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Abstract

Control systems are a fundamental tool in the management process. Management control systems have been judged using the criterion of goal congruence – that is, to what extent the possible rewards given to people when they take specific actions benefit at the same time individuals and the organization as a whole.

Often the concept of justice is not included in the analysis. In recent papers, some theoretical developments have shown that the concept of justice is essential to their dynamics, because it has the potential to change people's attitudes towards the organization and, therefore, their interest in future decisions. However, these developments have been essentially conceptual and have not attempted to go beyond theoretical terms. This paper, using a stylized example, tries to show how this framework can be applied in practice. It also attempts to clarify the concept of goal congruence, by distinguishing between when it is merely quantitative or qualitative and when it can be considered “*weak*” or “*strong*.” Finally, it goes back to the conceptual model of Cugueró-Escofet and Rosanas (2013) and shows how the practical vision of this case adapts to the conceptual analysis offered in their framework, and draws some conclusions.

Keywords: Management control systems; Goal congruence; Formal justice; Informal control systems; Informal justice.

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Introduction

The conventional theory of management control systems, primarily the one that focuses on performance evaluation of specific people and organizational units through a set of indices, has developed classically around the concept of goal congruence. The ideal of goal congruence is the property of a system where the evaluation and rewards are such that, when people act to pursue their own interest, they are acting at the same time in the best interest of the organization. Although we will analyze the concept in more detail below, starting with the intuitive ideas, we may say that, when referring mainly to quantitative indices and results, the usual textbook conclusion is that, in the end, there is no perfect alignment in most situations. In this context, performance indices or indicators are often called “metrics,” just to give the impression that they consist of precise measures that enjoy nice mathematical properties. Unfortunately, they do not, so this very popular name is actually a misnomer; and as we will see, qualitative variables have to be taken into consideration for a good solution to exist.

However, when management control systems theory was just starting, back in the 1960s, some scholars (mainly Richard Vancil of Harvard Business School) already considered it crucial that quantitative goal congruence should be complemented by the criterion of fairness, which might even be the first priority criterion (Vancil 1973). Fairness, from a practical point of view, was at that time taken to mean the classical concept of controllability: people and organizational units should be evaluated with indicators that reflect variables over which they can exert some control and therefore are not the result of chance, of what others do or of general economic conditions. In the 1980s, another Harvard professor made fairness the focal point of transfer pricing, one of the thorniest issues in the area of management control (Eccles 1983 and 1985).

Fairness and justice are quite obviously related and sometimes the terms are used interchangeably, even if some recent literature has tried to distinguish between the two conceptually (Cropanzano and Goldman 2014, Cugueró-Escofet and Fortin 2013). The word “justice” has seldom appeared in the accounting literature, except lately in conceptual studies of a rather abstract character. In two recent papers, for instance, Cugueró-Escofet and Rosanas (2013 and 2015) attempt to study justice in control systems thoroughly, by establishing the distinction between informal and formal justice and incorporating both as key elements that must be part of

the design and the use of management control systems in order to achieve maximum levels of goal congruence. Theirs, therefore, is an approach that links justice with the possibility that the goals of the company and the goals of its executives are aligned to some degree.

Nevertheless, these studies, like some others, have not dealt with the practical issue of how justice can be introduced specifically, and this is by no means a trivial task. There is empirical evidence that certain aspects of justice perceptions relate to management control systems (see, for instance, Coletti et al. 2005, Hartmann and Slapničar 2009), but these studies are not based on a conceptual analysis of justice in the context of management control systems. Also regarding the practical implications of implementing justice in management control systems, there is little evidence regarding core constructs (i.e., goal congruence), except for some studies that link some management control system characteristics to the reduction of unethical behaviors through the improvement of fairness perceptions of these systems (Langevin and Mendoza 2013). Therefore, the application of the suggested framework may become quite difficult. Our aim in this paper is precisely to initiate the study of how a conceptual framework of justice can be applied in business practice. In order to do this, we will base our arguments on a case study that represents a prototypical situation that is fairly common in many companies (mainly multinationals), so that it can be seen to be realistic and easily applicable.

