REASONABLENESS IN ADMINISTRATIVE DISCRETION: A FORMAL MODEL

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Abstract. In this article, I argue that administrative discretional decision-making, achieving a public interest to protect, is an evaluation process that occurs through the reasonable and proportional comparison of several private (secondary) interests conflicting with a single public (primary) interest. I suggest that the dynamics of weighing competing interests are similar to the procedure for balancing constitutional rights. Thus, drawing on Robert Alexy's constitutional balancing model, I propose a model that is applicable to discretionary administrative decisions, in which the outcome of the proportional weighing of secondary interests works as a "moderation factor" for the primary interest. In my model, the outcomes of the discretional process can be converted into numerical values, simplifying decision consistency so as to make it simple, complete and reasonable at the same time.

1. REASONABLENESS AND ADMINISTRATIVE DISCRETION

The concept of discretional decision-making is one of the main issues in administrative law (Galigan, 1986). First, with respect to the historical component of this concept, it should be noted that the term "discretion" has been used (Fletcher, 1996) to indicate the administration's goal of exercising discretional power without arbitrariness since administrations achieve their purposes by involving all citizens. Wielding this power, the administration can make a choice between all of the compatible solutions in a range, but can also enjoy freedom of choice bounded by the well-known reasonableness principle.

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All of the choices foundational to an administrative act are bounded by the reasonableness principle. This principle expresses the logical relationship that must exist between discretional decisions and the evaluation of all public and private interests involved in the circumstances of the case. Nonetheless, this evaluation on the one hand requires the maximization of the public interest (since the principle of reasonableness demands that every discretional decision must be related to a public interest), but on the other hand demands that competing private interests not be totally compromised.

Administrative discretional decision-making is an evaluation activity (Stewart, 1975; West, 1984): when the administration makes its assessments, it has the freedom to evaluate a fact, giving to every element of the case a degree of importance. Thus, the aim of discretional power is to set the comparative weights of all of the competing interests, and the administration is bounded by this evaluation. Indeed, the discretional decision-making process is a *functionalised choice* since the administration's discretional power has a series of internal limits for the achievement and the satisfaction of social needs.

Furthermore, this *functionalised choice* has been recently involved by the advent of new technologies, which has transformed the administration's evaluation activities, improving the access to information and the organization of the public administration (Johnson and Masri, 2004; Australian ARC, 2004; Frémont, 1994). In particular, noteworthy improvements have been made in automation of administrative decisions, but only with reference to specific areas or specific phases of the administrative activities (De Bruin *et al.*, 2002). Thus, the development of a formal (and, therefore, "computable") model of reasonableness in administrative decision, as introduced in this paper, may give a stronger enhancement to the reliability of the digital tools supporting the administrative decisions.

2. BALANCING COMPETING INTERESTS

2.1. Theoretical background

Klatt (2007, 518) asserts that discretion has to be anchored in the system of weighing and balancing legal principles. Balancing is an argumentation method used across contemporary constitutional systems to settle conflicts between constitutional principles (Aleinikoff, 1987): when a legal question faces two competing constitutional principles—that is, in a situation where two or more rights may not be fully satisfied at the same time—a Constitutional Court must

decide which principle is most relevant in the case under consideration and look for a weighed (or balanced) solution (Alexy, 2002).

It is possible to characterise the balancing process as containing two main elements. First, it is necessary that there be a conflict between two (or more) principles. For example, one might consider the conflict between the requirement to place health information regarding the dangers of smoking on tobacco products and the economic freedom to sell cigars. Secondly, in order to balance such a conflict, it is necessary to establish an *axiological hierarchy*—that is, a scale of values—between the competing principles. For example, we might assume that the freedom of occupation has a lower value than the protection of customers' health, in which case we would decide according to this preference.

The axiological hierarchy is necessary because the traditional Civil Law criteria of antinomy resolution are inapplicable to constitutional principles: that is, the "*lex superior derogat inferiori*" (a superior statute waives the inferior one) criterion would be inapplicable because constitutional principles are hierarchically at the same level; the "*lex posterior derogat priori*" (a later statute waives the former one) criterion would be impracticable because constitutional principles are part of the same normative act; for the same reason, we cannot apply the "*lex specialis derogat generali*" (a special statute waives the general one) criterion.

