

# **DEVELOPING A SYSTEMIC FRAMEWORK FOR EVALUATION MODELS AND THEIR APPLICATIONS**

**Maria Alejandra Torres-Cuello & Luis Arturo Pinzon-Salcedo**  
ma.torres133@uniandes.edu.co, lpinzon@uniandes.edu.co

## **ABSTRACT**

The following paper presents the development of a systemic framework for the mapping of evaluation models, based on the reflective process that takes place when selecting an evaluation model and the study of processes of marginalization. For such purposes, several classifications proposed by various authors for systemic methodologies are taken into account. We should begin by stressing the importance of the concept of assessment or evaluation as it allows us to make judgements about the performance of organizations, projects, programs, staff and activities at different levels enabling the implementation of activities or actions to reduce the gap between the current state of a system and its desired state. These activities not only seek a gap reduction but are also oriented to process and human group sustainability through the achievement of best practices that will bring benefits in the long term. When selecting an evaluation model, the evaluator is usually based on the best-known features, such as the methods used, the research questions that it follows, and the kind of problems that could be targeted. However, as evaluation is entirely based on judgements, each assessment model necessarily has a set of underlying values that are rarely taken into account and should be aligned not only with the purpose for which the evaluation is done but also with the moral characterization of the problems it tackles. Such judgemental nature implies that any judgement must be based on a set of guiding principles, standards or ideals that determine the position of the object evaluated with respect to such values. An individual, which in this case is the evaluator, must carry out a reflective process to establish this set of elements. For this reason, this paper describes the development of a systemic framework that seeks to classify the various models of evaluation of projects, policies and programs according to the values underlying each of them considering their ethical bases. For the development of this framework we took into account the framework for the classification of systemic methodologies proposed by authors such as Burrell & Morgan, as well as the theory of “knowledge-constitutive interests” proposed by Jürgen Habermas and the context classification of a problem. The development of such a classification allows the individual that is conducting the evaluation to be able to select an appropriate and accurate methodology in accordance with the purpose for which the assessment will be carried out.

Keywords: reflexivity; marginalization; evaluation; framework; values; critical systems thinking

# Critical Systems Thinking and Evaluation

## INTRODUCTION

Evaluation takes place in multiple activities, ranging from simple daily life decisions such as choosing between meal options or what to wear to more complex decisions such as making an assessment of processes and outcomes of an organization or program. Evaluation methodologies developed rapidly during the 20th century when the need to apply social research methods to program evaluation grew alongside burgeoning social programs (Rossi et al., 1999). There are multiple evaluation definitions and applications, but the following article will focus on program evaluation. Among the extensive program evaluation literature, are the evaluation models which stipulate the question that a given type of evaluation seeks to answer, as well as specifies how to set up the criteria for assessment (Hansen, 2005). This statement, highlights the importance of making a good evaluation model selection, as this will determine the direction an evaluative process will take and the consistency of the questions raised by the selected model and the ones originally stated by the evaluator.

There are multiple criteria that could be taken into account when making a model selection, such as the purpose, the characteristics of the object of evaluation, the context, the problem to be solved by the evaluated object, the stakeholders and so on. This represents a challenge as there are multiple perspectives in which this selection can be made as we do not only have a wide range of selection criteria, but also multiple perspectives represented by different types of stakeholders. For this reason, the following paper presents the development of a systemic framework for the mapping of evaluation models, taking into account the reflective processes that take place to make this choice, as we will show, multiple stakeholders are likely to get involved in the decision making process, which leads to the appearance of a wide range of values, ideas, principles and interests represented by multiple worldviews. Taking this into account, and considering that social program evaluation is a field of applied social inquiry uniquely distinguished by the explicit value dimensions of its knowledge claims, by the overt political character of its context, and by the inevitable pluralism and polyvocality of its actors (Greene in Kenny, 2007), we develop a framework that seeks to facilitate this decision making process. In order to do so, we propose a bidimensional framework relating the Critical Theory, more precisely the work of Jürgen Habermas Knowledge Constitutive Interests approach, that emerged as a response to the absoluteness of science (Kenny, 2007), and an adaptation of the Sociological Paradigms proposed by Burrell & Morgan. On the other hand, we also incorporate Critical System thinking principles in the evaluation process analysis as reflexivity and boundary judgment processes need to take place.

This development seeks to become a facilitator in decision making processes regarding program evaluation model selection as its goal is to give an insight of the main assumptions behind each model. In order to do so, first we present a theoretical review of the concepts related to each one of the topic previously described that will be particularly relevant for the development of this article, namely; an insight of Evaluation Theory, the Critical Systems Thinking main tenants, the interests that constitute the Knowledge Constitutive Interests and the four paradigms that constitute the Sociological Paradigms. After, we will describe the framework development, its assumptions and give an example

## **Critical Systems Thinking and Evaluation**

of a model classification. Finally, we will outline the relevance and practical application of the framework.

