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Doing justice to rights and values: teleological reasoning and proportionality

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Abstract This paper studies how legal choices, and in particular legislative determinations, need to consider multiple rights and values, and can be assessed accordingly. First it is argued that legal norms (and in particular constitutional right-norms) often prescribe the pursuit of goals, which may be in conflict one with another. Then a model of teleological reasoning is brought to bear on choices affecting different goals, among which those prescribed by constitutional norms. An analytical framework is provided for evaluating such choices with regard to possible alternatives. The assessment of legislative choices according to proportionality is then considered, and is modelled using the provided analytical framework. Finally, the framework is expanded to include the ideas of reasonableness and institutional deference, and the corresponding margins of appreciation.

Keywords Argumentation · Proportionality · Teleological reasoning · Values · Norms · Constitutional review

1 Introduction

Justice concerns interpersonal relationships, it is the virtue towards others (*virtus ad alterum*, see Aquinas 1947, Question 58), but doing justice in interpersonal relationships requires making choices that best respond to all the *valuable human interests* at stake, both individual and collective, namely, all interests that deserve (legal) protection. Consequently doing justice seems to involve two aspects,

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maximisation and balancing: a just choice should maximise the benefit resulting from the aggregation the choice's impacts on the relevant interests (maximisation), taking into account the relative importance of these interests (balancing). Since values often compete against one-another (often they cannot be jointly maximised), achieving the best overall outcome, i.e., a *balanced maximisation*, may require diminishing the satisfaction of some values in order to advance the satisfaction of others values. Note that here I use the term *valuable interest* or *value* tout court in a generic-neutral sense, to mean any state of affairs, concerning an individual or a community, that deserves to be advanced or secured. In a liberal society the valuable interests will mainly consist in the possession of opportunities for individual choice and action (individual freedom of speech, occupation, sexual orientation, etc.), a possession to be guaranteed against all interferences.

The idea that legal reasoning involves a kind of maximisation can be connected to various significant legal traditions, such as Jeremy Bentham's normative link between law and utility, Rudolph Jhering's idea that legal thinking is fundamentally goal-oriented, Oliver Wendell Holmes and Roscoe Pound's instrumentalist approaches to the law, Philip Heck's idea that legal decision-maker has the task of assessing conflicts of interests, Llewellyn's and the other realists' focus on the social functions of legal rules. It also matches the recent focus on proportionality in constitutional and administrative review, i.e., the idea that public decisions (as embodied in legislative and administrative acts) can be assessed by establishing whether they reflect the relative importance of the values at stake, according to appropriate comparative standards (Alexy 2002). The idea of justice as maximisation can also be linked to certain approaches within law and economics, which have established descriptive and prescriptive connections between the law and certain aggregate outcomes, such as maximisation of efficiency (Posner 1983) or welfare (Kaplow and Shavell 2002).

Here I shall adopt a pluralist approach to legal values: I assume that legal norms require the advancement of different valuable interests, pertaining to different individuals. Thus I shall not attempt at reducing legal values to a single overarching good, nor to a single quantity, even though I will assume the possibility of comparing choices having differential impacts on different values. I shall also not take a stand for legal instrumentalism: I am not claiming (nor denying) that legal norms are to be interpreted or constructed in such a way as to serve certain purposes, I am only assuming that some norms prescribe the pursuit of certain goals (interests, values).

In considering the role of balanced maximisation in decision-making I shall focus on constitutional review. I shall argue that legislative decision-making can indeed normatively be viewed as an exercise in balanced maximisation, and that judicial review can be viewed as implementing constraints on this exercise. Some normative constraints are external to the teleological structure of the legislator's task: to assess whether the legislator has violated such constraints, we just need to match them to the outcome of the legislative decision, or to the process leading to that decision. Other constraints, on the contrary, address the legislator's teleology, i.e., they address legislation as an exercise in balanced maximisation: to check whether these constraints have been violated we need to consider whether a certain value has been adequately taken into account, whether justice has been done to it.

However, a margin of appreciation needs to be recognised to legislative teleology, on grounds of institutional deference. For this purpose the notion of reasonableness can be used: legislative choices that, according to the reviewer, fail to achieve the best outcome, can still stand when they remain within the domain of the "reasonable". Consequently, I shall argue that the idea of reasonableness, when used as a standard whose violation justifies judicial review, should be construed taking into account the need to assess legislative choices involving balanced maximisation, while avoiding excessive interference in such choices.

I shall use some elementary logical and mathematical notations for explaining, clarifying and defining the notions I shall introduce. This is not meant to suggest that one can usually balance competing legal values through numerical computations. On the contrary, there is no alternative to trained intuition supported by good arguments, but a simple formalism can clarify various points.

Some of the issues addressed in this paper have already been discussed in the AI & Law research, which has focused on ways of embedding aspects of teleological reasoning in computational models of legal argumentation (see for instance: Berman and Hafner 1993; Bench-Capon and Sartor 2003; Chorley and Bench-Capon 2003; Hage 2004; Bench-Capon and Prakken 2009). This paper has a different focus: it aims at complementing such inquiries by providing a broad account of the legal-theory issues involved in teleological reasoning, especially at the levels of legislation and adjudication.

2 Action-norms and goal-norms

I shall argue that justice as balanced maximisation of valuable interests is compatible with the idea that the application of the law consists in enforcing normative constraints, since, beside legal norms requiring specific actions to be accomplished, there are norms specifying values, i.e., goal to be advanced. Establishing compliance with the latter requires addressing the internal structure of teleological decision-making. This issue has emerged in legal theory in connection with the attempts to characterise the notion of a principle, in particular, in the work of Robert Alexy, who proposes a notion of a principle as an optimisation command (as argued extensively in Alexy 2002, Chap. 3). Without entering the controversial issue of establishing the nature of legal principles (I shall not use here the term "principle"), Alexy's main idea can be expressed by distinguishing two kinds of norms:

- action-norms, requiring the full accomplishment of a certain action or omission (as a matter of obligation, or as the condition for the validity of a certain act);
- goal-norms, requiring the appropriate pursuit of certain objectives.

The first kind of norms has the form "(given conditions C), x should accomplish (omit) action α". The second has the form "x should aim at goal g". As examples of the first kind consider the constitutional norm "citizens must not be detained for more that 48 h without a judicial warrant", the traffic rule "when driving through a town, drivers should not exceed the speed of 50 km per hour", or the administrative rule "all decisions of the director or the Environmental Agency shall be approved by the

Environmental Board". As examples of the second kind of norms consider the constitutional norm "the Republic shall promote science and culture", the administrative rule "the Environmental Agency shall promote the quality of agricultural water", or the family law rule "parents shall provide education to their children".

