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FAIRNESS, JUSTICE, SUBJECTIVITY, OBJECTIVITY AND GOAL CONGRUENCE IN MANAGEMENT CONTROL SYSTEMS

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Abstract

Management control systems are intended to motivate managers to ensure that organizational goals are accomplished. They do this by rewarding and promoting people according to certain criteria. Usually, they are designed to achieve the greatest possible goal congruence, where people pursue personal goals that conduce to the organizational goal.

The literature on management control has focused mainly on formal controls, as they are easier to study empirically. Generally speaking, though, formal and informal controls coexist. In this paper, we attempt to show that organizational justice may act as a link between formal and informal control elements.

We find that there are two stable states, which we have labeled ideal goal congruence (where the system is lawful and the user is fair) and total goal incongruence (where the system is unlawful and the user is unfair); and two unstable states, in which goal congruence is occasional (unlawful system used fairly) or perverse (lawful system used unfairly). We conclude with some propositions, which can be used to generate hypotheses that we believe will stimulate, at the core of the management control systems literature, a new stream of research in which justice is seen as a central element of control system design and use.

Keywords: organizational justice, fairness, goal congruence, management control systems.

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Introduction

Management control systems are intended to motivate managers to ensure that organizational objectives are accomplished. They do this by rewarding and promoting people according to certain criteria. Usually, they are designed to achieve the greatest possible level of goal congruence, where people pursue personal goals that conduce to the organizational goal.

The literature on management control has focused mainly on formal controls (e.g. see Davila and Foster, 2007; Chenhall, 2003; Dávila et al., 2009) because the elements of formal controls are more visible and more easily measurable, making them easier to study empirically. In general, however, wherever a process of control is implemented, formal and informal controls coexist (Anthony and Govindarajan, 2003, p. 98).

As a consequence, it is very unusual to find pieces of research which, when attempting to design control systems that lead to goal congruence, take into account the role that both formal and informal elements play in the control process. This is a difficult task because one needs to find a consistent link between the two (formal and informal controls), i.e., an element that must be present, with an important specific function, in both. In this paper, we attempt to show how organizational justice may play this role in formal and informal control elements, and how actual implementation by managers is then transversal to both.

Past theoretical control literature considers fairness and goal congruence the principal criteria for evaluating control system design (Vancil, 1973). This provides a first starting point for our argument here, even though Vancil does not specify how the two concepts are interlinked or even attempt to rigorously define them. We will show how "fairness" is related to "justice" based on classical and modern analyses of the concepts and attempt to clarify their relationship with goal congruence.

In empirical research, fairness has been considered to be the perception of organizational justice, depending on relevant aspects of control system design. This research has been important because it considers fairness as central; however, it has been designed to test specific hypotheses, rather than to build a theoretical framework. It has stopped short of tackling the general role of fairness in control systems.

Also, it seems quite obvious that fairness is considered important on a practical level. Take a small organization in which there is no formal control system. Unfairness may arise due to a lack of formal controls, so that there are unjustifiable differences in rewards between organizational units or individuals whose performance is similar. When this happens, top management typically reacts by establishing additional formal controls and creating new rules to guarantee a minimum level of fairness. Yet this still leaves room for unfairness when the system is misused. Accordingly, we can distinguish between two kinds of fairness, one embedded in rules, the other a quality of the actions of managers.

In this paper we acknowledge how important justice and fairness are in practice in both respects, i.e., fairness as a quality of the formal system and fairness as a quality of informal aspects of how the system is used. For that reason, we divide what is generally called "justice" into the lawfulness of the system design, on the one hand, and the fairness of the decision maker, on the other. Lawfulness is the main feature of properly established formal rules that create perceptions of justice. Fairness explains perceptions of justice in relation to informal aspects of how management control systems are used. Fairness is embedded in the actions of the decision maker. We propose that fairness and lawfulness can be present or not and that, depending on their presence or absence, management control systems guarantee different levels of goal congruence.

In this paper we proceed as follows. First, we explore the concepts of management control systems, goal congruence and fairness. Second, we identify the objective and subjective elements in goal congruence and fairness. Third, we define the role of justice and fairness in organizations and, specifically, in management control systems. Fourth, we show that formal control systems are not enough to guarantee goal congruence. Lastly, we show that both justice (what we call lawfulness) in the system and fairness in the decision maker are needed in order to achieve stable goal congruence.

To do this, we show how the various combinations of lawfulness/unlawfulness and fairness/unfairness generate four different states of goal congruence and point out the plausible dynamics of these four states. This dynamic aspect is present because people learn how the system is used on them, and how they can use the system. There are situations in which goal congruence is stable and others in which it is not. This can leave us with different problems regarding the expected future level of goal congruence and how to change the present situation into a better one. Finally, we suggest ways in which our theoretical findings can be empirically tested.

The Concept of Management Control Systems

According to Otley and Berry (1980), organizational control is a much neglected subject. Thirty years on, the situation is hardly any better, in spite of technical progress in tools such as the Balanced Scorecard or better information based on advances in IT. In the same article, Otley and Berry quote Tannenbaum (1968) as saying that "an organization without some form of control is impossible," which should be obvious. Managerial tasks entail setting goals, monitoring execution, evaluating results, and allocating rewards and punishments. All these tasks are part of the management control process. A substantial part of managerial activities therefore have to do with management control.