### **THEORETICAL BACKGROUND**

The following section makes a brief description of the theoretical tools used in the development of the framework. Starting with an overview of the evaluation theory and most relevant concepts related to evaluation models, moving on to the Critical Systems Thinking and its main tenants and finally illustrating the distinctions made by Habermas and Burrell & Morgan regarding their interests and paradigm theories respectively.

#### **Evaluation**

The American Evaluation Association (2014) defines the concept of evaluation as a systematic process to determine merit, worth, value or significance. This process can take place in many daily life activities with different levels of complexity and multiple purposes. In an organizational level, it is commonly oriented to personal, process, output and program evaluation, in the following paper we will focus only in the latter. Particularly, when talking about program, project and policy evaluation we refer to the use of research methods to systematically investigate the effectiveness of social intervention programs adapted to the political and organizational environment surrounding it (Rossi, Lipsey & Freeman, 2004). Stufflebeam & Shinkfield (2007) define the evaluation root term as "value" denoting that it essentially involves valorative judgments and therefore an evaluative process cannot be value-free but instead should be based on a set of principles, ideals or standards that determine the position of the object evaluated with respect to such values.

The purposes or objectives of an evaluation process can be considered as specific and general so that the achievement of specific objectives contribute to the accomplishment of the higher target. Mark et al (2000) state that the ultimate goal of an evaluation process regardless of the specific purposes is social improvement and social betterment to which the evaluation contributes by assisting democratic institutions to select, enhance, monitor and understand programs and policies. This definition goes hand in hand with that proposed by Weiss (1998) since it also states that the evaluator expects improvements in the program due to their work aside of the purpose of the assessment as a contribution to the improvement of a program or policy. On the other hand, Povasac & Carey (2007) state that the ultimate goal of the activities associated with the evaluation of a program is to contribute to the provision of quality services for people in need through feedback on the activities and outcomes of programs. Thus, the definition presented by the three authors is associated with what is called a social improvement and social betterment.

Mark et al (2000) define social improvement and social betterment as reducing or preventing social problems, improving social conditions and alleviating human suffering. Without the existence of social improvement, there is no defensible justification to carry out the evaluation of programs and policies or even social programs and policies at all (Covert, 1995; Henry & Julnes, 1998 in Hansen 2005). But while purposes should be associated with this improvement, as an evaluative process is subject to the context in

## **Critical Systems Thinking and Evaluation**

which it operates, there are political factors, power and hidden agendas that could divert the usefulness of the process that takes place.

There is a wide variety of tools available to conduct evaluations. One of these tools are evaluation models, they stipulate the question that a given type of evaluation seeks to answer, as well as specifies how to set up the criteria for assessment (Hansen, 2005). Authors such as Cameron (1986), Scriven (2003) and Vedung (1997) in Hansen (2005), identify and classify eleven evaluation models in six general categories: result models; explanatory process models; system models; economic models; actor models and program theory models according to the questions they intend to give answers to and the criteria of evaluation they use. On the other hand, authors such as Stufflebeam & Shinkfield (2007) identify twenty six models divided in five categories, namely: quasi-evaluations; improvement and accountability approaches; social agenda and advocacy approaches; eclectic approaches and pseudo evaluations. In this case, pseudo evaluations cannot be presented as false evaluations as they fail to produce and report a merit and worth adequate valuation to all the audiences represented in an evaluation process. Their implementation is motivated by political objectives so they can be used by the evaluator or the person that commissioned the evaluation to divert the attention or to keep an advantage over other stakeholders with less power.

As can be seen, different authors present and classify models in a wide variety of categories. We will work with the most popular evaluation models that also are common to all the previously mentioned authors in order to focus the attention on the development of the framework presented in this paper and not in the selection of specific evaluations models. For further information regarding evaluations categories and models, the reader can refer to other authors mentioned in this section.

### **Critical Systems Thinking**

Critical Systems Thinking constitutes one of the three main Systems Thinking currents, as it was developed in the late 1980's and 1990's as an alternative for the soft and hard approaches that existed in the time. It embraces a set of fundamental commitments. According to Midgley in Flood & Romm (1996), authors such as Flood & Jackson (1991) and Schecter (1991) identify three commitments. These are; critical awareness, emancipation and methodological pluralism. We explain these themes and introduce the notion of boundary critique in this article.

There are three forms of critical awareness, namely; the understanding of the strengths and weaknesses and the theoretical underpinnings of available systems methods, techniques and methodologies, the understanding of both the context of application and the possible consequences of using various methodologies once the context has been defined, and closely examining the assumptions and values entering into actually existing systems designs or any proposals for a system design. In the development of this paper, we will take into account the last form of critical awareness, which is related to the subjacent values and assumptions of system designs, in this case being represented by the subjacent ideas, values and interests constituting the worldviews for choosing evaluation models.