We will proceed as follows: we will first elaborate on the concept of goal congruence, explaining the types of goal congruence and the relative importance they could have in terms of aligning, in the long term, managerial decisions with organizational objectives. Second, we present a specific case where there is a situation of justice and goal congruence. Finally, we conceptually develop the idea that informal justice is sufficient to achieve a sustainable level of goal congruence that could reach a maximum level and include qualitative aspects.

Goal Congruence and Its Possible Types

As mentioned before, the concept of goal congruence has historically been considered a central concept of management control systems theory. Anthony, in one of the key books of the area, defined management control as the process by which “managers influence other members of the organization to implement organizational strategies” (Anthony 1965 and 1988). For this influence to take effect, when managers pursue their own self-interest, they should do it in such a way that, at the same time, their actions are also best for the organization as a whole. This property of the system is what Anthony called goal congruence.

However, goal congruence is not a static property of the formal system. On the contrary, it may change over time because of several possible factors: general economic circumstances, the evolution of the industry and competitors, the firm’s internal strategy and structure, and the attitudes of employees towards the organization, to name a few. Actually, many of these factors originate in the fact that all agents, willingly or not, learn over time, and therefore change their decision rules and their behavior in general.

In any interaction between two people (boss and subordinate, customer and supplier, stockholder and administrator, to mention a few), the two of them typically want to obtain a specific external result (sales, profit, a new facility, a new organizational structure, etc.). Nevertheless, inevitably they will modify their information, their beliefs, their skills and their attitudes as the result of the interaction. That is what we mean by learning. Thus, learning is not limited to the accumulation of knowledge or increasing one’s ability to perform certain

tasks. It includes these conventional, well-known forms of learning, as well as implicit learning, non-transferable knowledge embedded in the agents that take part in the actions, and even changes in their attitudes towards each other (Polanyi 1974, Rosanas 2008 and 2013).

The justice associated with the structure of the control system and its use heavily influences these last types of unconventional learning. Whether employees feel they are being treated justly or unjustly by the organization is a crucial element in their future attitudes towards that organization: if management is unjust in decision-making, this is likely to produce adverse reactions that may seriously affect the company in the future.

However, this is not the only reason why justice is important: justice is a virtue and so, since ancient philosophy, most people have considered “being just” to be what they should do. Aristotle had already said that there was learning from this point of view too: when a person acts justly, he or she becomes just and, when acting unjustly, that person becomes unjust (Aristotle 2000, Book V). Socrates considered that being just was concerned with happiness whereas being unjust was concerned with the opposite state of the soul (Plato 2006, Book I). In our context, a substantial part of actions that are just or unjust within an organization has to do with its management control system: both the goals set through the system and the evaluation and rewards that stem from them are crucial in people’s perception of justice (Langevin and Mendoza 2013).

Goal congruence plays an important role in this context, and it is important to distinguish between different versions of it. First, goal congruence can be considered to take into account quantitative variables only, or to include qualitative variables as well. Cugueró-Escofet and Rosanas use a concept that includes mainly the latter version; but often goal congruence is analyzed with respect to the quantitative variables, even to the exclusion of the others. For instance, the typical textbook treatment of this issue is somewhat paradoxical: on the one hand, authors often devote a chapter to motives other than the purely financial ones; but on the other hand, the analysis in the rest of the chapters is essentially based on the financial variables. Then the goal congruence is purely quantitative. This is what happens in the typical situation between the company and one of its divisions: the textbook analysis consists of ascertaining whether the company’s profit (or contribution margin, or any other alternative financial variable) goes in the same direction as the similar variable of the division (see, for instance, Anthony and Govindarajan 2003, Merchant and Van der Stede 2007, Simons 1999). If it does go in the same direction, this is considered enough of a reason to tie the monetary incentives of the people in charge of the division to the corresponding divisional financial variable. Obviously, simplifying the whole problem to its quantitative, financial dimensions is serious reductionism: people’s motives are much broader, as the relevant chapter in all these books rightly states, even if this point is not further developed later on.