The two kinds of norms I have distinguished play different roles in decision-making. While action-norms are meant to override and constrain the teleological determinations of the concerned agent (namely, the reasoning through which one chooses plan of actions to achieve one's ends), goal-norms are meant to provide input to teleological decision-making. The first kind of norms corresponds somewhat to Raz's idea of an exclusionary reason (Raz 1975), with regard to teleological reasoning: an action-norm is *teleology-excluding* in the sense that it is meant to override the teleological reasoning which might have lead the agent to choosing not to perform that action, and thus to exclude (or rather to make irrelevant) the grounds (the goals) which would have led the agent to such a choice. For instance the prohibition to detain citizens for more that 48 h without a judicial warrant overrides teleological reasoning which could have lead to a longer detention: all reasons relevant to that conclusions become irrelevant to a law-complying agent. On the contrary goal-norms are *teleology-governing* reasons: they do not exclude but rather govern teleological reasoning by requiring reasoners to include a certain objective in their teleological reasoning (or to exclude it from that reasoning), giving it a certain relevance. Obviously, goal-norms are also exclusionary in the sense that they exclude the choice not to include that objective in teleological reasoning, but still they are not *teleology-excluding* but rather *teleology-governing*. For instance the norm requiring an environmental agency to take care of the quality of agricultural water requires the agency to take the goal of advancing the quality of agricultural water into account, alongside with other relevant goals (reducing air pollution, preserving the local flora and fauna, enabling the economic viability of local farms, etc.). Similarly, the requirement that a public servant does not take into consideration her private interests, or the interest of her friends in her decision-making, does not prevent her from making teleological choices (choices inspired by the public objectives she has to advance, like environmental protection for someone working in an environmental agency), but limits the admissible inputs to such choices.

The action-norm/goal-norm dichotomy does not coincide with other dimensions according to which we can classify legal norms. First of all it must be distinguished from the opposition between defeasibility and indefeasibility, which concerns the extent to which a norm is susceptible of being overridden by reasons against its application in particular cases. Action-norms too can be defeasible: a contractual default may not applicable if the parties express a different intention, a speed limit may be inapplicable when a car race takes place in an urban circuit or may be defeated when one is rushing for an urgency to the hospital, excuses provide exceptions to criminal and civil liability, etc. On the other hand, norms establishing goals may be quite strict: an environmental agency not acting out of environmental concerns would violate the law.

Secondly, the action-norm/goal-norm dichotomy must be distinguished from the opposition between determinacy and indeterminacy, which concerns how precisely

a norm characterises the requested behaviour and its circumstances. Even action-norms can be very indeterminate: consider for instance the obligation to act in good faith, or not to damage others recklessly. However, there is connection between indeterminacy and teleology, to the extent that the content of an indeterminate norm can be filled on the basis of teleological consideration (as when the notion of recklessness is determined with reference to the objective of minimising social costs).

The distinction between action-norms (action-duties) and goal-norms (goal-duties) overlaps with another significant distinction, namely, the distinction between a yes/no state of affairs and a scalable state of affairs: action-duties concern the realisation of yes/no states of affairs, while goal-duties concern the realisation of scalable states of affairs. A yes/no state of affairs either obtains or does not obtains, while a scalable state of affairs may hold to different extents. For instance, while being a citizen is a yes/no state, being free or unfree is a scalable state of affair (since this is a function of the number and quality of the options within one's reach). When two conflicting duties concern the realisation of yes/no states of affairs, preference should be given to one duty to the exclusion of the other (this is the domain of defeasible reasoning). By contrast, when two duties concerning scalable goals are in conflict (both goals cannot be jointly maximised), the best compromise usually requires that neither of them be completely neglected to the advantage of the other (given that the satisfaction of values provides a decreasing marginal benefit, see Sect. 10). A goal-duty (the duty not to distress people when they are questioned or detained) can become an action-duty below a certain threshold (the duty not to torture people).

From the perspective here developed goal-duties do not need to be agent-neutral: an agent may also have the goal to act as much (or as little as possible) in a certain way, and this can be an objective concurring to determine the agent's teleological reasoning. For instance a government may pursue (possibly according to the prescription of a constitutional norm) the goal of interfering as little as possible with a citizen's freedom of speech (a citizen's right to be interfered in his or her freedom as little as possible by state authorities). The goal-norm requiring government to take this goal into account as one of the objectives of its teleological reasoning must be distinguished from the action-norm prohibiting government from interfering with citizens' freedom of speech. The goal-norm would find its application in situations where the action-norm is not to be applied, since conditions exist for limitation to freedom of speech, so that the goal of limiting government's interference has to be balanced with competing objectives (preservation of public order, morality, dignity, avoiding offences to dignity and the diffusion of racial and ethnic hatred, etc.).

3 Right-norms

I shall here consider whether right-conferring norms may be viewed as goal-norms rather than as action-norms, i.e., as teleology-governing reasons (requiring the legislator to include in his teleological reasoning the objective of advancing the right) rather than as teleology-excluding reasons (requiring the legislator to act consistently with the right, disregarding any reason not to do so).

On the traditional view that a right protects an individual interest (the so-called benefit-theory of rights, advanced by authors such as Jeremy Bentham and Rudolf Jhering) two components are entailed by the statement that "*j* has a right to ω toward *k*", where *j* is the beneficiary of the right, *k* is the counterpart, and ω is the interest protected by the rights (for a logical analysis, see Sartor 2005):

- An axiological component. The law positively values the situation where *j* enjoys ω, it characterises *j*'s enjoyment of ω as a valuable individual interest, namely, as a valuable opportunity pertaining to particular individuals separately considered (my freedom to speak, your freedom to speak, etc.).
- A guarantee component. There exist guarantees aimed at facilitating *j*'s enjoyment of ω enjoyment, which bear upon counterpart *k*, guarantees that may be specified in other norms or may have to be argued from general principles.

First of all, the guarantees of *j*'s right include a mere (unprotected, naked) permission toward *k*: *j* is permitted to have ω as far as *k* is concerned (i.e., it is not the case that *j* is prohibited from having ω, for the sake of *k*).