The concept of management control itself is not easy to grasp. If we look at the definitions found in the literature, we see how much they have evolved. Anthony (almost the founding father of management control as an academic subject) stated in 1965 that management control

is "the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives" (Anthony, 1965, p. 27), a definition that remains unchanged in his classic textbook (Anthony et al., 1972, p. 3). This definition stresses organizational objectives that are fixed and taken as given, and effectiveness and efficiency as measures of success in achieving them. It can thus be considered to be based on a cybernetic model of organizations.

Twenty-three years later, in a major revision of the 1965 book, Anthony adopted a different definition: management control is "the process by which managers influence other members of the organization to implement the organization's strategies" (Anthony, 1988).

This new definition is less mechanical and more strategically oriented. The crucial point, though, is the explicit recognition of the fact that managers "influence organizational members," even though how that influence is exerted is not made very explicit. Needless to say (and as we shall see), formal measurement and incentive systems are an important part of this influence.

A few years later, Eccles (1991) gives an even broader definition. Control, he says, is "about creating conditions which will improve the probability that desirable outcomes will be achieved." He stresses two points of this definition that stand in sharp contrast to the previous two definitions: first, that control is probabilistic, i.e., the results of specific practices cannot be foreseen with any reasonable degree of accuracy; and second, that "objectives are not assumed to be set before they are achieved" (Eccles, 1991), i.e., that outcomes should not be limited to previously set objectives because even better outcomes may be possible. Management control is therefore a world of uncertainties, and those uncertainties include the desirability of the objectives.

In this perspective, it should not be surprising to find that formal management control systems have severe limitations, mainly in the cybernetic versions implicit in Anthony's definitions.

A formal control system can be defined as a management control *structure* (i.e., the structure of responsibility, properly specified and defined) and a management control *process* by which 1) goals and strategies are set; 2) converted to an annual budget for each responsibility center; 3) actual performance is measured and assessed, and 4) rewards and punishments are allotted to each responsibility center (Anthony and Govindarajan, 2003).

Formal control systems, thus defined, are particularly suitable for cybernetic systems, where there are more certainties than uncertainties. In rapidly changing, highly uncertain environments, however, a formal control system can become a straightjacket. Hence, informal structures are needed to influence the control process.

The expression "informal organization" originates in Barnard (1938) and refers to the direct relationships between people in organizations that go beyond formal organization charts and manuals. Specifically, Barnard describes informal organizations as encompassing "mores, customs, commonly held aversions, persistent beliefs, conventions, codes of morals, institutions and language" (Barnard, 1938, p. 145). In fact, as Barnard shows, it is the informal organization that creates the formal organization, which in turn develops new informal organizations, which create new formal organizations, and so on. A necessary function of the informal organization, according to Barnard, is that it provides a "means of maintaining the personality of the individual" (Barnard, 1938, p. 122), as in his view the formal organization can be dangerous in that it can destroy individual personality. Both the formal and the informal organization are

therefore necessary, as the formal organization provides for efficiency, while the informal organization provides for communication and values.

The impact of the informal organization – considered by Anthony and Govindarajan as a set of relationships – on management control has unfortunately been much neglected (Anthony and Govindarajan, 2003, p. 102). It is a matter of common observation that small organizations have very rudimentary formal control systems, if any; yet, as the Tannenbaum quote indicates, organizations without control are impossible. Informal management control systems must therefore exist and may play a very important role at any stage of an organization's development.

What is also intuitively clear is that, taken together, the formal and the informal control processes occupy a large part of top managers' time, as it is their job to set goals, monitor execution, evaluate results, and allocate rewards and punishments. Hence, management control systems, interpreted broadly, always have formal and informal components, applied to both the formal and the informal organization.

Management control systems can be said to be formal, informal or, more frequently, a mix of the two. In a small company, the control system is likely to be almost totally informal. Beyond legal accounting requirements, the only evaluation of the organization and its units will be informal, as will the associated rewards and punishments. This type of system can obviously pose problems, as informal rules generally leave room for arbitrariness. As we will show, such systems need to be governed with fairness.

It is quite difficult to find organizations that have only formal control systems, as in every case there is always also an informal organization. The closest example would be that of a highly bureaucratic organization (such as may be found in the public sector), where explicit rules are adhered to strictly. Even then, however, there is always a certain degree of discretion or arbitrariness. These systems are usually less flexible, so injustice does not appear in the form of arbitrariness, but in the form of unjust rules that may be difficult to change. Where that is the case, informal incentives may emerge to correct the situation every time the unjust rule is applied. But precisely because of the nature of formal systems, it is sometimes hard to make that informal rule workable.

When a control system is formalized, both formal and informal controls may be used. A formal system cannot be ruled through formal controls alone, as managers, when *using* the system, exhibit some degree of subjectivity. In most control systems, therefore, there is a mix of formal and informal controls.

Goal Congruence

Goal congruence is "the central purpose of a management control system" (Anthony and Govindarajan, 2003, p. 98). Having made this central statement, Anthony and Govindarajan go on to say that "in a goal congruent process, the actions people are led to take in accordance with their perceived self-interest are also in the best interest of the organization." They recognize that usually, in a imperfect world, perfect goal congruence does not exist, but insist that management control systems need at least "not to encourage individuals to act against the best interests of the organization" (Anthony and Govindarajan, 2003, p. 98). In a more practical vein, they argue that in order to evaluate any management control practice, there are two crucial questions to be answered: 1) what actions does the management practice motivate

people to take in their own self-interest?, and 2) are these actions in the best interest of the organization?