## Critical Systems Thinking and Evaluation

Critique involves reflexivity on knowledge and its limits, as well as on the way we relate to others. It emphasises the importance of reflecting critically on systems boundaries (boundary critique), an activity that promotes our understanding of the ethical consequences of different possible actions (Midgley, 2002). Reflexivity implies uncovering and questioning the basic assumptions that we make and that inspire our practices. It demands questioning our preferred points of view (Flood and Romm, 1996), moral frameworks, actions, and practices. Reflexivity involves questioning the boundaries of knowledge (Midgley, 2000). An in this particular case, self-reflexivity implies uncovering and questioning our ways of thinking and behaving.

On the other hand, emancipation is taken in terms of human emancipation. Taking this into account, Critical System Thinking seeks to achieve for all individuals the maximum development of their potential by raising the quality of work and life in the organizations and societies in which they participate. The third commitment is methodological pluralism also known as complementarism. It makes explicit use of a metatheory to identify the strengths and weaknesses of different methodologies, and the methodologies are thereby viewed as complementary. As different methodologies make different assumptions, it is appropriate to use them in practice in a complementary fashion to deal with a variety of different problems.

Theoretical as well as methodological pluralism are considered relevant in CST. By changing boundaries we modify understandings and hence each boundary may insinuate a different theory. On the other hand, each theory favours some particular boundary judgements (Midgley, 2000). Because methods and methodologies incorporate different theoretical assumptions, methodological pluralism is also relevant. Decisions among theories indicate which methodological choices might be appropriate. In turn, methodological selections suggest different theoretical and boundary judgements.

Boundary judgments are judgments about what is to be included in, marginalised by or excluded from analysis and designs (Midgley 2000). The boundaries of a system are personal or social constructs that establish the limits of the knowledge and the people who should be considered pertinent in an analysis. According to Midgley (1992), where the boundaries of analysis are drawn affects the ethical stance taken and the values pursued. In brief, identifying systems boundaries determines *what* knowledge is considered relevant and who may propose that knowledge (Midgley 2000).

By excluding critique we may end up considering some systems boundaries as absolute and unquestionable. This may hamper the examination of potentially inappropriate assumptions and behaviours. Therefore, systems thinking should involve critique. Critique demands a reflection on the implications of adopting different alternative boundary judgments (Ulrich 1983, 2003; Midgley 1992). We assume that the way issues are perceived and what actions are taken depends on where boundaries are constructed and what moral frameworks guide that construction (Midgley, 1992, 2000). Choosing any specific system boundary affects the ethical stance taken (Ulrich, 1983; Midgley, 1992b). The latter also affects the selection of boundaries (see Figure 3.3). Hence, to select a boundary is an ethical choice.

## Critical Systems Thinking and Evaluation

### Knowledge Constitutive Interests

In 1971, Jurgen Habermas presented his Knowledge Constitutive Interests theory which aimed at providing a systematic framework for an interdisciplinary critical social theory through a methodological critique of the positivist dominant philosophy of the moment. This theory, tied the natural history of the human species and the imperatives of the socio cultural form of life but was not reducible to them. Instead, it was both pragmatic and pluralistic: pragmatic, inasmuch as human interests constitute knowledge; and pluralistic, in that different forms of inquiry and knowledge emerge from different core interests (Stanford Encyclopedia of Philosophy, 2014).

Here, the term interests refers to "the basic orientations rooted in specific fundamental conditions of the possible reproduction and self-constitution of the human species, namely work and interaction" (Habermas in Pinzon & Midgley, 2000). Work, is based on rational choices of efficient means, using forms of instrumental and strategic action that seek to maintain the status quo to achieve goals and bring material well-being. While interaction, is based on communicative action where actors coordinate their behavior on the basis of consensual norms, this requires the expansion of the possibilities for intersubjective understanding among those involved in social systems.

Habermas recognizes three interests that take form in the medium of work, language and power, oriented towards technical control, mutual understanding in the conduct of life and emancipation from seemingly natural constraints (Habermas, 1971). These interests are called technical, practical and emancipatory.

The technical interest refers to those aspects of knowledge and action which are concerned with manipulating the environment and ensuring successful action; it involves gaining and expanding control over natural objects and events (Scott, 1978), it is the knowledge constitutive interest of the empirical- analytic sciences and finds its foremost philosophical expression in positivism and critical rationalism (Ashley, 1981). Habermas considers work as instrumental action, rational action, or a combination of both. Instrumental action is guided by technical rules, which are derived from empirically grounded knowledge. This empirical effort is centred in the technical management of natural processes that have been objectivized (Habermas 1972 in Pinzon & Midgley, 2000).

The practical interest refers to those aspects of knowledge and action which are concerned with attaining and extending understanding and consensus in intersubjective relations so as to achieve community and mutuality (Scott, 1978). It guides knowledge toward the development of "interpretations that make possible the orientations of action within common traditions (Habermas 1971 in Ashley, 1981)." It has its genesis in human interaction and communication brought about through the employment of symbols. Communicative action is a symbolically mediated interaction, oriented according to norms that are intersubjectively negotiated, and that specify reciprocal expectations of behavior (Habermas, 1994 in Pinzon & Midgley, 2000).