Secondly, the guarantees of *j*'s right may include *k*'s duty to take into account the goal that *j* has ω, giving this goal an appropriate relevance (e.g., the duty to consider freedom of speech when introducing a regulation aimed at protecting privacy). This abstract goal-duty (an imperfect duty, in Kant's terminology, see Sen 2004) can be specified by distinguishing different ways of contributing to this goal, which have different degrees of urgency: (a) the duty not to prevent *j* from having ω (e.g., a duty not to prevent a person from freely expressing his or her opinion); (b) the duty to ensure that others do not interfere with *j*'s having ω (e.g., a duty to protect a person against attempts to prevent him or her from expressing an opinion); (c) the duty to ensure that *j* has the means to enjoy ω (e.g., a duty to provide access to the media). While these duties indicate ways of acting of their addresses, they can still be seen as goal-duties: they prescribe their addressees the scalable goal to act in these ways as much as possible, compatibly with the pursuit of other legitimate goals.

Thirdly, the guarantees of *j*'s right may include specific action-duties upon *k*. For instance, with regard to freedom of speech toward the government, the duty not to prevent the exercise of the right can also be viewed (in liberal regimes) as a perfect action-duty (prohibiting government from taking any action restricting with individual freedom of speech, unless grounds exist for a legitimate limitation), while the positive duties to prevent interferences by others and to provide resources can only be viewed as goal-duties, at this level of abstraction. These goal-duties may be accompanied by specific action-duties, which emerge when a legal norms establishes the obligation to achieve the goal in a certain way or up to a certain threshold (e.g., a norm requiring that the State shall give to all candidates to an election certain minimal financial resources to be used in their campaign).

Fourthly, the right-related duties I have described are often accompanied by the right-holder's power to activate judicial enforcement when some of these duties are not complied with.

Fifthly, the various guarantees just described can be strengthened by what might be called, in Hohfeldian terms, a disability or incapacity, namely, by *k*'s inability to eliminate these protections: for instance when *j*'s right toward the State (e.g.,

freedom of speech) is established under an entrenched constitutional norm, not only the State needs to respect the right as long as it is established by the legislation in force (as for a citizen's right to a certain tax deduction), but the legislator would also be unable to eliminate or limit that right, unless by amending the constitution.

In order for a right to exist, it is not necessary that full protection be provided (as would result from the combination of all the duties I have introduced, plus the corresponding powers of enforcement and disabilities). The protection of certain rights (e.g., some social rights, such as the right to work or to housing) may only consist in a goal-duty, often not judicially enforceable through the right-holder's autonomous action. This would provide a lesser, but not irrelevant, protection of the corresponding individual interests (on how certain rights may only generate an obligation to take them into account in deliberation, see Sen 2004; for the contrary view that power of enforcement is essential to the notion of a right, see Kelsen 1967).

Some rights may operate in different ways with regard to different counterparts. For instance, the right to privacy may be protected by a negative action-duty with regard to administrative authorities, who are prohibited from using personal data unless specifically allowed by the law, but only as goal-duty with regard to the legislature, who can limit the protection of privacy through legislation, to advance other values such as security or freedom of information. Usually in the case of a constitutional right, a constitutional goal-duty directed at public authorities requires the right (the need to advance and protect it) to be taken into account in public decision-making, and this right is complemented by various action-norms, resulting from the interpretation of the constitution or from ordinary legislation, prescribing actions advancing the right or prohibiting actions that would impair it. Certain rights (such as social rights) may be protected only by a goal-duty at a constitutional level, complemented by action-duties at the legislative level (according to statutory norms granting certain social benefits to citizens).

The idea that constitutional rights identify valuable interests protected through goal-duties is consistent with the view that same rights may also be protected through a range of defeasible or even indefeasible action-norms. However, outside the domain where an action-norm is to be applied (e.g., the prohibition against torture), goal-norms (norms that required the pursue of values such as individual self-determination and integrity) would still operate. The view that constitutional norms prescribe goal-duties is also consistent with the assumption that certain individualised values (the enjoyment of civil and political liberties) carry more weight than other values, and in particular more than certain collective interests, as we shall see in the following.

4 Teleological reasoning

Since goal-norms provide input to teleological reasoning, for understanding their function we need to analyse this kind of reasoning, which constitutes the core of practical rationality (Nozick 1993, Chap. 5), and plays a fundamental role in political and legal problem-solving. Teleological reasoning basically consists in the

following: a reasoner that aims to achieve a certain goal constructs and tests possible options (plans of action) and then adopts one of those options once he or she is satisfied that it appropriately achieves the goal. Thus we can say that the fundamental step in teleological reasoning is the following: given that the reasoner has goal g and believes that option α is a teleologically appropriate way of achieving goal g, then agent chooses option α.

By a *teleologically appropriate way* of achieving a goal I mean a way that—though neither necessarily being optimal nor necessarily believed to be optimal—is (a) better than inactivity, and (b) not worse that any other plan the reasoner has been able to conceive so far through an adequate inquiry. In fact, believing that a better, incompatible option is available is a sufficient reason for abandoning the previous choice. This is rational since sticking to the old choice would imply a failure to achieve a superior result. Teleological appropriateness thus combines the idea of *satisficing* (Simon 1983, Chap. 3) with the idea of *critical cognition*. According to the first idea, we may justifiably act on the basis of a suboptimal choice: even when we know that our choice is suboptimal (we know that a better plan exists, though we cannot identify it), that choice may still be adequate to our needs. However, according to the second idea (critical cognition) teleological reasoning is inherently defeasible (see Pollock 1989, Chap. 5): if we come upon a better way to achieve our goals, before the inferior plan was implemented, then we should abandon the inferior choice.

Suppose, for example, that I have some money I intend to put in a bank and that the offer of bank b_1 provides the best conditions, among the offers I have collected so far. Suppose, further, that a financial expert, whom I consider to be both competent and sincere, tells me that she knows of a bank b_2 offering better conditions, but she will not tell me the name of bank b_2 (she gives this information only to her clients, and I do not intend to become one of them). Clearly, under such conditions, rationality commands me to choose bank b_1, even though I know that my choice is suboptimal. However, if I succeed, before making the contract, in coming to know which bank b_2 offers better rates, I should retract my intention to put my money in b_1 and should instead go for the more profitable deal.

Similarly, suppose I am a prosecutor, and I am convinced that the man in front of me has murdered a child, but the legal evidence I have only allows me to request his conviction for child pornography. Clearly, under such conditions, I should try to have him convicted for the latter offence. However, if before the end of the trial I come upon evidence supporting his conviction for murder, I should pursue this stronger count.