Nonetheless, even if for some purposes we take only the quantitative variables into consideration, there is an aspect that is often forgotten: it may not only be a matter of the divisional and the firm-wide variable pointing towards the same direction: the two variables may have substantially different values, perhaps even different orders of magnitude. Suppose, for instance, that a division of a firm is a profit center (and thus is evaluated on the basis of its gross profit), and the same is true for the firm as a whole. Further assume that the firm has a transfer pricing system by which Division A, which is working below capacity, sells Product X to Division B at a transfer price that equals its variable cost plus 5%. Division B, which is also working below capacity, processes the product further and sells it with a contribution of 40% to the selling price. The cost to Division B of Product X is 21% of the selling price; thus, the total

contribution to the firm is 41% of the selling price. Then there is quantitative goal congruence between each of the divisions and the company as a whole: in both cases, accepting a new order will result in increased profits both for the divisions and for the company as a whole. But the magnitude is quite different: the contribution for Division A is only 1% of the selling price, while the contribution for Division B is 40%, and the contribution for the firm as a whole is 41%. Whenever this happens, it may look a little bit unfair from the beginning, but we hasten to add that whether it actually is unfair or not depends on many circumstances (for instance, the real contribution of each division to the sales volume). In any case, the firm and Division B have a quantitative goal congruence of a similar magnitude, while the firm had a quantitative goal congruence 41 times bigger than that of Division A. We will say then that there is weak goal congruence between Division A and the firm as a whole, and strong goal congruence between Division B and the firm.

In theory, a profit maximizer would make the same decisions whether goal congruence was weak or strong (or, in practical terms, the same for a cent as for €100) but we know that in practice this is not true. Therefore, if we take into account qualitative variables, it may happen that a situation that was originally goal congruent may become goal incongruent. If, at some point in time, because of any reason, it turns out that manufacturing an order of Product X requires a lot of “effort” from Division A, then Division A may decide not to do it, thereby originating a big loss of opportunity to the firm as a whole. Qualitative aspects are therefore crucial for understanding managerial motivations and for influencing people to take one or other decision.

This would not happen with Division B except under very exceptional circumstances. If Division B decides not to manufacture the final product because other qualitative variables are very important and the 40% contribution is not enough to compensate for them, it is very likely that the same argument can be applied to the firm as a whole, thus making the decision optimal.

Obviously, we can reason similarly with quantitative goal incongruence. Now imagine a different situation where the decision to be made is goal incongruent between the firm as a whole and Division A, but the incongruence is weak. Division A may be willing to make the effort to say “yes” for the sake of the company as a whole, even though its profits will decrease: the loss is not so important. Division A may think, though, that the system is unjust; but this is precisely what we want to examine in more depth in this paper. Managers may decide against their short-term interests because the company will earn a lot, and they believe their immediate boss will recognize their efforts and that these efforts will pay in terms of recognition, and they expect that these types of situations will balance themselves out in the long term. However, if the loss of the division is large, managers may not want to accept this and simply “adapt” to the rewards implied by the formal control system, thus making the wrong decision for the firm as a whole. Such managers would have an excellent excuse: they are simply adapting to the formal control system of the firm. Nobody can deny that. However, it is obvious that the consequences are not that good now, and in the long term they may become worse.

So in summary, we distinguish between purely quantitative goal (in)congruence, which affects only quantitative variables, and qualitative goal (in)congruence in cases where there are also qualitative aspects. Quantitative goal congruence may then be weak or strong depending on the relative magnitude of the gains or losses each party makes.

The purpose of this article, as we stated earlier and which we can reaffirm now, is to show how the notion of (mainly informal) justice and its application in the management control process can solve problems that normally mere quantitative goal congruence cannot solve, especially if it is weak. In fact, informal justice is indispensable in any context where qualitative variables are important. We also stated that, at an abstract level of analysis, this problem has been studied in some depth, even if different types of goal congruence were not distinguished, and moreover these analyses do not explain how to apply this in practice. We will now see in the context of a specific case how the distinction between formal and informal justice is crucial for that purpose. We will do this by illustrating our arguments using a case that is actually a combination of real-world cases, although we have simplified them to some extent.

Case Blogisar¹

The company Blogisar is a large company with several divisions, each of which produces and sells specific products, mainly chemicals. One of the products is produced exclusively in a company plant originally established in Germany and sold throughout Western Europe. The plant was considered a profit center – that is, its managers were evaluated according to the profits obtained. This practice was working smoothly and with no particular trouble, beyond the usual problems that a profit center can have, since it did not compete with any other division.