The process of administrative discretional decision-making demonstrates the evaluation's reasonableness through the motivations of the choice. As mentioned above, the exercise of administrative discretion has as its object a comparison between public and private interests, in the same way as happens in the balancing of competing constitutional principles. In relation to this, it seems appropriate to note that administrative discretionary acts, and more specifically the pursuit of the primary interests, involve a range of interests—in a relationship of mutual tension and conflict—that the administration must take into account in its decision.

Consequently, in its adjudication, the administration must evaluate each interest at stake in order to adopt a reasonable choice according to the axiological hierarchy assumed for a specific situation. In my view, therefore, it is very important to develop a formal theory of discretional decision-making that, while containing axiological evaluations, can be controlled rationally to allow for an adequate margin of predictability, especially if that happens with technological tools.

In particular, with the introduction of a formal argumentation model with a mathematical outcome we can ensure the control of the reasonableness in

administrative decision-making, facing one of the most important obstacles of the development of digital frameworks supporting the administrative decisions (Helling, 2003).

2.2. Structural analysis

According to Alexy (2002), to better understand the structure of balancing, it seems appropriate to mention the difference between the syllogistic application of rules and weighing principles. In the case of a conflict between two rules, the antinomy resolution is "binary": the result can only be the waiver of the invalid (or the inapplicable) rule and the simultaneous application of the other. For instance, if we are in a museum and we see two signs saying "no smoking" and "smoking is allowed" in the same room, we must apply one of the two rules, and only one. In the case of balancing, we instead reach a decision that raises a competing principle to the partial detriment of the other, but without the latter's being totally debased. For example, in the case of a conflict between the national defence principle and the right to privacy, we cannot choose to apply one of them, but must *balance* them in relation to the circumstances of the case.

The structural gap that stands out between rules and principles allows one to apply to these rules the logical appeal (syllogism), which entails the identification of an applicable rule (major premise), the qualification of the circumstances according to the foreseen case (minor premise) and the application of the rule. The result is subsumed according to the scheme:

(1) $\forall x \ (Tx \rightarrow Rx)$

(2) Ta

(3) Ra

This scheme summarises the *normative syllogism*, which connects a certain legally qualified case to a general and abstract case exemplifying a valid rule. Specifically, the premise (1) states that for any x, if x is T (where T is a predicate or, more generally, a set of properties that characterises a given case), then the legal consequence R applies for x. The premise (2), in turn, expresses the fact that a is a T. The major premise is applied to a, so that R must be true for a.

The application of a principle does not constitute a syllogism but assumes the different argumentative structure of balancing, whose essence consists of a relationship that can be defined as the *law of balancing*:

> The greater the degree of non-satisfaction of, or detriment to, one right or principle, the greater must be the importance of satisfying the other (Alexy, 2002, 102).

In applying the law of balancing, Alexy (2003) has proposed a model of balancing principles that follows a scheme divided into three stages: first, we determine the degree of injury to (or non-satisfaction of) the first principle; in the second stage, we establish the importance of satisfying the competing principle; in the third stage, we determine if the importance of satisfying the latter principle justifies the injury to (or the non-satisfaction of) the former.

Alexy observes that the German Constitutional Court frequently justifies its judgments regarding the legitimacy of certain laws by examining the impacts of such laws on principles, and by characterising such impacts as *light*, *medium*, or *serious*. For example, the duty to place health information (regarding the dangers of smoking) on tobacco products was considered to be legitimate because such duty implied a *light* interference with economic freedom, which was outweighed by the need to protect customers' health as heavily endangered by smoking (Alexy, 2003, 437).

Therefore, in the balancing process, there appear quantitative elements (the degree of injury, the extent of importance, etc.) that correspond to the linguistic expressions "*light*", "*medium*" and "*serious*" in the German Constitutional Court legal arguments. According to Alexy (2003), those linguistic expressions can be transformed with numerical values between which we can establish a proportional relationship. So, Alexy proposes a simple method of numerically characterising the impact of legal decisions on relevant values with a triadic (three-grade) model, linking the principles' values to three numerical values—for instance, the geometric sequence 2^0, 2^1 and 2^2 (that is 1, 2, and 4), so that a light degree has a value of 1, a medium degree a value of 2, and a serious degree a value of 4.