5 Decision-theory and teleological evaluation

When we have constructed a plan of action to achieve a certain goal, we need to evaluate the plan and decide whether to adopt it. This decision may require a comparison with alternative plans to achieve the same goal. The most abstract model for evaluating and comparing decisional alternatives is provided by decision theory (see, for all, Jeffrey 1983). Decision theorists usually assume that the value

of an outcome consists in a numeric measure, which is called the *expected utility* of that outcome. We should in principle choose the option that provides the highest utility, but this is a very difficult task, especially when we face *multiple* options, having different impacts of different goals, and when such options are *non-deterministic*, namely, they may lead to different outcomes depending on uncertain circumstances. Here I shall not take into account non-determinism (which would require me to address probabilities and risk aversion), but I shall focus on multiplicity, i.e., on the complexities related to the fact that multiple distinct goals may be relevant to a decision (non-determinism in legal choices is also important, but I must leave it to further research).

Decision theory provides ways to characterise mathematically both (a) the information on the basis of which a plan is to be evaluated and (b) the procedure that computes, on the basis of that information, the merit of the entire plan. In the simplest case, this is done by the following: (1) assigning a (positive or negative) weight to every relevant feature of the outcome; (2) quantifying the degree to which every feature will be satisfied by the expected outcome of a certain choice; (3) multiplying the degree of satisfaction of each relevant feature by its weight; and (4) adding the results that are obtained in step (3).

Unfortunately, in most legal cases (at least when constitutional adjudication is at issue), we do not have sensible ways for assigning numerical values for the level of achievement and the weights of the values at issue. Thus I shall not get into the mathematical methods for computing the impacts of alternative choices, and in particular into cost-benefit analysis, a well-developed discipline for the consequentialist analysis of policy choices, which can indeed be useful also for addressing some legal issues, especially when well-defined economic interests are at stake (for a technical account of multi-criteria decision-making, see Keeney and Raiffa 1993; for a discussion of foundational issues in cost-benefit analysis, from different perspectives, see Adler and Posner 2001). I shall also not consider possible simplifications of such mathematical methods, in order to make them practicable in the legal domain, such as the weight-formula proposed by Robert Alexy (see Alexy 2002, Postscript, and Alexy 2003b). I shall rather develop some considerations at the margins of the framework provided by cost-benefit analysis, to show that some elements of teleological rationality can be useful to make and assess legal decisions, even though usually we are unable to meaningfully quantify the importance of impacts on different values using a single measure (while often being able to reasonably assess and compare not only different impacts on one value, but also differential impacts of distinct values).

6 Limits of teleological reasoning

Teleological reasoning provides the pivotal link between epistemic and practical reasoning: (1) practical reasoning provides epistemic reasoning with goals, (2) epistemic reasoning constructs and evaluates plans according to one's likings and beliefs, and (3) practical reasoning adopts the determination to implement one of these plans (see Pollock 1995). However, due consideration should be given to the

practicability of teleological reasoning: teleological reasoning requires an enormous amount of knowledge, which often is not available. Such knowledge is required not only to address the formidable problem of planning (constructing plans) but also to compare and evaluate the constructed plans. Optimal planning seems indeed to exceed human cognitive powers in many contexts. For there to be a guarantee that a decision-maker will make an optimal choice, the decision-maker must succeed in both (a) constructing a set of candidate plans that includes the best possible one and (b) making the right choice among the constructed plans. In both regards, optimisation is often out of reach.

Firstly, we cannot consider all possible strategies for achieving certain objectives, and so we may fail to construct the best strategy. For example, in planning an out-of-town dinner, I may fail to detect the restaurant that is better suited to my tastes, since I am not aware of its existence. Similarly, consider how a legislature may fail to identify the most effective way to simulate economic growth, and so may adopt a wrong decision (for example, cutting taxes may trigger a recession and a huge deficit rather than favouring economic development, as expected), or how judges or legal scholars may fail to discover optimal solutions to the problems they are considering (for example, punishing certain crimes too harshly may impede rehabilitation and lead convicts to commit further, more serious, crimes).

Secondly, even when we have constructed the best plan (together with other candidate plans), we may not be able to realise that it is the best option, and so we may choose an inferior one. Failure to rank the available options according to their merit may depend either on our insufficient knowledge of the factual consequences of our choices or on our confused ideas about what ends should inspire our evaluations, and about their relative importance, in various possible situations. This makes it very difficult to assess the rationality of decisions impacting on different values by way of a combined assessment of resulting gains or losses. Consider for example, how difficult it is to assess the rationality of normative choices pertaining of Internet law, where the decision-maker has to balance such diverse values as privacy, freedom of information, individual , democracy, economic growth, and technological and scientific development (for some critiques on the use of teleological reasoning in the law, see for all Luhmann 1973 and Habermas 1999, 259).

Unfortunately, in many cases human reasoners have no alternatives to teleological reasoning. We thus need to recognise the importance of teleological reasoning in the legal domain while addressing its limitations, especially with regard to the problem of the evaluation of alternative options (for formal models embedding aspects of teleological reasoning in legal argumentation, see for instance, Hage 2004, Bench-Capon and Prakken 2009).

7 Pareto-superiority

I shall say that choice α is superior to choice β with regard to value v, and write $\alpha \succ^{v} \beta$, to mean that α satisfies v more than β does, i.e., that the level of achievement of value v resulting from option α is higher than the level resulting

from option β (and I shall use similarly, the symbols $\succeq^v$ for "superior or equivalent" and $\equiv^v$ for "equivalent"). For instance, if restaurant r_1 offers better wine than restaurant r_2, I shall say that the option ρ_1 is superior to the option ρ_2 with regard to wine, and write $\rho_1 \succ^{wine} \rho_2$. I assume this ordering over choices to be complete and transitive, with regard to any value (for all choices α and β and value v, either $\alpha \succ^v \beta$ or $\alpha \equiv^v \beta$ or $\beta \succ^v \alpha$, and for all choices α and β and γ and value v, if $\alpha \succ^v \beta$ and $\beta \succ^v \gamma$ then $\alpha \succ^v \gamma$).