In 1998, the Eastern European market promised to be important for its product and, as the Southern European market was growing as well, the company decided to increase capacity. Top management then made the decision to renew the main factory in Germany and build a new plant in Tarragona to manufacture and sell the product. The facilities that were installed in Tarragona were the original German ones, which were in very good condition. The new German plant's initial capacity greatly exceeded the estimated short-term demand but this was to accommodate the expected future growth in demand. The company expected demand to increase in the years to come and this would justify the additional capacity investment.

The installed production facilities in Tarragona would serve to supply the market in Southern Europe. Since the product was not differentiated, the variables that determined profitability were essentially managing sales, costs, and capacity management. As planned from the beginning, the plant in Tarragona worked virtually at full capacity. If it needed more of the product, it could import some from the German division, which, as mentioned, initially was manufacturing with excess capacity.

From the beginning, the Tarragona division had higher than expected demand and, in only a few months, it was working at capacity and had to import some of the product from Germany. Those at the Tarragona division thought it was conceivable that, for some specific orders, Germany might use some of the product manufactured in Tarragona but only in small amounts and for brief periods of time.

¹ The case has been prepared by taking some elements from the Polysar case (Harvard Business School, 9-187-098) and the Chemblog series (IESE, C-761-E, C-762-E and C-763-E), but we have limited our analysis to a schematic simplification, eliminating many details and showing only the variables that are crucial to understanding the role of justice and how it can be applied in practice.

The cost system of the German division allocated fixed costs to the product units based on the plant's total capacity, as is customary in many activity-based cost systems. The immediate accounting consequence was that, from the beginning, a volume variance was budgeted (the cost of unused capacity), which was unfavorable and already included in the budget. Of course, this affected the income of the German division and therefore that of the whole company.

From the beginning, the company decided that, if the German division was evaluated according to divisional profits, the same should apply to the division in Tarragona. When transfers started from Germany to Tarragona, the company decided these would be valued at standard total cost, with full allocation of fixed costs in Germany. The top management team of the company believed that this was "fair" and eliminated the need for a transfer pricing system.

Nevertheless, it was not long after Tarragona had started its operations that some problems began to appear. The budget of the German division included a "budgeted volume variance," because those at the division knew that, for a number of years, they would not be able to operate at full capacity and did not want to have the tons actually produced to be held responsible for the fixed costs of the plant. This budgeted volume variance, of course, was calculated taking into account the expected demand from Tarragona. A problem arose when Tarragona actually ordered fewer units from Germany than it had budgeted for. Then, Germany had an actual volume variance that was higher than expected because of decisions made in Tarragona. It then seemed that something was wrong with the system: it was pushing Tarragona to do something that was "bad" for Germany.

Tarragona preferred to produce internally as much as possible, because of two obvious reasons. First, the variable costs in Tarragona were less than the variable costs in Germany. And second, it did not have to pay the fixed costs that the German division charged for each ton. Tarragona already worked at full capacity so its fixed costs were already absorbed at their level of production and current sales. Indeed, it had a favorable volume variance. Tarragona had been particularly good at increasing actual capacity, through better production scheduling, efficient maintenance and improvement of its own methods. Therefore, even though the Tarragona division had planned to order a number of tons from Germany, the actual number was less because it had "squeezed in" some additional production in its plant. The consequence was an unexpected volume variance and an accounting loss for the German division.

Let us be more specific and look at some of the main numbers. The total fixed costs in Germany were €70 million and the estimated capacity was 100,000 tons so the fixed cost per ton was about €700. The total fixed costs in Tarragona were €31 million and the estimated capacity was 50,000 tons, so the fixed cost per ton was €620. In Germany the variable cost was €410 per ton and in Tarragona it was €390, so the difference was small but significant. Both the fixed and variable costs of Tarragona were lower than those of Germany due to the lower cost of labor, the fact that raw materials for the Spanish market had a lower price and finally because of the high costs of land and facilities in Germany.

So, with these figures, let us next examine what the right decisions would be and to what extent the system is goal congruent.

The Quantitative Objectives of Blogisar and Its Divisions

Let us first examine the objectives of Blogisar as a whole. We will restrict ourselves to the main quantitative variables, because including other, qualitative variables would require a much deeper analysis for which we have no space. From this point of view, what Blogisar wanted was profit, growth and profitability with a good-quality product.