Correspondingly, Alexy recommends the following steps. Firstly, we should qualify the (light, medium or serious) *intensity of interference* (that is, the degree of importance) of two supposed competing principles P_1 and P_2 under the circumstances of the case to be decided, represented with I_1 and I_2 respectively. Secondly, I_1 and I_2 are put in relation by introducing the size $W_{1,2}$ as the *concrete weigh* of P_1 under the circumstances of the case to be balanced with the competing principle P_2. $W_{1,2}$ is represented as the *quotient* of the two intensities I_1 and I_2:

$$W_{1,2} = \frac{I_1}{I_2} \qquad (1)$$

The $W_{1,2}$ value is the quotient of the intensity of interference with the principle P_1 and the concrete importance of the competing principle P_2. So the concrete weight can be defined as a quotient in a numerical model that illustrates the structure of balancing. In legal argumentation, it is only analogous to a quotient (Alexy, 2003, 444).

On this basis, in the cases in which the principle P_1 has lesser importance than the principle P_2, $W_{1,2}$ assumes a value greater than 1:

$$W_{1,2} = \frac{4}{1} = 4 \qquad (2)$$

$$W_{1,2} = \frac{4}{2} = 2 \qquad (3)$$

$$W_{1,2} = \frac{2}{1} = 2 \qquad (4)$$

If P_2 takes precedence over P_1, $W_{1,2}$ sinks below 1:

$$W_{1,2} = \frac{1}{4} = \frac{1}{4} \qquad (5)$$

$$W_{1,2} = \frac{2}{4} = \frac{1}{2} \qquad (6)$$

$$W_{1,2} = \frac{1}{2} = \frac{1}{2} \qquad (7)$$

In all three stalemate cases, the value of the concrete weight $W_{1,2}$ is the same (namely, 1), so that no principle is able to exercise strength (either positive nor negative) over the competing principle.

Having traced the structural profile of the process of balancing constitutional principles, I look to the corresponding balancing of public and private interests at stake in an administrative discretional decision-making process.

3. THE "MODERATION FACTOR" THEORY

I argued above that administrative discretion must refer to the specific public interest in question and, in relation, that the law confers to an administration the power to fully satisfy it. With respect to this, I define a public interest as a *dynamic and dialectic entity* determined through a comparison of multiple private interests that have arisen in the context of the case to be decided.

First, the public interest must be identified; this is, namely, the *primary interest* since in the case to be decided, there are involved a number of further private interests that appear as *secondary* in relation to the public interest. In the presence of such a composite reality, the exercise of administrative discretional power consists of a comparison between the primary interest and all secondary interests. In this sense, administrative discretion is a *comparative weighing* of many secondary interests in relation to a single primary interest (cf. West, 1984, 343).

In my view, the law of balancing, even if it specifically concerns conflicts between constitutional principles, is also fully applicable to the balancing of primary and secondary interests within the administrative decision-making process. More specifically, the secondary interests may be legitimately sacrificed within narrow limits to satisfy the primary (public) interest, so that the secondary interests will be sacrificed—according to the law of balancing—only insofar as the pursuit of the primary interest justifies, in terms of proportionality and reasonableness, the compression of the secondary interests involved under the circumstances of the case to be decided: the greater the importance of the primary interest, the greater must be the sacrifice imposed on the secondary interests involved.

As just noted, this introduces my formal theory of the primary interest "moderation factor". I argued above that discretional power consists of a reasonable comparison between the primary interest and secondary interests, and that the administration in its evaluation should pursue the primary interest while sacrificing to the least extent possible the secondary interests connected with it, as in the balancing process for constitutional principles.

My formal model takes as its starting point the aforementioned theory of the "weight formula" by Robert Alexy, borrowing some concepts. Firstly, my theory provides the interaction between the degree of intensity of the primary interest (namely, I_{PI})—which is always high—and the concrete weight (W_{SI}) of the secondary interests (I_{SI}) involved in the case to be decided. As in Alexy's model, I assign to each element a value according to a progressive triadic geometric scale (namely 1, 2 and 4). Consequently, since the degree of

importance of the primary interest (I_{PI}) is always great, it will receive the highest value on the scale (that is, 4).

Secondly, the evaluation process provides a comparison between different hypothetical outcomes and the choice of the one with the least impact possible on the primary interest.