The criterion of Pareto-superiority, as applied to choices impacting on different values, expresses the intuitive idea that α is better than β, if α is superior to β with regard to one value, and not inferior with regard to all other values. More exactly, given choices α and β and a relevant set of values $\{v_1, \ldots, v_n\}$, we say that α is Pareto-superior to β iff both of following conditions hold:

- there exists a value v_i in the set such that α is superior to β with regard to v_i (there exists a $v_i \in \{v_1, \ldots, v_n\}$ such that $\alpha \succ^{v_i} \beta$), and
- there exists no value v_j in the set such that β is superior to α with regard to v_j (for every $v_j \in \{v_1, \ldots, v_n\}, \alpha \succeq^{v_j} \beta$).

Pareto superiority entails superiority tout court: a rational agent should definitely prefer the Pareto-superior alternative (if α is Pareto-superior to β then $\alpha \succ \beta$). In other words would irrational to prefer β to α, knowing that α is superior to β in some regards and non-inferior in all other regards.

For instance, let us assume that the values at issue in choosing a restaurant for dinner consist exclusively in the quality of food, wine and service (we do not care about other aspects such as price, distance, etc.). If restaurant r_1 offers better food than restaurant r_2, and equal or better wines and service, then a rational agent should prefer the choice ρ_1 of dining at r_1 to the choice ρ_2 of dining at r_2, namely, the agent should consider ρ_1 superior to ρ_2 (given that $\rho_1 \succ^{food} \rho_2, \rho_1 \succeq^{wine} \rho_2, \rho_1 \succeq^{service} \rho_2$, food, wine and service being the only relevant values, we should conclude that $\rho_1 \succ \rho_2$).

Consider also a regulator's choice between these two ways of treating videos recorded by cameras located in streets having a high crime rate: (α) allowing the data to be kept only for a week after recording them; or (β) allowing the data to be kept for a year. Let us assume that while α is superior to β with regard to privacy ($\alpha \succ^{privacy} \beta$), while there is no difference with respect to the attainment of the value of security ($\alpha \equiv^{security} \beta$), one week being sufficient to check video recordings in connection with serious claims). Under such conditions, issuing a regulation which allows video footage to be kept for a year would be irrational (assuming the only relevant values are privacy and security): the alternative choice of allowing conservation for a week is recommended by rationality, being Pareto-superior (it would provide a higher level of privacy with no loss in security).

The idea of Pareto-superiority leads to the idea of *Pareto-optimality*: a choice α is Pareto-optimal if there exists no alternative choice β which is Pareto-superior to α. A choice α that is Pareto-suboptimal (i.e., which is not Pareto-optimal) is defective, since a better alternative β to α exists, and β should have been chosen instead of α.

The condemnation of Pareto-suboptimal choices needs to be attenuated with some considerations on the limitation on human rationality. It would certainly be irrational to choose α rather than β, knowing that α is Pareto-inferior to β. However, we may not know that α is inferior to β, since we may be proceeding on a mistaken appreciation of the impact of the two options on the values at issue. For instance, we may fail to recognise Pareto inferiority owing to our inability to take into account certain complex causal connections (as may happen with regard to choices pertaining to economic policy). When an epistemic mistake remains within the threshold of unreasonableness the resulting choice remains reasonable, though it may be recognised Pareto-inferior by an observer immune to the mistake.

8 Weighing alternatives

The idea of Pareto superiority does not help us in choosing between α and β when none of them is Pareto-superior to the other: α advances certain values more than β does (there exists a v_i such that $\alpha \succ^{v_i} \beta$), and β advances certain other values more than α (there exists a v_j such that $\beta \succ^{v_j} \alpha$). Consider, for example, the problem of making a choice between two restaurants r_1 and r_2, such that r_1 offers better food, r_2 provides better service, and all other relevant features are satisfied to the same degrees. Similarly, consider the problem of whether to allow video footage from street cameras to be kept for one day or for seven days, given that the one-day limitation yields a higher level of privacy but a lower level of security.

Under such conditions, a comparative analysis is needed that takes into account (a) the degree to which the values are satisfied by the different options and (b) the importance of these values. Choice α is better than choice β if the comparative gains relative to the values better promoted by α outweigh the comparative loss relative to the values better promoted by β. For instance, I should go to restaurant r_1 instead of restaurant r_2 if the comparative advantage in food quality outweighs the disadvantage in service quality. Similarly, footage should be deleted after seven days rather than after one day if the gain in security outweighs the loss in privacy. The difficulty, however, consists in finding a sufficiently precise characterisation of how one should rationally "weigh" such alternatives. It may be said that the weighing judgement depends both on the quantities that are gained or lost and on the importance of what is gained and lost, but this offers very little help to the decision-maker, for whom the problem is exactly that of establishing quantities and relative importance. Moreover, the importance of a gain or a loss does not only depend on the "quantity" of the value that is gained or lost (whatever is meant by quantity) and on the importance of the value at issue: it also depends on the level from which we measure a gain or loss. With many values, there are two distinct aspects to be considered: the quantitative measure of the value and the benefit (the impact on human well-being) of achieving that value up to that quantitative measure.

For instance, when buying an apartment, a valuable aspect to be considered is the spaciousness of the apartment, as measured by its surface area. However, even though the benefit of owning an apartment of a certain surface (all the rest being

equal) increases in proportion as surface does (this benefit being a monotonic function of the surface), this proportion is not fixed: while the additional benefit obtained by moving from 20 to 40 square meters is usually very important, the additional benefit obtained by moving from 200 to 220 is likely to be less significant. Let us consider now a more significant value, i.e., nutrition (the object of the right to food, much discussed nowadays by human-rights scholars) and let us assume that any intake below 2,000 calories is insufficient to sustain human health. A 1,000-calories drop below that minimum would thus constitute a very significant failure of nutrition (it would lead to starvation, and probably to death), whereas adding 1,000 calories on top of an already more-than-sufficient intake of 3,000 calories would not bring any additional benefit as far as nutrition is concerned.