The decision to expand capacity in Germany and to build a plant in Tarragona has to be seen in this context. Taking these general objectives as given, we can easily derive the objectives that the two divisions should try to accomplish. Tarragona should aim to sell as much as possible, importing from Germany if necessary, and to produce as efficiently as possible, keeping costs controlled and preserving quality. In contrast, the German division should put more emphasis on increasing sales, because real profitability had to be based on the full utilization of capacity as soon as possible. This would be done, obviously, with efficient operations and by keeping costs as low as possible as well.

The Current Formal Control System: Profit Centers

At the origin of the problem was the decision to make the two divisions profit centers. It is often argued that the existence of profit centers in independent divisions favors decentralization because, if every division acts as an independent firm, the profit of that division will be the same as the profit the division adds to the company as a whole, therefore producing strong quantitative goal congruence. The main problem with profit centers is of course the possible interdependence between the divisions, mainly what Thompson (1967) called “sequential interdependence,” which calls for transfer pricing. Sometimes, naïvely, some companies try to avoid the problem by transferring products at cost, but cost (variable or full, and with or without a mark-up) is simply an implicit transfer price, in the sense that it determines what part of the profit goes to every division. As we will see, this is a crucial problem at Blogisar.

Quantitatively, the problem is rather simple. As stated above, Tarragona prefers to manufacture itself if possible because, if it imports from Germany, the “transfer price” is the full cost for Germany, that is, €1,110 per ton, while the variable cost of manufacturing is only €390, with a difference of €720 per ton going directly to its income statement. For Blogisar as a whole, the cost of manufacturing in Germany is €410 and in Tarragona the cost is €390, so it is better to manufacture in Germany, but by a difference of only €20 per ton. From this point of view, we may say that there is weak goal congruence.

So the problem is in Germany: the division “loses” a €720 contribution because Tarragona is able to manufacture more. Blaming the German division (and affecting its possible incentives) for that decision is clearly unjust, and it will be perceived as such by the German division. It would seem, then, that there is a problem of goal congruence between the German division and the Tarragona division. But, as we have seen, the Tarragona decision to increase production “beyond full capacity” was a good one for the company as a whole: there was weak goal congruence. A centralized planner, if given the choice, would decide to produce in the plant where the costs are lower – that is, Tarragona.

So the problem is essentially one of justice: the German division is formally treated unjustly because in its evaluation there is a big uncontrollable element, namely the demand from Tarragona. Often, when this happens, firms are tempted to change the structure of the system.

For instance, the German division may argue that it should not be treated as a profit center but possibly as a cost center, evaluated on standards, budgets, and variance analysis. However, this would only make things worse: in its evaluation the German division would have no incentive (tangible or intangible) related to a possible increase in sales, which to some extent should be its priority objective. A “composite” index weighting – say, cost variances and sales growth – is likely to have the sort of dysfunctional consequences that were well-known more than half a century ago (Ridgway 1956) but that seem to have been forgotten today. Measuring profit only for the two divisions as an aggregate and thereby making a unique profit center would clearly be unjust to the Tarragona division, which is doing just fine and, thus, would have to be charged the German volume variance.

The structure of the control system is, then, formally unjust, but the alternatives could be much worse. So is there any solution to such a problem?

The Sensible Solution: Informal Justice

There is no formal solution in many problems, and the stylized case we have presented here is a clear example. The solution, therefore, can come only through informal systems and from the informal justice that they can generate. If a strictly formal structure alone could create goal congruence, the process of control and setting specific targets would not be necessary at all. If they are necessary, to a great extent it is because it is important to evaluate the performance of individuals and the responsibility centers as a function of what can reasonably be expected, and this is what is normally reflected in the budget. So the boss should evaluate the two divisions, but mainly the German division in this case, through an elaborate variance analysis of the income statement, including of course the bottom line and many intangible factors. The boss should add to this a personal, informal (and thus subjective) evaluation of the extent to which the division can control the variances. This might result in a tangible or an intangible incentive. Again, it is informal and subjective. Today subjectivity is often considered to be an undesirable property, as it is forgotten that management is inevitably subjective by its very nature.