Vancil (1973) does not use the expression "congruence," but proposes that "the controller must select the objectives and measurements in such a way that a good decision by any manager is also a good decision for the corporation as a whole" (Vancil, 1973, p. 77). Vancil thus defines goal congruence in terms of how control systems need to be designed by a controller.

Goal congruence is somehow parallel to what in the economics literature is labeled "incentive compatibility." Of course, the economics literature assumes perfect (unbounded) rationality on the part of the agents and takes only tangible economic variables into account, implicitly assuming them to be perfectly measurable. The term "incentive compatibility" was coined by Hurwicz (1972) in a seminal article in which he tried to answer the question of how an institution needs to be designed when self-interested individuals might try to manipulate economic variables to their personal advantage. This work was the starting point for using economic reasoning to define resource allocation mechanisms. It establishes the foundations for the design and implementation of such mechanisms and tries to show how society's allocations and decisions depend to a large extent on the agents' actions and ability to communicate and the costs of communication.

In the more sociologically based management control literature, some researchers have classified organizations as either normative, instrumental or coercive, depending on whether goals are perfectly aligned, partially aligned or totally misaligned (Otley and Berry, 1980). In practice, organizations are close to the instrumental model, so the real problem is finding solutions that provide inducements to individuals to contribute to the organization's goals (Barnard, 1938), thus increasing goal congruence.

Incentive compatibility is, of course, a desirable characteristic; but it is limited to formal systems and tangible, quantifiable variables, excluding, for instance, unselfish cooperation in organizations. Does this means that there is no need to discuss what kind of design will best align individual and organizational goals? Or how management control systems must be designed in order for goal congruence to increase over time? As we will show, the answer to the first question has to be no, while the answer to the second is more complex, involving additional considerations, which we turn to next.

Fairness and Controllability

For Vancil (1973), fairness means that "each manager must believe that the summary financial measurement used to report on his performance is appropriate" and, moreover, that "he must believe that measurement encompasses all the factors he can control and excludes those over which he has no control" (Vancil, 1973, p. 77). Vancil thus implicitly equates fairness with controllability, which to some extent can be considered "objective".[1] But then he asserts that "fairness is not a fact, it is a perception" (Vancil, 1973, p. 78), which makes it subjective.

Evaluation based on controllable performance can be considered to be "fair." Indeed, this is one of the tenets of management accounting, in spite of possible dysfunctionalities (Demski, 1976). Yet the (informal) concept of fairness goes well beyond this. For instance, fairness has been used in transfer pricing controversies (Eccles, 1983): for a given organization, transfer pricing

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[1] Not completely, though. Many controllable variables are *partially* controllable.

can be considered a fair way to allocate profits to different responsibility centers. This goes beyond the controllability criterion and therefore has to do with fairness applied to control. Transfer pricing is a matter of so-called "fair outcome" distribution and so escapes the narrow conception of being evaluated only on factors over which one can exert some influence. Fairness in setting transfer prices is more like a just norm for distributing income than a just norm for control processes, which is what the controllability criterion is.

Subjectivity and Objectivity in Goal Congruence and Fairness

We can now add some further insights on which elements of fairness and goal congruence are subjective and which are objective. As we have seen, fairness has both subjective and objective elements. This subjective element is exemplified in transfer pricing: there is no general rule for transfer price setting that is "fair;" there is always room for a decision that is partly subjective (Eccles, 1983). Moreover, the people affected by transfer pricing decisions will have their own subjective perceptions of the fairness of those decisions. Vancil (1973) recognizes that fairness is a perception that managers have, so managers subjectively assess what they consider to be fair and how fair they consider it to be. But fairness also has an objective dimension: some rules of fairness are seen as general rules that apply to every process. One of the most common is the "controllability" principle. Managers generally know quite well what they want when they ask for "controllability" to be included in their evaluations. Yet the controllability criterion is imperfect in its implementation, and may include a subjective dimension deriving from managers' perceptions. It is important to recognize that the subjective dimension is implicit in fairness and cannot be ignored.

Goal congruence, too, has both subjective and objective elements. At the organizational level, even where there is agreement about the long-run organizational objectives, it is not immediately clear what short-run objectives should be pursued in order to achieve them. For instance, the actions that will maximize firm value in the long term cannot necessarily be determined objectively in the short term. Indeed, as a general rule, short-term value maximization does not lead to long-term value maximization.

Much the same applies at the level of the individual. People may have an idea of what they want in the long run, but will not necessarily know, under bounded rationality, what they should do now in order to achieve those longer-term objectives. They may be misled by the attractiveness of a short-run course of action that is not optimal in its long-run effects and so may jeopardise the desired ultimate outcome.

In conclusion, we need to direct our efforts along the following lines: if management control systems are one of the main instruments of corporate governance, we need to acknowledge that control system design and operation are of the utmost importance. Accordingly, we must identify the main requirements a control system must meet, both in its design and in its use. We believe that by including fairness we can better understand how different levels of goal congruence are attained in the long run.

Justice in Organizations

Justice in organizations has gained prominence recently and, as we will show, can be an important concept in the operation of a management control system. Justice can be studied in two main ways.