A similar analysis would also apply to less-quantifiable values, such as liberty. Having a wider (more inclusive) set of options advances one's liberty. Suppose the following: (a) A_1 is strictly included in A_2 ($A_1 \subset A_2$), (b) A_1 contains 100 options while A_2 contains 110, and (c) the additional 10 options in A_2 have the same average significance as the options in A_1. We can then say that having the option-set A_2, rather than A_1, is significantly more beneficial as far as liberty is concerned. However, consider two sets of options A_3 and A_4, such that: (a) A_3 is strictly included in A_4 ($A_3 \subset A_4$), (b) A_3 contains 1,000,000 options while A_4 contains 1,000,010, and (c) the additional 10 options in A_4 have the same average significance as the options in A_3. In this case, the difference in the benefit provided by having A_4 rather than A_3 would be much less important, probably quite imperceptible. Finally, suppose that one has the possibility of choosing from a range of only 20 options (e.g., kinds of jobs one may aspire to), and that a piece of legislation reduces this range to 10 by eliminating 10 options previously available. This would certainly be a very serious inference in the core of one's freedom of employment. In Fig. 1 you can see the difference between a value providing a benefit that increases linearly (in a fixed proportion) relative to increases in the associated quantitative measure, and a value providing a benefit that increases

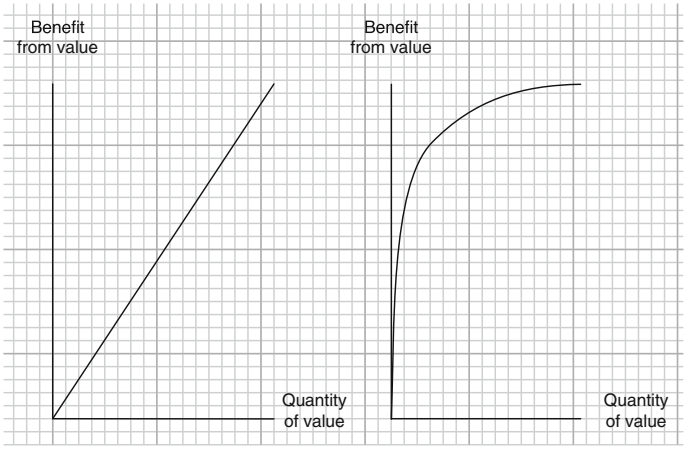

Fig. 1 Linear and non-linear increase in value satisfaction

non-linearly, bringing a diminishing marginal benefit (as represented by the curve). As Alexy (2002, Chap. 3, Sect. 2.2.2.3) observes, the latter pattern characterises not only economic goods (whose marginal utility usually diminishes, i.e., an additional unit of a good *G* brings less benefit when one has a larger quantity of *G*) but also legal values.

9 Teleological reasoning and norms

Teleological reasoning and norms interact in various ways. First of all we need to go back to the distinction between action- and goal-duties. A norm establishing an action-duty addresses possible outcomes of teleological reasoning: it provides a determination that either makes teleological reasoning irrelevant, or constrains it. Consider again the restaurant example, and assume that Adam and Eve have agreed that Eve will choose the restaurant where to go, and that she says: "Tonight we shall go to restaurant r_1". For Adam, who accepts Eve's authority, this determination puts an end to teleological deliberation: the choice has been made, and though nothing prevents Adam from speculating on where he would prefer to go, this has no practical significance. In the terminology of Raz (1978), we can say that Eve's determination operates as exclusionary reason: even though Eve's choice is a fallible way to achieve certain values (quality of food, of wines, service, etc), Adam cannot (while recognising Eve's authority) disregard her determination on the basis of a different comparative assessment of the those values (for Adam food is more important that wine, while for Eve the opposite is true, so that were he in power, he would have chosen r_2, providing better food but worse wines) or on a different assessment of the facts at issue (contrary to Eve, he believes that r_3 provides better wines that r_1). Eve could also use her power to issue action-norms to constrain the admissible outcomes of Adam's teleological determination, rather than to substitute it, i.e., by saying "we may go wherever you like, except in r_1", or "wherever you like, as long as it is an Italian restaurant", or "wherever you like, as long as it is not an Italian restaurant".

Similar considerations apply also to legal rules establishing action-duties. For instance, if a constitution requires that nobody can be detained for more than 48 h without a judicial warrant, those recognising the authority of the constitution (legislators and judges in particular) should not disregard this rule on the basis of the value of security (even when they believe that the constitution is wrong, e.g., that it should have established for detention a longer term, on the basis of on a better balance of the values at stake): the constitution made its teleological assessment concerning the way to balance security and freedom, excluding certain possible decisions, and respecting the constitution means respecting the outcome of assessment.

On the contrary, a norm establishing a goal-duty is not meant to substitute teleological reasoning or to constrain its outcomes, it is meant rather meant to supplement, and direct it. Consider again the restaurant example, and assume Eva uses her power to say: "In choosing where to go tonight we shall take into account also how near the place is, since I am quite tired". This, clearly, is not meant to substitute teleological reasoning, or to indicate an excluded outcome, but rather to

provide an input to teleology. It does not mean that nearness is the only criterion: Adam can comply with this command also by choosing a restaurant r_1 somewhat further away than another restaurant r_2, as long as r_2's superiority in other regards outweighs r_2's proximity. On the other hand, Eve might say "What I care most, is that we go to a place where they have good wines". This would mean that the quality of wine should be given an important weight in the teleological assessment, higher that the weight attributed to any other factor. She may also say that certain values are not relevant to the choice, they should not be considered: "In choosing where to go tonight do not consider how near it is, I do not mind driving", or what are the only values relevant to the choice "Choose the restaurant which provides the best music, tonight I cannot care less about the rest (food, wines, price, etc)".

Similarly a constitutional norm may oblige the legislature to uphold a certain value (in particular, a right), according to its constitutional importance. The constitutional value should be taken into account, jointly with other constitutional values, whenever it is relevant: for instance, if individual privacy is such a value, it should be taken into account in choices inspired by other, possibly conflicting values, such as security or freedom of speech. Certain constitutional norms may give additional protection to a value v by constraining teleological reasoning involving v, e.g., by limiting the circle of the values whose pursuit justifies limitations of v or limiting the extent of such limitations. For instance, a norm may state that speech may be limited only to maintain public order and morality, and not, say, for promoting scientific progress (consequently the promotion of scientific progress could not justify a ban on advocacy for creationism or homeopathy).

Note that teleological reasoning is not irrelevant to action-duties: teleological considerations contribute to the interpretation/construction of action-norms (for instance, considerations pertaining to the need to minimise the cost of accidents can guide the interpretation/construction of norms on liability for negligence). However, action-norms (even when constructed on the basis of teleological considerations) are not meant to regulate how their addressees engage in teleological reasoning, they rather to constrain the admissible outcomes of such reasoning (by requiring or prohibiting certain courses of action). On the contrary goal-norms directly prescribe to their addressees the pursuit of certain collective or individual values (e.g., culture, privacy, freedom of speech), and complying with these norms requires taking account of these values though teleological reasoning.