The emancipatory interest is concern with freeing men from constraints imposed by power relations and in learning through a process of self-reflection to control their own

## Critical Systems Thinking and Evaluation

destinies (Flood & Jackson, 1991). Whereas the technical and practical interests are 'primary forms of cognitive world constitution', the emancipatory interest is a derivative, 'meta-interest'. It is derivative in the sense that it is linked with derivative types of action: exploitation and systematically distorted communication; that is, it relates to situations where the various sub-systems of a society are structured in ways which cannot be rationally grounded (Scott, 1978). It is rooted in the human capacities for the communicative exercise of reflective reason in light of needs, knowledge, and rules; it guides knowledge to achieve human autonomy and self-understanding by bringing to consciousness previously unapprehended determinants of the human species' "self-formative process (Ashley, 1981)."

### Sociological Paradigms and Post-modernism

Burrell and Morgan developed a set of four sociological paradigms based on assumptions regarding the nature of social sciences related to social reality and the nature of society.

According to Flood & Jackson (1991), this social reality is dually seen from an objective and a subjective point of view. When taking into account the objective view assumptions, social reality is perceived as having a hard objective existence external to the individual, namely a realist ontology, where human behaviour is determined by external circumstances following a deterministic approach. This perspective seeks to establish positivist regularities and causal relationships of the social world by using quantitative analyses as scientific tests as techniques for acquiring knowledge. On the other hand, the subjective view assumptions perceive social reality as the product of individual shared consciousness and seeks to get knowledge by attempting to understand the point of view of the people involved in creating social reality, in order to so, getting as close as possible to the subject is one of the main goals of this view.

Regarding the assumptions about the nature of society, the authors present a dualism between regulation and radical change, seen as ethical dimensions. Regulation aims at understanding the status quo to maintain it in a society that seems to be consensual. As opposed to this view, radical change finds explanations for change in social systems looking beyond the status quo, where society is seen as being driven by contradictions and by structural conflict and where some benefit at expense of others and cohesion is reached by means of domination.

These assumptions concerning the nature of society and social reality constitute the bases for the development of the four sociological paradigms. Burrell and Morgan (1979) define their paradigms as "very basic meta-theoretical assumptions which underwrite the frame of reference, mode of theorising and *modus operandi* of the social theorist who operate within them." As the authors state "It is a term (paradigm) which is intended to emphasize the commonality of perspective which binds the work of a group of theorists together in such a way that they can be usefully regarded as approaching social theory within the bounds of the same problematic." It is important to take into account that the paradigm definition presented above does not necessarily imply a complete unity of thought inside a paradigm as within a specific context of a given paradigm there is likely to be a debate between theorists with different standpoints and perspectives. On the other

## Critical Systems Thinking and Evaluation

hand, paradigm unity can be understood in terms of basic assumptions that separate and differentiate theorists in different paradigms. As Burrell and Morgan (1979) state: “The ‘unity’ of the paradigm thus derives from reference to alternative views of reality which lie outside its boundaries and which may not necessarily even be recognized as existing.”

Taking this into account, the four paradigms are defined as functionalism, interpretivism, radical humanism and radical structuralism with mutually exclusive views of the social world. They are briefly defined as follows:

*Functionalism.* Claims that what makes something a mental state of a particular type does not depend on its internal constitution, but rather on the way it functions, or the role it plays in the system which it is part of (Stanford Encyclopedia of Philosophy, 2013). It takes the identity of a mental state to be determined by its causal relations to sensory stimulations, other mental states and behaviors. According to Burrell & Morgan (1979), the functionalist approach to social science tends to assume that the social world is composed of relatively concrete empirical artifacts and relationships which can be identified, studied and measured through approaches derived from the natural sciences. It is based on a hard existence independent of the user and seeks to understand and explain the *status quo*, *the social order*, *consensus*, *stability* and *actuality* of the system by means of prediction and control, which is why it follows a regulative ethical state as it not only seeks to understand the status quo but also seeks to maintain it (Oliga, 1988). Functionalist theories belong to one of three major strains, namely: machine functionalism, psycho functionalism and analytic functionalism.

*Interpretivism.* While sharing a regulative ethical commitment with the functionalist paradigm, as both aim at understanding and maintaining the world as it is (*status quo*), it counterpoises to it as a subjectivist position with an overriding concern for understanding the social world at the level of subjective experience and seeking explanations within the realm of individual consciousness and subjectivity (Oliga, 1988) based on multiple points of view and intentions that permit the development of creative constructions (Flood & Jackson, 1991). The paradigm standpoint, is underwritten by the assumption that the world of human affairs is cohesive, ordered and integrated. Burrell & Morgan (1979) state that this paradigm sees the social world as an emergent social process created by the individuals concerned. On the other hand, social reality as it is recognised to have an existence outside the consciousness of any single individual, is regarded as being little more than a network of assumptions and inter subjectively shared meanings.