I argue that the result of the *proportional weight* of all of the secondary interests involved (W_{SI}) is a *moderation factor* for the primary interest. This proportional weight corresponds to the *geometric mean* (since, in this case, the triadic scale is geometric) of all of the values expressed by the degree of intensity of every single secondary interest (I_{SI_x}):

$$W_{SI} = \sqrt[N]{\prod_{x=1}^{N} I_{SI_x}} = \left(\prod_{x=1}^{N} I_{SI_x} \right)^{\frac{1}{N}} \tag{8}$$

From this, follows the "formula of moderate primary interest", which consists of the quotient of I_{PI} and W_{SI}:

$$PI_{\mathrm{mod}} = \frac{I_{PI}}{W_{SI}} \tag{9}$$

where PI_{mod} is the primary interest concrete weight, I_{PI} is the degree of intensity of the primary interest (that is, its abstract weight) and W_{SI} is the result of all of the secondary interests' proportional weight.

In case of multiple primary interests at stake there should be a balance between them, as it happens for the secondary interests (W_{SI}). In that case, the I_{PI} value will become W_{PI}. In this contribution, however, I present my model in a simplified manner, assuming the presence of a single public interest at stake.

In my view, therefore, the concrete weight of the primary interest, that is, the weight of the primary interest under the circumstances of the hypothetical solution to be adopted, is a numerical value expressed by the quotient of the abstract weight (always severe) of the primary interest's and the secondary interests' concrete weight, represented by the geometric mean of the degree of intensity of each secondary interest involved. Hence, across a range of all compatible solutions, the administration must prefer the solution with the lowest "impact" on the public interest—that is, the solution that offers the highest value of the moderate public interest (PI_{mod}).

In other words, assuming a case to be decided, the administration identifies the interests at stake and puts forward several hypothetical solutions that might resolve the problem. In each hypothesis, of course, a secondary interest can assume a different value (but the primary interest is the maximum in each case).

For example, supposing an expropriation procedure, the administration identifies four secondary interests—that is, the interests of the owners of the lands to be expropriated—and finds two possible outcomes, giving to every interest (I_{SI_x}) the corresponding triadic value:

<div align="center">

Scenario 1   *Scenario 2*

$I_{SI_1} = 1$ $I_{SI_1} = 2$

$I_{SI_2} = 4$ $I_{SI_2} = 1$

$I_{SI_3} = 1$ $I_{SI_3} = 2$

$I_{SI_4} = 2$ $I_{SI_4} = 1$

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As already mentioned, in every decision, the primary interest (I_{PI}) will take the maximum value (namely, with reference to the triadic scale adopted, 4), so that the first hypothetical outcome has the following results:

$$W_{SI} = \left(I_{SI_1} \cdot I_{SI_2} \cdot I_{SI_3} \cdot I_{SI_4}\right)^{\frac{1}{N}} = \left(1 \cdot 4 \cdot 1 \cdot 2\right)^{\frac{1}{4}} = \mathbf{1{,}68} \qquad (10)$$

and with $W_{SI} = 1.68$, PI_{mod} is:

$$PI_{mod} = \frac{I_{PI}}{W_{SI}} = \frac{4}{1{,}68} = \mathbf{2{,}38} \qquad (11)$$

For the second hypothetical decision, instead, it goes:

$$W_{SI} = \left(I_{SI_1} \cdot I_{SI_2} \cdot I_{SI_3} \cdot I_{SI_4}\right)^{\frac{1}{N}} = \left(2 \cdot 1 \cdot 2 \cdot 1\right)^{\frac{1}{4}} = \mathbf{1{,}41} \qquad (12)$$

and with $W_{SI} = 1.41$, the value of PI_{mod} in this case is:

$$PI_{\text{mod}} = \frac{I_{PI}}{W_{SI}} = \frac{4}{1,41} = \textbf{2,83} \tag{13}$$

In my example, therefore, the administration will prefer the second outcome—that is, the solution that proposes a higher value (2.83) for the primary interest than for the other one (2.38).

In this terms, the properties of the geometric mean are more desirable than the properties of any other function, for example, the arithmetic mean. One property, for example, is that this model will prefer scenarios where there is a wider rather than a narrower range of degrees of interference: thus {4,4,1,1,1} is preferred to {2,2,2,2,2} using the geometric mean, whereas the arithmetic mean yields the opposite result.