On the other hand, action-duties are not irrelevant to teleological reasoning: they restrict the set of choices (of actions) that teleological reasoning can permissibly make. In the following when considering possible teleological choices, I will implicitly assume that such choices are limited by the applicable action-duties, at the appropriate level (in particular, that the pursuit of constitutional goals is limited by the relevant constitutional action-norms).

10 Legislative choices and values

In what follows, the foregoing analysis of teleological reasoning shall be brought to bear upon legislative choices. That legislators pursue certain policies (certain social

goal) is obviously true, but it will be useful to sketch a simple normative model of how this may happen (being the model normative, I shall not address the issue of what self-interested pressures may also determine legislative activity). Legislators (supported by their staff, communicating with their constituencies, participating in political debate inside and outside the legislative body) need to first detect a problem-situation, namely, a social arrangement that appears to be defective, expressing an unsatisfied social need that they think should be addressed. On the basis of an empirical analysis, they should identify more precisely the problem-situation and the social behaviour characterising it. This will enable them to establish what goal should be pursued through legislation in that situation. Having identified the goal to be pursued they should engage in teleological reasoning in order to decide how (through which legislative measure) to achieve it.

For instance, let us consider a problem now being discussed by the Italian legislature: a very high number of private telephone communications are wiretapped under police investigations, and the content of such communications often winds up being published in the media, with serious prejudice to its author. Let us assume that the legislators aim at protecting privacy with regard to communications wire-tapped under crime investigations, and engage in teleological reasoning in order to draft and adopt a new regulation achieving this goal. For this purpose, an empirical analysis is required aimed at understanding how possible measures will impact on the values at stake: not only privacy, but also freedom of speech, freedom of the press, publicity (and the consequent public control) of judicial activities, repressing and hence preventing crimes, and limiting the costs of judicial inquiries. For instance, an absolute and unconditional prohibition against wiretapping in crime investigations would advance privacy protection, and would leave freedom of speech untouched, but would seriously limit the possibility of identifying the authors of many crimes, especially those carried out by organised crime rings. It would reduce to zero the costs of wiretapping, though different kinds of investigations may be required instead of it, possibly more expensive ones. By contrast, an unconditional wiretapping authority conferred on every prosecutor in investigations concerning any kind of crime, coupled with an unlimited authority to distribute and publish the wiretapped conversations, would advance the likelihood of preventing crimes (assuming that prosecutors were able to devote their resources to the most effective investigations, on the basis of a correct cost-benefit analysis) and would emphasise freedom of the press. Such considerations need to be based on empirical analyses that will take into account the complex social connections at issue.

It is not sufficient to consider only law in the books; analysis has to extend to law in action. Legislators need to evaluate the probability that that the applicable penalties fail to deter unwanted behaviour, so that compliance will not be achieved: will a fine imposed on officers and journalists succeed in deterring them from communicating and publishing wiretapped conversations? They must also consider the chance that the legal process is used for deterring legitimate actions: will journalists be deterred from publishing legitimate information concerning legal proceedings of powerful people, fearing the costs and uncertainties of judicial proceedings? Moreover, they need to extend the analysis from the immediate social

effects of the intended legislation to its indirect effects: what consequences would the increased impunity, consequent upon the impossibility of using wiretapping in investigations, have on certain kinds of criminality, such as political corruption, extortion and racketeering, or drug trafficking?

In some problem domains, as when economic policy is involved, the empirical predictions required to establish the likely outcome of certain measures are very difficult and questionable, being dependent on much-debated theories: will a tax cut boost investment, will it improve or worsen the condition of the poor? After considering some alternative measures aimed at solving the problem (not all possible measures, since this would exceed human capacities), legislators will need to compare such measures and write into law the measures they believe will have the best combined impact on all the values at stake, according to their assessments of the importance of these values.

11 Impacts on values

Legislative choices may affect different values: both those selected by the political process (the policy-goal of the legislature) and those indicated by constitutional goal-norms.

These impacts are to be evaluated by considering the importance of reaching a value up to a certain point, an aspect addressed in Fig. 2, which shows the connection between the satisfaction of a scalable value and the benefit it provides. When a value has a decreasing marginal utility diminishing its satisfaction determines an increasingly significant loss in the benefit deriving from it. We reach a point, the *core threshold*, such that any further diminution in the satisfaction of the value determines a benefit loss that is unlikely to be compensated by gains provided by a greater achievement of other values. The portion of the value line to the left of the threshold is what may be called the value's core or nucleus. On the other hand, when the level of achievement increases, we come to a point such that any further

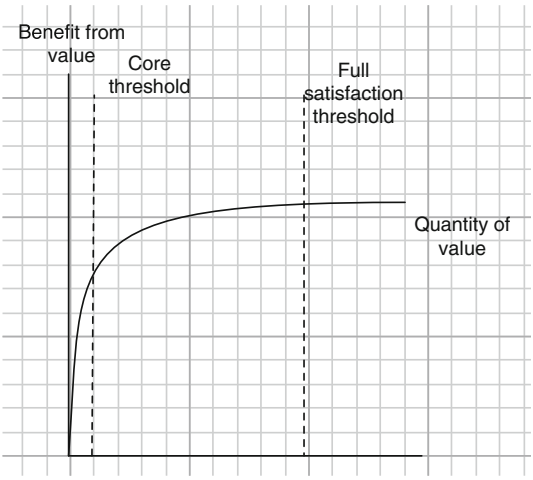

Fig. 2 A satisfaction-curve for a legal value

increase will have little importance. The portion of the value line to the right of this point represents situations where the value is achieved at a fully satisfactory level, so that any further increase, though still positive, may not come within the scope of a legal obligation to advance that value.

Figure 3 compares the satisfaction curves for two different values (e.g., v_1 may be security and v_2 privacy). Let us assume that the two values are competing, i.e., in the sense that advances in one of them can be achieved at the expense of a diminution in the other.