Their ontological assumptions rule out a direct interest in the issues involved in the order-conflict debate as such. For this reason, the problems of conflict, domination, contradiction, potentiality and change play no part in their theoretical framework. Instead, they get involved with issues related to *status quo*, *the social order*, *consensus*, *stability* and *actuality*, which are the same issues functionalism seek to comprehend.

## Critical Systems Thinking and Evaluation

*Radical Humanism.* In the words of Burrell & Morgan (1979) the radical humanist paradigm is defined by its concern with developing a sociology of radical change from a subjectivist standpoint placing central emphasis upon human consciousness. Its frame of reference is committed to a view of society which emphasises the importance of overthrowing or transcending the limitations of existing social arrangements. One of the most basic notions underlying the paradigm is that the consciousness of man is dominated by the ideological superstructures with which he interacts, and that these drives a cognitive wedge between himself and his true consciousness, namely the wedge of 'alienation' or 'false consciousness'. This wedge, inhibits or prevents true human fulfilment, which is why one of the major concerns for theorists following this paradigm is the release from the constraints which existing social arrangements place upon human development. In general terms, this corresponds to a critique of the *status quo*.

It tends to view society as anti-human and it is concerned to articulate ways in which human beings can transcend the spiritual bonds and fetters which tie them into existing social patterns and thus realise their full potential. It places most emphasis upon *radical change, modes of domination, emancipation, deprivation* and potentiality. The concepts of *structural conflict and contradiction* do not figure prominently within this perspective, since they are characteristic of more objectivist views of the social world, such as those presented within the context of the radical structuralist paradigm.

*Radical Structuralism.* As radical humanism, this paradigm is also concerned with the development of a sociology of radical change, but using an objectivist standpoint with many similarities to the functionalist theory. It is committed to *radical change, emancipation, and potentiality*, in an analysis which emphasises *structural conflict, modes of domination, contradiction* and *deprivation*. Whereas the radical humanists forge their perspective by focusing upon 'consciousness' as the basis for a radical critique of society, the radical structuralists concentrate upon structural relationships within a realist social world (Burrell & Morgan, 1979). They emphasise the fact that radical change is built into the very nature and structure of contemporary society, and they seek to provide explanations of the basic interrelationships within the context of total social formations.

There is a wide range of debate within the paradigm, and different theorists stress the role of different social forces as a means of explaining social change. Whilst some focus directly upon the deep-seated internal contradictions, others focus upon the structure and analysis of power relationships. Common to all theorists is the view that contemporary society is characterised by fundamental conflicts which generate radical change through political and economic crises. It is through such conflict and change that the emancipation of men from the social structures in which they live is seen as coming about.

## Critical Systems Thinking and Evaluation

### FRAMEWORK DEVELOPMENT

As expressed earlier, an evaluation is a systematic process to determine merit, worth, value or significance of an object. More precisely, when speaking about program evaluation, we refer to the use of research methods to systematically investigate the effectiveness of social intervention programs adapted to the political and organizational environment surrounding it. In both cases, the evaluative process is based on judgments of what is considered an improvement, implying the presence of specific worldviews in order to establish desired goals and how to achieve them. In a practical level, evaluation and more precisely program evaluation, can be seen as a process that takes place in two phases, a planning phase and an implementation phase. The planning phase includes an array of elements related to the stakeholders and the context in which the evaluation will take place, while the implementation is directed towards the execution of the plan taking into account the constraints identified in the previous stage, the former will be the focus of the following section.

When planning an evaluation, there are aspects related to three stakeholders that need to be taken into account in order to decide which might be the best direction for the evaluation. These are, the organization or individual that commands the evaluation, the evaluator and the object of the evaluation. The person or entity that commands the evaluation is the one that establishes the initial direction for the evaluation as its desires, goals, ideas and interests are the main reason to start the evaluation in first place. The evaluator, who can be inside or outside the organization is the one who will conduct the evaluation in practice. This person or group of individuals do not only considers the interests, values, ideas, goals and expectations of the ones who commanded the evaluation but also ground their decisions on their own worldviews that may or may not be in accordance with the worldviews of the ones who commanded the evaluation. On the other hand, is the object of the evaluation which does not have a direct intervention as a stakeholder in the evaluation planning but is relevant as it conditions the evaluation according to its functioning and nature.

Taking into account the multiple worldviews of the stakeholders, a reflexive process takes place in two phases as well; inside each stakeholder's faction and between stakeholders. By seeing each stakeholder as a unique individual, we see that the establishment of boundaries is based on the knowledge considered as pertinent and that the choices individuals make between objectively perceived boundaries are essentially ethical or moral choices (Midgley, 1991). When referring to moral choices, we do not only mean principles and moral values but also ideas and goals oriented to the evaluation objectives. On the other hand, when considering multiple factions inside each stakeholder's group and between them, conflict emerges in what each individual or group considers as sacred or profane bringing as implication that boundary judgments will emerge from the overlapping of the boundaries initially established. An important consideration of the establishment of boundary judgments is that the recognition of a set of principles comprising a wide range of values and ideas might not be easy to identify for an individual, which is why activities such as brainstorming, brainwriting and random entry idea generation, are suggested as tools for clarification. On the other hand, it is also important to take into account that hidden agendas or implicit or explicit power relations

## Critical Systems Thinking and Evaluation

might be present between different stakeholders. This could be due to the structure of the organization or the differences in the interests of the people involved, which is why it is important to manage the communication and the negotiation channels between both parts.