First, we can study how *just systems* need to be designed. Second, we can address how people perceive the decisions delivered by such systems (*justice perceptions*). In spite of attempts to reconcile the two streams of research, only in the very early days of the organizational justice field were philosophical approaches to justice ever included in empirical enquiries. In general, these two ways of approaching justice have remained clearly separated and have produced different results, usually because they ask very different research questions. Philosophical inquiries have mainly attempted to answer questions about what systems and acts need to be like in order to be considered just, while empirical research has mainly addressed questions about whether people perceive different characteristics or aspects of a system as fair or not.

In what follows, we will discuss the dominant theoretical approach to justice. After that, we will show how the literature on justice perceptions has evolved and what the major findings in the area are. We acknowledge the fact that, initially, researchers working on perceptions built explicitly on philosophical theories. Later, they built on previous findings, which they used as psychological theories. We show that since then empirical research has been the dominant approach.

How Just Systems Need to be Designed

Philosophical inquiries regarding justice typically start with Aristotle, who is at the origin of most conceptual applications of justice in current systems of thought applied to management. Aristotle's main thoughts on justice are found in the fifth book of his "*Nichomachean Ethics*" (Aristotle, 2000).

Aristotle starts by considering justice as a virtue, one that is part of a person's character. He defines justice as "that kind of state of character which makes people disposed to do what is just and makes them act justly and wish for what is just" (Aristotle, 2000, p. 109). In his view, justice is the greatest human virtue and the one that comprises all the rest: "in justice is every virtue comprehended" (Aristotle, 2000, p. 111). Justice is also complete in the sense that it is the only virtue that is needed in cooperation; in other words, justice is the virtue that people need to have when engaging in cooperative acts. Aristotle stresses the will as part of this virtue because "a man is just when he acts justly by choice" (Aristotle, 2000, p. 129).

With respect to performing just acts, however, the model of justice depicted by Aristotle clearly distinguishes between two concepts: *lawfulness* and *fairness*. *Lawfulness* is a quality of the system, whereas *fairness* is a quality of acts. Following Aristotle, what is just will be what is lawful and fair, while what is unjust will be what is unlawful or unfair (Aristotle, 2000, Book V).

Going more deeply into the two concepts, *lawfulness* is the result of incorporating in a system a comprehensive set of laws on how to establish relationships, distributions and contributions that are regarded as leading to just outcomes (Aristotle, 2000, Book V). The system is designed in such a way that implementing it results in the final end of human happiness being attained.

Fairness, on the other hand, is the result of applying this *lawful* system with certain corrections to account for personal and external circumstances that are specific to each individual case. Fairness is thus the virtue or habit of subjectively taking account of personal and external circumstances when using a *lawful* system on people (Aristotle, 2000). Following this argument, *fairness* is an applied concept; it appears when a *lawful* system is to be implemented. It includes an attenuation of the toughness of this system when situational and personal factors are taken into account in the judgment (Aristotle, 2000).

As justice is the sum of lawfulness and fairness, and as fairness is considered to be a virtue of a person in an act (in this case, a judgment), Aristotle also considers that there are acts of justice. Acts of justice are those that are used to change an unjust system (*unlawful*, in Aristotelian terms). In this regard, acts of justice require that the authority that decides over the system exercise the virtue of a just person.

Aristotle also tried to distinguish between different types of justice, depending on the matter at the heart of the judgment. The first type of justice he considered was distributive justice. To be just, distributions must give to each person according to some relevant criterion – in Aristotelian terms, *merit*. Equal merit deserves an equal share of the total.

Justice perceptions

The study of justice perceptions has become popular in recent years. The literature is growing, as attempts are made to better understand how people perceive certain features of organizations as just or unjust, and how they direct their actions and behaviors in light of such perceptions. This is an area of increasing interest, both in the field itself and in multidisciplinary approaches (as an example of surveys of the field, see, for instance, Greenberg, 1987; Fortin, 2008).

Major analyses in the field have been directed towards understanding what justice is (Adams, 1963, 1965; Cropanzano and Ambrose, 2001), why people have justice motivations (Folger, 1998; Cropanzano et al., 2005), how judgments are formed (Folger, 1986; Cropanzano and Folger, 1989; Folger and Cropanzano, 2001), and what the consequences are of different justice perceptions and justice policies applied in organizations (Cropanzano, 1993). Some research has concentrated on how to establish guidelines to help managers improve justice perceptions (Cropanzano et al., 2007). People care about justice, and many desirable organizational outcomes may be adversely affected by perceptions of injustice. Caring about employees' justice perceptions therefore seems likely to pay off, and establishing policies to improve those perceptions can be considered proper managerial behavior (Cropanzano et al., 2007). In light of this deeper knowledge, justice variables have come to be considered very important inputs. As knowledge about justice has increased, our understanding of the characteristics a system must have in order to be perceived as just has improved. Another stream of research in the field of subjective perceptional justice has sought to understand what makes people perceive managerial actions and behavior to be fair.

These subjective dimensions (perceptions) of justice have been extensively studied. The empirical evidence shows two things: 1) systems need to have certain characteristics in order to be considered just, and 2) managerial behavior and actions towards people must meet certain requirements in order to be perceived as fair.