Supposing now that one is faced with these two hypothetical outcomes:

<center><i>Scenario 3   Scenario 4</i></center>

$$I_{SI_1} = 4 \quad I_{SI_1} = 1$$

$$I_{SI_2} = 1 \quad I_{SI_2} = 4$$

$$I_{SI_3} = 4 \quad I_{SI_3} = 2$$

$$I_{SI_4} = 2 \quad I_{SI_4} = 4$$

In this case, PI_{mod} has the same value (1.68), so that the administration will not prefer one solution over the other:

$$W_{SI} = \left(I_{SI_1} \cdot I_{SI_2} \cdot I_{SI_3} \cdot I_{SI_4} \right)^{\frac{1}{N}} = \left(4 \cdot 1 \cdot 4 \cdot 2 \right)^{\frac{1}{4}} = \textbf{2,38} \tag{14}$$

$$W_{SI} = \left(I_{SI_1} \cdot I_{SI_2} \cdot I_{SI_3} \cdot I_{SI_4} \right)^{\frac{1}{N}} = \left(1 \cdot 4 \cdot 2 \cdot 4 \right)^{\frac{1}{4}} = \textbf{2,38} \tag{15}$$

$$PI_{\text{mod}} = \frac{I_{PI}}{W_{SI}} = \frac{4}{2,38} = \textbf{1,68} \tag{16}$$

In other words, given a number of alternatives that are all abstractly compatible, the administration will choose the solution that will achieve the primary interest

to the greatest extent possible, ensuring its maximisation and at the same time the comparative weighing of all of the secondary interests deserving protection. Therefore, my model should be used to rationally control discretional decisions as intuitive choices since the reasonableness and proportionality of the weighing process for the interests at stake are subject to judicial review in order to avoid arbitrariness in the administration's choices.

It must be noted that the model set out above is not descriptive of actual administrative reasoning practice: my "moderation factor theory" is a propose of a formal argument scheme of administrative discretional decision-making. Moreover, my model can be implemented in a computer system to handle very complex situations and a significant number of interests at stake, ensuring at the same time the rational control of the decision.

4. REASONABLENESS AND COMPLETE EVALUATION

It should be noted that the primary public interest must be derived from the principles of the entire normative system, into which the rule giving to an administration the discretional power of choice is inserted. However, it is wrong to assume that the secondary interests are instead clearly and specifically identified by a single act. Thus, the question is: how should the administration identify the secondary interests that are "moderating" the primary interest?

There is a proportional relationship between the exercise of discretional power and the completeness of the evaluation of the interests: the more specified are the latter, the more rational are the former. In this way, I suggest that secondary interests should not be assessed by the administration but that must be brought into the administrative decision-making process by the same individuals who hold these private interests. Moreover, a comparison between various interests tends to avoid the total sacrifice of the secondary interests to the exclusive benefit of a primary interest, but this requires that every private interest holder outline his/her reasons in order to make the evaluation as complete and accurate as possible.

Particularly, an administration can build an on-line digital framework to which the holders of the private interest can submit their situation to be evaluated. It seems clear that a hypothetical on-line framework can provide a special protection to citizens, giving the holders of the private interests the opportunity to outline their reasons as fully as possible to the administration, before its decision. The effectiveness of balancing depends on this outlining, which can

be done only by the interests' holders; their participation is an important opportunity to ensure the protection of all of the interests at stake.

In relation to all of the considerations mentioned so far, my model can be useful in the context of the *e-gov* discretional decision-making process as an instrument to facilitate the complete discussion and evaluation of the interests at stake, both primary and secondary. This could be a tool for ensuring good performance, fairness and reasonableness in administrative discretional decision-making.

5. CONCLUSION

In this article, I have tried to establish two main theses. The first is that administrative discretion, as a reasonable choice between competing public and private interests, corresponds with the balancing of constitutional principles. Accordingly, an administrative discretional decision faces a conflict that cannot be solved using any predetermined criteria, and it is necessary to establish an axiological hierarchy between the competing interests.

The second thesis concerns the formal model for the reasonableness of an administrative discretional decision. Working from Robert Alexy's approach, I introduce a new quantitative method to rationalise weighing alternatives outcomes.

In conclusion, I also argued that my model can provide a framework for better governing competing interests, improving the reasonableness of an administration decision. In this way, we can see the difference between discretion—as a reasonable and balanced choice—and free will.

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