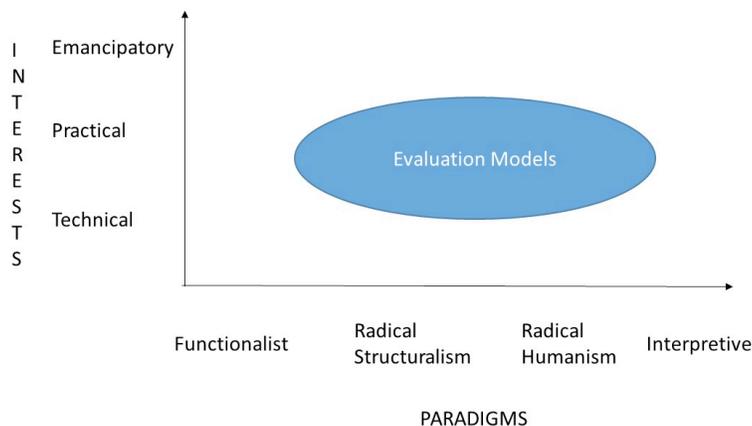
At this point is where the development of the framework gains relevance. When the individuals involved in the decision making process concerning an evaluation model selection have a clear view of what they want, which means they adopted a set of well defined boundary judgments, questions such as “what is the best way to conduct the evaluation?”, “how to conduct a proper evaluation that fits certain worldviews?” and more specifically “which is the best evaluation model that suits interests and values?” emerge. Taking this into account, we consider the sociological paradigms proposed by Burrell & Morgan as a starting point for the development of our framework. This choice was made under the paradigm definition proposed by Kuhn (1962), where the term paradigm is seen as a comprehensive model of understanding that provides a field's members with viewpoints and rules on how to look at the field's problems and how to solve them. An important assumption is the consideration that most of the worldviews or viewpoints generally fall into a spectrum from an objective perspective to a subjective one, but attention should be drawn to the possibility of falling in a position between them that does not imply an objective or a subjective perspective per se but that combines elements from both views.

It is important to note two key points in considering these paradigms. The first one is that although the original paradigms have well defined limits between them, our framework proposes a fuzzy distinction between the categories, as methodological pluralism in a practical level is always useful for attaining multiple goals, but always taking into account a concordant theoretical base. Taking into account this point of view, it is important to say that we do not consider well defined boundaries between paradigms as an evaluation model may fit multiple paradigm views in order to accomplish goals that ground in different types of theories and perspectives. Second, the objective-subjective distinction is important as in a daily life basis objective viewpoints tend to be seen as the right way of viewing and doing things but this is not always true. In this case, these terms merely refer to the stand point of the evaluator as an objective point of view is seen as being grounded on a theoretical and scientific inquiry, free from particular perspectives, values and commitments. Furthermore, subjectivity is related to an understanding of the social world at the level of subjective experience and seeking explanations within the realm of individual consciousness and subjectivity (Oliga, 1988) based on multiple points of view and intentions that permit the development of creative constructions.

On the other hand, the Habermas' “knowledge-constitutive interest” theory is used as the complementary approach for the development of the framework. Although, in the systems field there is a critique of this theory, due to the arguments it presents in relation with the natural human desire for the control of its environment, in the case of evaluation the application of this theory is less problematic since it is not oriented to the control of natural forces or beings, but to human and technical processes intended to produce outcomes and accomplish specific goals. It is important to clarify that in this case, the environment is seen as a force that may affect the performance of the program, policy or project under study but not as a direct target for the exercise of human control.

## Critical Systems Thinking and Evaluation

Taking into account these theories and the clarifications made for both of them, we will introduce our framework. As shown in Figure 1, our framework is made-up by two axes, the Y-axis is composed by the three interests introduced in the Habermas' knowledge-constitutive interests, namely, technical, practical and emancipatory. While the X-axis is composed by the four paradigms presented by Burrell & Morgan: the functionalist, interpretive, radical humanism and radical structuralism. This framework was developed as a tool for decision makers in the field of program evaluation aiming at giving an overview of the rationality behind the most common program evaluation models and the interests they pursue. By doing so, the evaluator will be able to match his or her worldviews with the model with the most common groundings with his or her worldviews and the interests the evaluator wants to fulfill. By doing so, the decision making process may be more clearly directed towards what is more useful in particular situations.