This means that, subjectively, people care about the treatment they receive from formal systems, on the one hand, and from managers, on the other, and that they make clear distinctions between the two. These two aspects have been labeled *procedural justice* (Blader and Tyler, 2003) and *interpersonal justice* (Bies, 2001). Sometimes, the two types of justice perceptions have been studied jointly, as they can both be seen as aspects of procedure: the formal aspects (*procedural justice*) and the informal aspects (*interpersonal justice*) (Tyler and Bies, 1990). Usually, however, *interpersonal justice* goes beyond the decision making involved in following procedures to include decision making with respect to the outcomes resulting from those procedures.

That is why it is necessary to include *distributive justice*. From a perceptional, empirical point of view, distributive justice is defined as the perception of the justice of the outcomes received and sometimes is linked to a specific rule or norm of distribution. Although the *actual outcome* can be separated from the *process* of receiving it, there are obviously many links between the concepts of *distributive justice* and *procedural justice*. Some researchers have even challenged the idea that they are different (Ambrose and Arnaud, 2005). *Procedural and distributive justice* have sometimes been found to be interlinked, as people may sometimes accept a less favorable outcome if the procedures that delivered the outcome are fairer. The most common way of dealing with these different concepts of justice is to accept that if people can clearly distinguish between different aspects of justice, it may be useful to use different constructs for each aspect (Colquitt and Shaw, 2005).

Another type of justice, *informational justice*, is the perception of justice attaching to the information received when a personal interaction takes place. This type of justice is usually combined with *interpersonal justice* to form *interactional justice*, which is the overall perception of justice attached to a given interaction (Bies, 2001). Even though informational justice may be important for some purposes, information is so specifically linked to interpersonal relationships that many researchers think of it as being directly interactional justice.

To conclude, three types of justice appear to be important in relation to the purpose of this paper: *distributive justice* (perceptions of justice regarding outcomes), *procedural justice* (perceptions of justice regarding procedures), and *interpersonal justice* (perceptions of justice regarding how procedures are used and how outcomes are decided and delivered by managers).

The approach to justice in the management literature has been largely empirical. This means that the object of study has been individuals' perceptions of justice. Initially, empirical models drew upon philosophical theories of justice, especially the concepts of Aristotelian thought. In fact, empiricists asked to what extent those theoretical concepts held true in reality and attempted to find empirical evidence for their existence (Greenberg and Bies, 1992). Recent studies have usually built directly on empirical findings, without explicitly stating what philosophical theories they are using. We shall address this lack of a theoretical link between management control systems and justice below.

Are Justice and Fairness the Same?

At this point, it is important to clarify whether fairness and justice are different concepts, or whether they are in fact the same. It is clear that, theoretically, the two are different. Aristotle says that justice is the sum of *lawfulness* and *fairness* (Aristotle, 2000), so apparently they are not readily interchangeable. A system can be lawful or unlawful, whereas an act can be just or unjust, fair or unfair.

Interestingly, in empirical studies the two concepts have been used interchangeably: people were asked about their perceptions of justice and fairness without any attempt to discover whether there were any differences between the two. Empirical findings suggest that people perceive different types of things as being (un)fair or (un)just, resulting in different types of justice and fairness. What is clear empirically is that people distinguish between the justice or fairness of the system and the justice or fairness of the decision maker. Moreover, perceptions may be more formal or more informal. Specifically, they may derive from more or less objective features of the formal system, or from the way managers treat people. We have seen that these

two aspects have been labeled *distributive and procedural justice* (for the system's output or procedure) and *interpersonal justice* (for the decision maker).

In conclusion, we can say that research has found theoretically and empirically different aspects of justice and has identified conceptually similar constructs referring to the justice of a system and the justice of a decision maker. Clearly, though, the labels used by empirical researchers are not consistent with those proposed by Aristotle.

Lawfulness and Control Systems

In this section we shall briefly examine the formal requirements of a management control system as regards lawfulness. At the risk of oversimplifying, we consider a formal management control system to be lawful if it meets the following conditions:

1. The goals for the organization as a whole are not set in an arbitrary way but in such a way as to integrate individual goals (Simon, 1964).

2. Goals are distributed across subunits according to personal competences and each subunit is evaluated based its actual achievements.

3. Rewards received by the organization's members are not below what can be considered a "just" minimum.

4. The system explicitly includes ways of repairing injustices.

Justice, Lawfulness, Fairness and Control Systems

Justice is closely and crucially related to management control systems. Showing this relationship, which has been neglected in past management control systems research, is the main objective of this paper. As a rule, research has set out to show empirically how satisfied or dissatisfied people are with the outcomes of management control systems, i.e. how just or unjust those outcomes are perceived to be. Conceptually, however, the relationship between justice and fairness has not been studied in sufficient depth to find conceptually meaningful ways of linking justice and management control systems. Here we shall attempt to show a possible causal link between the two.

We have extensively reviewed the only theoretical approach we have found in the literature (Vancil, 1973). Vancil argues that fairness (mainly defined as controllability) and goal congruence need to interact in management control system design. The main weakness of his argument is that it fails to answer the *how come* question, i.e., the possible cause and effect relationship between fairness and goal congruence. Does fairness contribute to creating goal congruence? Is fairness a necessary condition for goal congruence? To find answers, we can take Vancil as the starting point for our argument; but we need to go one step further. First, however, we shall examine some empirical research that has attempted to link fairness perceptions with management control systems.