The informal evaluation, thus, cannot be done with preset formulas, but we can suggest here that, in our case, a good starting point would be to add to the German division's profit the unexpected deviation in volume created by the Tarragona division. It has to be recognized, though, that it may be difficult to determine this with precision. For instance, it will never be obvious to what extent the German division may be partly responsible for the unexpected volume variance. These evaluations are necessarily subjective: quantitative indices fall short when we face a multiplicity of circumstances.

One more point about the general impossibility of formally just control systems. Both internal and external circumstances change through time, and a system that is formally just today may be formally unjust tomorrow and vice versa. So, stable goal congruence through formal systems may be impossible to achieve. They would have to be changed every so often. In the case we presented, we showed how goal congruence for the Tarragona division was weak; hence, a relatively small change in the variable costs may make it become incongruent, although this was very unlikely to happen in the real case. In any case, changing the system every time this happens might be extremely costly. In summary, attempting to fix a goal congruence/justice problem through formal changes in the system may well be impossible; and if it is not, it may be very impractical.

The Intangible Variables and Informal Justice

Implicitly or explicitly, in situations like the one in our case, some intangible variables are important: not everything ends with monetary incentives, of course. For instance, pride in one's own work: the manager of the German division will never like showing a loss in its accounts, especially when Tarragona is showing a substantial profit – no matter what the incentive is, and no matter how other variables are evaluated.

In the context of our example, one crucial point is a technical one: the problem arises because of an unexpected volume variance, which is a technical accounting issue that is not entirely easy to understand. The manager of the German division may not be well trained in accounting matters; and the same may be true for the controller, the line officer in charge of the German division at the top management level. However, dealing with this situation with informal justice requires a good understanding on both sides of the technical problem that they have. Why there is a problem and how it cannot be formally solved are things both parties have to understand and they must show each other that they do. Otherwise, the possible informal solution will be only cosmetic or superficial, like a pat on the back lacking substantive content.

The controller may have to play a fundamental role. Often, a controller is given functions that he or she should not have, such as making the decision as to what control action is suitable. In contrast, a crucial function of this person is to give technical assistance to both “controller” and “controllee” and to help them understand the situation. The head in the hierarchy must want to understand the relevant issues and the controller must be able to provide the head with a sufficient explanation. The subordinate who sends the results expects the person in charge of the division to understand in depth what is happening with the numbers, to perceive that there is justice in the treatment received. And this perception, if it is real and not just an impression management issue, is the element needed to reestablish the justice that the formal system alone cannot possibly offer in such complex situations.

Then, of course, the controller has to make a decision about the controllee's possible rewards, including perhaps a monetary incentive outside the formulas, and/or perhaps a promise of a future incentive whenever some goal is met. It will be the controller's decision. But basically, she or he has to have justice in mind.

This proposal goes in the opposite direction to many of the recent developments in this area of research. In recent decades, there has been a trend toward formal systems of incentives based almost exclusively on indicators, going by names such as metrics or KPIs, where the concern for justice is completely absent (see, for instance, Kaplan and Norton 1996, a thick book on the subject where the word “justice” never appears). There is concern only for “objectivity” as something absolutely necessary and for incentives to push people in the direction that is considered good for the firm through indices that are supposed to reflect strategy. Here we present the opposite point of view: we have shown that justice is important both because it has effects on the future and because it is an ethical concept, but there are situations in which justice can only be effectively introduced informally. This necessarily implies subjectivity. This is why we will end this analysis using the conceptual model on which we base our case, which is included in the work of Cugueró-Escofet and Rosanas (2013 and 2015).

Conceptual Analysis

As mentioned above, this case exemplifies the possibilities offered in a formal model of control systems that incorporates organizational justice. In their article, Cugueró-Escofet and Rosanas (2013) show the existence of four states of goal congruence depending on whether there are the prerequisites of formal and informal justice in the management control system design and use. The authors consider formal justice to be those requirements that create justice through the design of a control system and informal justice to be those requirements that create justice through the use of control systems. The two extreme cases are maximum goal congruence (where there is formal and informal justice) and minimum goal congruence (where there is neither formal nor informal justice). These two situations tend to be stable and the case of maximum congruence of objectives typically is a case of excellence, where the managers use control systems consciously and with justice. The goal congruence concept analyzed includes qualitative variables – that is, there are elements that escape the traditional quantitative measures that are typically used to assess whether or not there is goal congruence.