**Figure 1. Framework for Evaluation Models.**

It is important to describe some elements of Figure 1. First, the Y-axis does not have a scale. It only includes the three possible interests the program evaluation might pursue without a specific order of importance or preference. On the other hand, the X-axis does not have a scale either, but it does have a specific order starting by the functionalist paradigm, a paradigm said to be objectively based, passing by two intermediate paradigms until it reaches the interpretive paradigm which is subjectively based. This order, is not attributed to an importance scale, but to match the starting point of both axis at the most objective perspectives for both of them. Second, the objective-subjective consideration is commonly seen as the good and bad perspectives, but in this particular case we are just referring to the stand point from where a situation is seen, as it is considered externally to the mind (objectively) by being the object of thought based on theoretical assumptions, or internally and therefore being affected by an individual consciousness. Although, there is an explicit distinction between an objective and a subjective worldview, it is important to realize that an evaluative process might to some extent subjective as a model selection implies the consideration of specific worldviews that determine what principles, values and ideas are being followed. In this sense what is considered as objective are the underlying assumptions and not the process itself.

## Critical Systems Thinking and Evaluation

For example, the Utilization Focused Evaluation is one of the most recognized types of program evaluation models. It is explicitly geared to ensure that program evaluations make an impact (Patton, 1997, 2000). It is a process for making choices about an evaluation study in collaboration with a targeted group of priority users, selected from a broader set of stakeholders, in order to focus effectively on their intended uses of the evaluation. Through careful and thorough analysis of stakeholders, the evaluator identifies the multiple and varied perspectives and interests that should be represented in the study. He or she then selects a group that is willing to pay the price of substantial involvement and that represents the program's stakeholders. The evaluator then engages this client group to clarify why they need the evaluation, how they intend to apply its findings, how they think it should be conducted, and what types of reports (e.g., oral and/or printed) should be provided (Stufflebeam, 2007). He or she facilitates users' choices by supplying a menu of possible uses, information, and reports for the evaluation. This is done, not to supply the choices, but to help the client group thoughtfully focus and shape the study.

The main possible uses of the evaluation findings contemplated in this approach are assessment of merit and worth, improvement, and generation of knowledge. The approach also values the evaluation process itself, seeing it as helpful in enhancing shared understandings among stakeholders, bringing support to a program, promoting participation in it, and developing and strengthening organizational capacity. It is considered situational and dynamic. Depending on the circumstances, the evaluator may play any of a variety of roles—trainer, measurement expert, internal colleague, external expert, analyst, spokesperson, or mediator. Example foci are processes, outcomes, impacts, costs, and cost benefits. The bases for interpreting evaluation findings are the users' values, and the evaluator will engage in values clarification to ensure that evaluative information and interpretations serve users' purposes. In general, the method of utilization-focused program evaluation is labeled active-reactive-adaptive and situationally responsive, emphasizing that the methodology evolves in response to ongoing deliberations between evaluator and client group, and in consideration of contextual dynamics.

Taking into account this brief description of the Utilization Focused Evaluation, we proceed to locate it in the framework we propose. There are several characteristics that should be highlighted in order to locate it in a specific place. First, unlike most of the evaluation models, the Utilization Focused Evaluation is oriented towards accomplishing the interests and objectives of a selected group of stakeholders, previously chosen by the evaluator, by taking into account what they consider as relevant in the evaluative design and process. Second, this type of evaluation is directed towards technical elements such as outputs and processes measured with specific tools and metrics aiming at improving them based on judgments of merit and worth. Putting this into consideration, this model is oriented towards the technical interest in the practice and the practical interest in their planning phase, as it respectively seeks to assess specific processes and goals and to attain consensus in the worldview used as a base to plan and structure the evaluation.

On the other hand, the paradigm that similarly fits to the subjacent goals, ideals and values of the model is the radical humanist. Mainly because the model intends to move

## Critical Systems Thinking and Evaluation

from the current *status quo*, as it not only starts from a subjectivist standpoint but its final destination is a subjectivist standpoint too. This is, consensus must be reached for the establishment of the goals the selected stakeholders seek to attain, as they need to release themselves from the false consciousness they are into, that prevents them from reaching a desired state and also their judgment of what is considered an improvement or valuable at the end of the evaluation. In order to do this, the model itself proposes the role of the evaluator as a facilitator and several personal traits he or she should have, in order to guide and focus the evaluation and to manage conflicts that may emerge between the considered stakeholders. At the end, the subjacent beliefs, ideals and values of the stakeholders are the ones that direct the evaluation.

Taking into account both perspectives, we see that in this type of evaluation, technical achievements or improvements do not depend merely on the performance of the process or outcome, but the perception of the involved stakeholders has a relevance that might not be considered in major different types of models, as this is one of the few models that seeks to incorporate a wide array of stakeholders in the planning phase. As in the framework development, the importance of power, hidden agendas and conflict emerge as these elements are not considered by either the framework or the model, but are highly influencing factors for the proper conduction of evaluation processes.

In a practical level, the framework should be used as a decision making process supporting tool. Once the decision makers select the model that fits the most with their intentions and goals, we expect that they conduct the evaluation as properly as possible. Due to the relevance that power has in the decision making process and in the conduction of evaluation, the question of “how to manage power?” is likely to be the next phase of our research. In our specific case, the proposed framework will be used in the selection of a model for the assessment of a program of the Bogota Chamber of Commerce (Colombia) for conflict resolution between children in public schools.