Empirical research has mainly inquired into the importance of fairness perceptions in the design of management control systems. Early researchers concentrated above all on characteristics of the process that could lead to greater perceptions of procedural fairness. Issues addressed in this

type of research include the positive effect of giving people voice and explanation during the management control process (Libby, 1999), how managers react to the implementation of procedurally just management control systems (Taylor et al., 1998), and specifically how management control designs that are developed following due process lead to greater procedural justice perceptions (Taylor et al., 1995).

Later research moved towards trying to better understand the mechanisms that create fairness perceptions and how such mechanisms lead to higher performance. Wentzel (2002) argues that these mechanisms can be explained following a two-step process. The first step concentrates on how participation in the budgeting process increases fairness perceptions. The second step shows that those fairness perceptions lead to greater goal commitment on the part of managers (goal congruence, in our terminology) and thus to greater overall performance (Wentzel, 2002).

More recent studies have focused on understanding aspects of fairness such as the controllability principle (Giraud et al., 2008). Findings suggest that managers are willing to accept being evaluated on factors they can influence but do not necessarily expect to have full control over those factors. Moreover, they clearly distinguish between internal and external factors and tend to be more concerned about controlling the internal ones (Giraud et al., 2008).

Subsequently, empirical research has included elements of procedural and distributive justice as variables mediating between strategically oriented management control systems and performance (Burney et al., 2009). One every recent study goes a step further, looking for empirical evidence of the alleged link, identified in previous research, between perceptions of justice and satisfaction resulting from management control system design. The authors formulate conclusions linking the perceptions of justice and satisfaction arising from management control systems to more positive behavior towards the organization and the supervisor (Thurston Jr. and McNall, 2010).

We have found some limitations in previous work. Burney et al. (2009), for example, use only two of the four components of the organizational justice measure provided in Colquitt (2001). Their model therefore omits an important variable: interpersonal justice. Interpersonal justice is the type of justice that best captures the subjective aspects of justice perceptions, generally resulting from managerial decisions on the outcomes and procedures that people are most concerned about.

Furthermore, even if Burney et al.'s model is plausible, they fail to infer any causality relationship and so leave unexplored some interesting points about how justice is an important input for guaranteeing different levels of management control system efficiency (or goal congruence). While they treat justice as merely a mediating variable, we argue that justice and fairness are basic characteristics of a management control system and its use. This is precisely the point we are addressing in this paper.

To conclude, attempts have been made in management control research to empirically show the importance of fairness. However, there is no theoretical work that deals in depth with the role of justice and fairness in management control systems. We believe that by providing meaningful hypotheses to be tested in the future, we can contribute to the theoretical discussion and help to develop research. Vancil's theorizing is a good starting point, as he recognizes that goal congruence and fairness are prerequisites for management control system design. However, we believe that a more thorough conceptualization of fairness and justice and of the possible cause-effect relationship between them and goal congruence is needed.

As stated above, we want to stress that management control systems have both formal and informal components: every management control system includes an implementation part, so the system needs to be managed. System management is subjective, as it involves managers' making decisions and acting in relation to outcomes and procedures when the system is used in a specific context. Justice requirements therefore need to be linked to formal controls, and fairness requirements to informal, subjective controls.

As we shall see next, there is a strong relationship between justice and fairness, on the one hand, and goal congruence on the other. Justice (in a system) and fairness (in the system's managers) can enhance goal congruence, while lack of justice and fairness can undermine it. This analysis considers managerial action and management control system design in combination, and will show which combination of the two is most conducive to goal congruence over time.

Is Justice of the Formal System Enough?

Before we present our model, we would like to discuss the (often implicit) argument that formal systems are sufficient on their own, i.e., that it is always possible to find a formal control system design that results in the best possible control. In the context of justice, the formal system has to do with lawfulness, so according to this argument it is sufficient to have a *lawful* control system. In the following paragraphs we explain why this is not the case.

We can argue this in three different ways. The first has to do with the management control literature. Management control systems that rely exclusively on formal controls have generally been shown to be suboptimal where the output is not measurable and the activities performed are not perfectly observable (Ouchi, 1979). This applies to lawful systems where the only built-in requirements are formal justice requirements.

A second argument comes from incomplete contracts theory. Under bounded rationality it is impossible to establish a contract that anticipates every possible contingency arising from future fulfillment of the contract (Milgrom and Roberts, 1992, p. 256). The *use* dimension therefore makes it imperative to go beyond formal justice requirements.

A third argument, also based on bounded rationality, has to do with the possibility of learning, i.e., the fact that the two people involved may change their minds about the desirability of some anticipated state of affairs. Power needs to be delegated in the expectation that people will honor the trust placed in them by exercising power correctly (Simons, 1995). Delegation thus relies on subjectivity in the use of power.

It is not enough, therefore, for control systems merely to include a set of formal justice requirements, or what we have labeled *lawfulness*. Control systems always require informal procedures, which, by their very nature, include some form of subjectivity. In relation to justice, that subjectivity has to do with the fairness shown by the user of the system.

Justice, Fairness and Goal Congruence

The relationship between lawfulness, fairness and goal congruence is shown in Table 1. Lawfulness is associated with the formal control design, and fairness with the control action taken by the decision maker.