The two most interesting states proposed in the Cugueró-Escofet and Rosanas analysis are the perverse and the occasional goal congruence. Perverse goal congruence occurs when the system is designed according to the criteria of formal justice, but the system is used in an unjust way. This case is unstable because the managers with their decisions create perceptions of unfairness and therefore this may end up transforming the system into a formally unjust one, and thus goal congruence would move to minimum goal congruence. The second intermediate case would be that of occasional goal congruence, where the system is formally unjust but the manager uses the system in an informally just way. This case is interesting because it illustrates the importance of managerial action. As the system is used, unjust situations are created but the manager tries to correct the consequences informally. At the same time the manager tries to change the system, through managerial action, into a more formally just system. Therefore, in the long term this system will end up in a situation with maximum goal congruence of objectives, because this is the normal trend when formal justice is improved through just use of the system.

The case we presented in this paper starts with weak quantitative goal congruence, and illustrates the situation quite well. Looking at the four possibilities of goal congruence that were offered in the conceptual model, we can say that the case presented is a case where formal justice is not possible from the beginning. Given the objectives of the firm as a whole and the objectives of the two divisions, maximum goal congruence of a quantitative character cannot be achieved. However, it can be developed by applying informal justice of a qualitative nature in the evaluation, which will help to achieve the key variables of the German division. This happens, specifically, when sales achieve a level that is high enough. Then the volume variance and the internal sales will lose importance and the structure of the control system will be just, having then the possibility of reaching maximum goal congruence if management acts with informal justice.

In addition, the situation presented in the case may illustrate a situation that is particularly interesting in applying the model of Cugueró-Escofet and Rosanas. Will the situation of maximum goal congruence, if it is reached, be stable? In theory, if circumstances do not change, yes; but if there is a change either in the environment (for instance, in the key variables) or within the firm (a change of strategy or structure), the new situation may again be formally unjust. Maximum goal congruence may thus not be stable because it cannot incorporate all the possibilities for the future. Inevitably, the formal system may end up generating injustices. Inevitably, therefore, the maximum goal congruence will be qualitative,

and always by means of the occasional goal congruence, when the manager is aware that it is not possible to achieve maximum goal congruence based only on quantitative variables, and so she or he is informally just. In this sense, we suggest that this is a limitation of this model that makes the need for informal justice even more evident: not just to reach stable maximum goal congruence but to compensate for a situation where stable formal justice is not possible, and it makes intense managerial action more necessary. In any case, the stability of a situation of maximum goal congruence when there are internal or external changes remains open to question and suggests further research on the matter.

Conclusions

This paper has attempted to show how, even though there are situations where it is impossible to design a formally just management control system, informal justice may be a sufficient condition for the management control problem to have a solution. For this purpose, we have presented a stylized situation, based on a composite of real-world cases, where it is clear that there is no possible design of a formal control system that helps achieve the firm's key economic variables and is formally just at the same time. So, if we focus the system on achieving the key economic variables and therefore it is formally unjust, the solution to the problem of injustice should come from the informal system. Using the system in a way that is informally just will lead to two types of (complementary) outcomes. First, in the short run, we can obtain a situation that is just, and so can be perceived as fair by the employees evaluated by the system (in the terminology of Cugueró-Escofet and Rosanas, there is occasional goal congruence), with the positive consequences in terms of morale and employee identification that we often associate with justice. Second, in the long run, when the objectives in terms of the key variables start being met, the formal control system that was unjust will become less and less so: whenever the German division reaches capacity (or gets close to it), the system will no longer be formally unjust. Therefore, according to Cugueró-Escofet and Rosanas (2013 and 2015), in a formally just system governed with informal justice at the same time, the organization will then achieve maximum goal congruence, which should result in a stable situation. Of course, this does not mean that the organization will remain in that state forever: there may be many reasons (internal or external) why the situation might change, and the organization should be able to respond to them adequately. Unfortunately, a detailed examination of why this might happen and how the organization should be able to respond exceeds the objectives of this paper and thus becomes a possible line of further research.

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