## DISCUSSION

In evaluation practice, a proper model selection is very important in order to ensure that evaluation goals will be attained and the evaluation will be conducted as properly as possible. For this reason, this paper presents a framework that seeks to help evaluators gain a general insight of the main assumptions and interests of the most common evaluation models. In order to do this, we took into account Critical Systems Thinking elements such as boundary judgements and reflexivity that might be present in an evaluative process and that directly affect this choice. Our framework development is based on two theories relevant for the Systems Thinking field, namely Habermas' Knowledge Constitutive Interests and the Sociological Paradigms developed by Habermas and Burrell & Morgan respectively. The concept of power gained relevance throughout the development of the framework, which is why we suggested a deeper research on how this issue can be handled as it will be the object of future research.

## Critical Systems Thinking and Evaluation

### REFERENCES

- American Evaluation Association. (2014). What is Evaluation Statement. Retrieved on September 23, 2015 from: <http://www.eval.org/p/bl/et/blogid=2&blogaid=4>.
- Ashley, R. (1981). Realism and Human Interests. Wiley on behalf of The International Studies Association. *International Studies Quarterly*, Vol. 25, No. 2, pp 204-236.
- Burrell, G., and Morgan, G. (1979). *Sociological Paradigms and Organisational Analysis. Elements of the Sociology of Corporate Life*. Ashgate Publishing Limited. Hants, England.
- Cameron, K. (1986). Effectiveness as Paradox: Consensus and Conflict in Conceptions of Organizational Effectiveness, *Management Science* 32(5): 539–53.
- Habermas, J. (1971). Knowledge and human interests: a general perspective. *Knowledge and Human Interests translation by Jeremy J. Shapiro*. Boston: Beacon Press, pp.301-317.
- Hansen, H. (2005). Choosing Evaluation Models. A Discussion on Evaluation Design. *Sage Publications Vol 11 (4): 447-462*.
- Flood, R. (1990). *Liberating Systems Theory*. Plenum Press, New York.
- Flood, R., and Jackson, M. (1991). *Critical systems thinking: directed reading*. John Wiley & Sons. Chichester, England.
- Flood, R., and Romm, N. (1996). *Critical Systems Thinking: current research and practice*. Plenum Press, New York.
- Kenny, A. (2007). Evaluation: emergence, mode of inquiry, theory and practice. Dublin Institute of Technology. *Research in Comparative and International Education. Vol. 2. No. 2*.
- Mark, M., Henry, G., and Julnes, G. (2000). *Evaluation: an integrated framework for understanding, guiding and improving policies and programs*. Jossey-Bass, San Francisco.
- Midgley, G. (1991). The Sacred and Profane in Critical Systems Thinking. *Systems Practice. Vol. 5(1): 5-16*.
- Oliga, J. (1988). Methodological Foundations of Systems Methodologies. *Systems Practice*. Plenum Press, New York.
- Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text* (3rd ed.). Newbury Park, CA: Sage.
- Patton, M. Q. (2000). Utilization-focused evaluation. In D. L. Stufflebeam, G. F. Madaus, & T. Kellaghan (eds.), *Evaluation models*. Boston: Kluwer.
- Pinzon, L., and Midgley, G. (2000). Developing a Systemic Model for the Evaluation of Conflicts. *Systems Research and Behavioral Sciences. Sys. Res. 17, 493-512*.
- Posavac, E., and Carey, R. (2007). *Program evaluation: methods and case studies*. Pearson Prentice-Hall. Upper Saddle River, New Jersey.
- Rossi, P., Lipsey, M., and Freeman, H. (2004). *Evaluation: a systematic approach*. Sage, Thousand Oaks, California.
- Scott, J. (1978). Critical Social Theory: An Introduction and Critique. London School of Economics and Political Science. *The British Journal of Sociology, Vol. 29, No. 1, pp. 1-21*.

## Critical Systems Thinking and Evaluation

Scriven, M. (2003). Evaluation Theory and Metatheory, in Kellaghan, T, and Stufflebeam, D, and Lori A. Wingate (eds) *International Handbook of Educational Evaluation*. Dordrecht: Kluwer Academic Publishers.

Stufflebeam, D. and Shinkfield, A. (2007). *Evaluation theory, models and applications*. Jossey-Bass, San Francisco.

Stanford Encyclopedia of Philosophy. (2014). Jurgen Habermas. Retrieved on June, 2016 from: <http://plato.stanford.edu/entries/habermas/>

Stanford Encyclopedia of Philosophy. (2013). Functionalism. Retrieved on June, 2016 from: <http://plato.stanford.edu/entries/functionalism/>

Vedung, E. (1997). *Public Policy and Program Evaluation*. New Brunswick, NJ: Transaction Publishers.

Weiss, C. (1998). *Evaluation: methods for studying programs and policies*. Prentice-Hall, Upper Saddle River, New Jersey.