A control system design can be either lawful or unlawful, while control actions can be either fair (where the decision maker subjectively takes justice criteria into account when using the control system to decide on control issues) or unfair (where the decision maker does not subjectively take justice criteria into account). The two variables and the two levels for each variable give four possible combinations with respect to goal congruence: a lawful design combined with fair managerial action, leading to *ideal goal congruence*; a lawful design combined with unfair managerial action, leading to *perverse goal congruence*; an unlawful design combined with fair managerial action, leading to *occasional goal congruence*; and an unlawful design combined with unfair managerial action, leading to *total goal incongruence.* In what follows we shall expand on these four concepts and briefly indicate the plausible dynamics of the four situations.

Table 1

Combinations of justice of the formal system and fairness of managerial action

		Control system formal design	
		Lawful	**Unlawful**
Action taken by the decision maker	Fair	*Ideal goal congruence*	*Occasional goal congruence*
	Unfair	*Perverse goal congruence*	*Total goal incongruence*

Ideal Goal Congruence

When a lawful formal management control system design is used fairly, the alignment of individuals and organization may be close to perfect. This is because individual organizational members are required to perform in a way that is consistent with their abilities and competences, while the goals of the organization are defined so as to include the goals of the individuals. Performance assessment is aligned to what the individuals actually do and mechanisms for repairing injustices are explicitly built into the system. People also have enough to live on, as rewards are above a "just" minimum. Management is therefore acting fairly.

Proposition 1a: A lawful design of the formal management control system leads to ideal goal congruence and to a high degree of identification with the organization among its members.

This situation corresponds to a stable state of equilibrium, as there are no circumstances that motivate individuals to depart from it. There is consistency between the system and the way it is used. Generally speaking, injustices scarcely appear in this kind of system and if they do, they are easily repaired through built-in provisions justly applied by the system manager.

Proposition 1b: Ideal goal congruence is a stable state of equilibrium that tends to continue over time.

Perverse Goal Congruence

When the formal management control system design is lawful and the system is used unfairly, there is room for dysfunctional learning (Hopwood, 1974). This dysfunctional learning occurs because in order to remedy injustices arising from the use of the system, people will ask for

changes in the system itself and for the establishment of stricter rules that are harder to follow, as suggested in Merton's control model (March and Simon, 1993). This leads to a greater emphasis on the lawfulness of the system; but as the use of the system is still unfair, injustices persist. This greater emphasis on lawfulness without effective repair of injustices is likely to transform the system into a highly unlawful one. Furthermore, there tend to be too many rules, which are likely to contradict one another and are harder to adhere to when using the system.

At the same time, dysfunctional learning also takes place in managers. In using the system unfairly, unfair managers learn how to "cheat" the system every time a new rule is introduced. They become better and better at doing this until, in the end, they fully master the vice of being unfair.

In these two cases, injustices are unlikely to to be repaired, as people either call for more rules or, in the case of managers, learn how to be more unfair by defeating the system and any new rules. Both types of dysfunctional learning can transform a lawful system into an unlawful one and lead to goal incongruence and so to lower levels of identification by individuals with the organization.

Proposition 2a: Unfair use of a lawful formal management control system design creates perverse goal congruence. Emphasis on rules makes the system more unlawful, while decision makers become increasingly unfair as they learn how to circumvent the system.

This kind of situation tends to deteriorate and is likely to end in total goal incongruence, as the system eventually becomes unlawful.

Proposition 2b: Perverse goal congruence tends towards total goal incongruence, as people identify less and less with the organization.

Occasional Goal Congruence

When an unlawful formal management control system design is used fairly, every time managers use the system they learn how to use it more fairly, finding new ways to repair the injustices the system creates. Evaluative learning takes place: after first subjectively repairing injustices, managers may start to propose changes to the parts of the system that have proven unlawful. As a result, the unlawful system may be transformed into a lawful one, leading to a situation of perfect goal congruence.

Proposition 3a: An unlawful management control system applied fairly allows for occasional goal congruence. Fair use of the system leads to positive evaluative learning, which can repair injustice.

This situation is highly unstable and evolves towards a better version of itself, tending towards ideal goal congruence, as fairness transforms the system from an unlawful into a lawful one.

Proposition 3b: In a situation of occasional goal incongruence, managers acting fairly can transform the system into a lawful one by changing the parts of the system that have proven unlawful. Ultimately, this can lead to a situation of ideal goal congruence.

Total Goal Incongruence

When an unlawful formal management control system design is used unfairly, there is total goal incongruence and organizational members cannot possibly identify with the organization.

Proposition 4a: An unlawful management control system used unfairly leads to total goal incongruence.

In this type of situation, the learning that takes place in organizational members and managers transforms the organization into a very unjust place, as there is no desire to repair the injustices created by the unlawful system. Every time the management control system is used, the organization deteriorates. It is only a matter of time before the organization is destroyed. This situation is very stable, as there is usually no motivation to improve it.

Proposition 4b: In a situation of total goal incongruence, people will gradually lose their identification with the organization, until they do not identify with it at all.

The consequences of what we have explained above are very important for the management control systems literature. When a situation of injustice appears, people tend to put the emphasis on system design and call for the introduction of new rules to increase the level of justice. System design is important, but we argue that how people use the system is more important, as the willingness to be fair is more powerful than a perfectly lawful system.

