not only as a systemic philosopher but also as one who may be situated within von Bertalanffy's own writings. A dual approach is therefore favored, at least initially. It must be said, though, that von Bertalanffy did not provide complete expositions of his philosophical views. In this respect, a Sartrean input further elaborates and extends von Bertalanffy's deliberations. All this will form the subject of future papers.

A return to the question of ethics may, however, serve as an interesting final thought, for it is arguably the key underlying concern for all researchers in Critical Systems Thinking. Cooper (1999) provides a most relevant example for the purposes here which is summarised below.

Cooper refers to Sartre's paradigm of authentic human intercourse as out-

lined in the latter's *What Is Literature?*—that is, the relationship between the committed writer and his readers (Cooper, 1999, p. 188; Sartre, 1993). Echoing J. S. Mill, Sartre maintains that the writer writes in an open and honest way, appealing for an informed interchange of views. A mutual freedom can therefore rise between him and his reader. The criticism against this—from structuralists and critical theorists, for instance—is that this authenticity is impossible due to the systematic distortion of communication: a criticism which, incidentally, agrees with Sartre that authenticity requires transparent communication. If one subscribes to this point of view, then one realizes that one may be not only the product of distorted communication, but also the recipient of such. Thus, Cooper (1999, p. 189) says, "The person who regards himself as engaged in distorted communication can have no confidence as to what speakers, including himself, are 'realizing' and 'accomplishing.'" He concludes,

> The ethical implication for a person who so conceives the character of communication is that he should work towards the construction of what Habermas calls 'ideal speech situations': conditions under which men can speak with one another without distortion, intervention and hidden agendas; conditions, that is, under which a person can view the language he speaks and hears as one through which he can really exercise the capacities of existential freedom. It is just this towards which Sartre envisages the 'serious' author to be working.

There is evidence, then, that similarities exist between Sartre and Habermas which have not been considered thus far in Critical Systems Thinking. A Sartrean input cannot be ignored if the concerns of this Systems field are to be addressed in the fullest way possible. An appreciation is required of the fact that delving into French existential phenomenology necessarily requires one to recognise that philosophical works take different forms. After all, *What Is Literature?* is a treatise on literature—undeniably philosophical, but still in the realm of literature. Cooper hints above that careful study yields valuable input. There appears to be a "mass of relevant theory" (Jackson, 1982) which awaits. This paper has laid the groundwork for the enterprise.

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