We argue that the emphasis should be on fairness. Fairness is what makes corrections to the system, where there is scope for improvement. Also, where there are too many rules, fairness may suggest that certain rules be omitted, so as to keep the system simple. The subjective element that fairness introduces into the system is thus crucial and essential to achieving stable goal congruence and full identification with the organization on the part of organizational members, both of which are core objectives of management control systems.

Putting the emphasis on fairness can result in more just organizations and greater goal congruence. If the emphasis is on formal control design and fairness is omitted, the organization is likely to end in a situation of stable goal incongruence, which is very difficult to turn back into goal congruence. For this reason we propose a final proposition.

Proposition 5: To achieve greater goal congruence and closer identification with the organization on the part of organizational members, emphasis must be placed on using the system more fairly rather than on making the system itself more lawful. If the system is used fairly, it will eventually become more lawful.

Implications for Empirical Research

We mentioned that the more recent literature has taken note of possible links between fairness perceptions and control systems. In this paper, we have tried, first, to take a step back and formulate a theoretical explanation of justice and fairness and how they lead to goal congruence and identification over time. This allows us to establish a theoretical grounding for justice at the core of the management control systems literature, in the form of the propositions stated in the previous section.

We think of this as a starting point. We believe that providing a tentative set of testable hypotheses is necessary and fruitful, in that it will elicit empirical evidence for our proposed explanations of how justice and fairness need to be embedded in control systems.

Empirical evidence will increase our knowledge of the matter and show to what extent our proposal reflects reality. It will also help to refine the proposed framework. Eventually, it could lead to an extension of these theoretical explanations to cover other aspects of justice in control systems that are not explored here. We must therefore carefully select the hypotheses to be examined first, as they will provide useful guidance and help tackle future empirical research on this topic.

Related with proposition 1

Hypothesis 1.1: In a system perceived as lawful and as being used fairly, people will show high levels of organizational commitment, and those levels will increase over time (compared to a system perceived as unlawful and as being used unfairly).

Hypothesis 1.2: In a system perceived as lawful and as being used fairly, there will be higher levels of identification with the organization's mission (compared to a system perceived as unlawful and as being used unfairly).

Related with proposition 2:

Hypothesis 2.1: Perceptions of the lawfulness of a management control system decrease when the system is perceived to have been used unfairly.

Hypothesis 2.2: Individuals' identification with the organizational mission in a lawful control system decreases when the system is perceived to have been used unfairly.

Related with proposition 3:

Hypothesis 3.1: Perceptions of the overall justice of a management control system increase when the system manager is perceived to have acted fairly.

Hypothesis 3.2: In an unlawful control system that is perceived as being used fairly, people believe in the future justice of the system.

Related to proposition 4:

Hypothesis 4.1: In a system perceived as unlawful and as being used unfairly, people will be predisposed to engage in unethical behavior (compared to a system perceived as lawful and as being used fairly).

Summary and Conclusions

In this paper we have attempted to bring together the classical literature on management control systems and the more recent literature on organizational justice to show that both are necessary in order to analyze organizational situations involving management control.

By including both the lawfulness of the system and the fairness with which the system is used, we finally give a specific role to the informal aspects of control systems that previously have been largely neglected. Fairness in the use of control systems, though largely informal, has

already been measured in the organizational justice literature and can be studied empirically. Furthermore, we have found a specific role for justice that makes sense in the management control literature. This role has been intuitively acknowledged in practice but only partially explored empirically. This provides a theoretical grounding for future empirical research, which is a necessary step before any progress can be made in this important stream of research into the role of justice in management control systems.

Finally, we have tried to ground the role of justice in the core of the management control literature and have developed a model of goal congruence as an effect of the lawfulness of the system and the fairness of its use. This leaves us with a range of possible goal congruence situations that lead to different learning dynamics over time.

We have found that there are two stable states, which we have labeled ideal goal congruence (where the system is lawful and the user is fair) and total goal incongruence (where the system is unlawful and the user is unfair). We also find two unstable states in which goal congruence is occasional (unlawful system used fairly) or perverse (lawful system used unfairly).

Where there is perverse goal congruence, the system tends to evolve towards total goal incongruence, because even though the system is lawful, it is overruled and defeated by its users. As managers do not have the will to increase justice within the organization, perceptions of injustice are created and no mechanism is established for remedying injustices. In the end, the system becomes unlawful and even more unfair. The only learning that takes place is negative evaluative learning, as a result of which people learn to act unfairly or else suffer the unfairness of others, while losing their commitment to the organization.

Where there is occasional goal congruence, positive evaluative learning takes place and managers strive to be fair, subjectively seeking immediate solutions to repair the injustices caused by an unlawful system. In the end, the system itself improves. This learning increases managers' fairness and eventually transforms the situation into one of perfect goal congruence.

For this reason, we argue that subjective aspects of justice, manifested in the way the system is used, are capable of improving the organization and increasing people's identification with the organization's mission and their commitment to its goals. Over time, this leads to greater goal congruence. In contrast, concentrating exclusively on system design leaves an element of unfairness, so that if there is no willingness to be just, the system may end up worse off and the organization may suffer from total goal incongruence.

We think that our model allows a deeper understanding of why justice (lawfulness and fairness) is so important and why subjectivity is unavoidable, making the notion of a perfect mechanical design that needs no people and creates a stable situation of goal congruence unrealistic. In contrast, having people who are trained and willing to be fair is a starting point for creating better control systems and better organizations. "

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