On the basis of the graphs in Fig. 3 we can say that value v_1 is more important than value v_2: at the same level of satisfaction, v_1 provides a higher benefit than v_2. However, this does not mean that any advance in the satisfaction of the more important value would compensate any diminution in the less important one. Given two choices α and β, such that α advances v_1 at the expense of v_2 and β advances v_2 at the expense of v_1, the fact that v_1 is more important than v_2 does not entail that α is preferable to β: we also have to consider the differential benefits that are determined by the advances and diminutions at issue. For instance, assume that choice α (e.g., an authorisation to the police to intercept all Internet-based communication) determines an advance in security from 10 to 13 in Fig. 3 and a corresponding diminution in privacy from 10 to 2. Even if security were more important than privacy, this advance in security would only determine, according to the graph of Fig. 3, an advantage (a benefit) of 0.5 units, while the diminution in privacy would cause a loss of 2.5 units. Even a diminution in the less important value which is equal to the advance in the more important one can produce a negative outcome (thanks to the decreasing marginal benefit of value satisfaction): if α advances v_1's satisfaction from 10 to 13, and diminishes v_2's from 5 to 2, still this would cause a net loss: for gaining a benefit of 0.5 we lose 2 points. Thus, as we shall see in Sect. 13.3 when considering the value impact of a choice in comparison with an alternative option, it would be insufficient to identify the values advanced or diminished and to assess their relative importance: we need to compare the

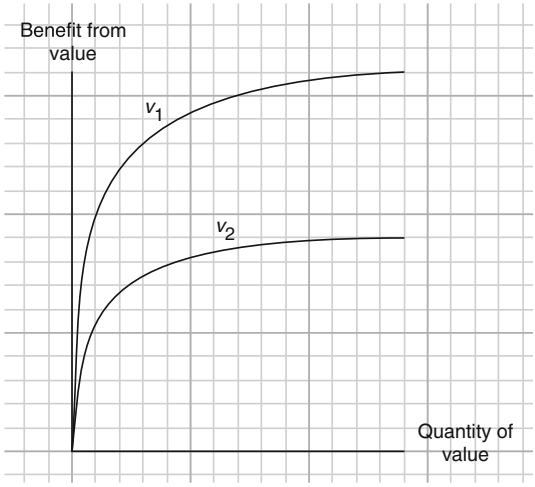

Fig. 3 Satisfaction-curves for two values

importance of the differential benefits and losses the choice produces with regard to those values.

12 Choices affecting competing values

If scalable values have the structure just indicated, then decisions affecting competing values take place in the decisional context in Fig. 4, where the two continuous lines indicate indifference curves, namely, combinations of levels of satisfaction of two competing values giving the same compound benefit (on values and indifference curves, see Alexy 2002, Chap. 3, Sect. 2.2.2.3). For instance, the most external indifference curve shows (at choice 1) that achieving level 11 (measured by counting the number of small squares from the origin of the quadrant) with regard to both values *A* (e.g., security) and *B* (e.g., privacy) is equivalent to achieving level 20 with regard to *A* and 5 with regard to *B* (both points, [11,11] and [20,5], are situated on the same indifference curve). Figure 4 expresses the idea that *A* is more important than *B*: when *A* and *B* are satisfied to the same extent (e.g., at point [11, 11] on the most external curve), the loss of one unit of *B* is compensated by about $\frac{1}{4}$ unit of *A* (the level of satisfaction remains the same when making this exchange). However, as we move down the indifference curve (as the level of *A* increases and that of *B* diminishes), compensating for one unit of *B* requires larger and larger quantities of *A*. For instance, when *B* has gone down to level 5, a diminution in *B* of $\frac{1}{2}$ is matched by a 4-units advance in *A*.

Let us assume that the decision-maker has choices 1, 2, 3, and 4 available (represented in the figure by way of the numbered circles). Choice 1 is Pareto-superior to choice 3, since it provides not only a higher compound benefit, but also a higher level of satisfaction with regard to both values. Choice 4 is not Pareto-

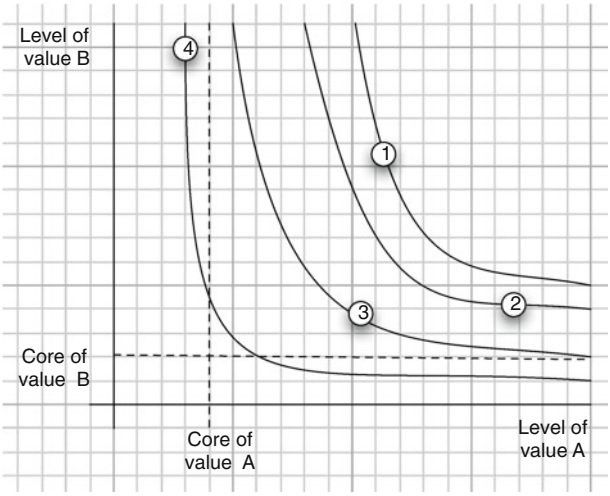

Fig. 4 Indifference curves for privacy and security

inferior to 1, since it indicates a level of satisfaction for value *B* which is higher than that provided by 1. However, this is obtained at the cost of a very low level of satisfaction for value *A*, a loss which is not made up for by the benefit provided, consisting in an advance in security. Thus choice 4, while ensuring the highest level with respect to *B* obtains the lowest compound score. The conclusion that choice 4 is inferior to 1 thus presupposes a "comparative value judgement," namely, a judgement about the comparative importance of the differential achievement of values *A* and *B* in the two choices. On the basis of this judgement, the loss caused by choice 4 with regard to *A* is not offset by the corresponding gain with regard to *B*. Even choice 2 is not Pareto-superior to choice 1, since 2 achieves *A* to a higher degree than 1, but at a cost that is not offset by the loss with regard to *B*.

Figure 4 shows the core thresholds for values *A* and *B*, namely, the levels below which a further diminution in one value cannot be compensated by an advance in the other value. This quantitative characterisation of the notion of a right's core needs to be integrated by qualitative considerations taking into account the diversity of the interests protected by a right. A single constitutional right can be analysed into different components, concerning different individual interests, which are unified under the same overarching value.

For instance, the right to private and family life recognised by the European Convention on Human Rights includes related, but different, components such as protection of the domicile, freedom to establish a family, freedom of sexual orientation, and information privacy (data protection). Interference with each such components takes the nonlinear shape I described above: as the level of satisfaction of a particular component of the right diminishes, the negative impact on the corresponding interest becomes more and more important, in an accelerated way. Thus, each right includes a family of cores pertaining to different individual values (interests): for each of the specific constitutional values falling under a single right, there is a point when further losses are unlikely to be matched by gains with regard to other constitutional values pertaining to the same or to other rights. For instance, the fact that a legal system provides full protection of the domicile, along with full data protection, cannot make up for the fact that homosexuality is criminalized: a core of the right to private and family life would still be violated. The same would also happen if freedom in sexual orientation were protected but no data protection were provided. Similarly, a core of the right of freedom of speech would be violated if freedom of speech were fully protected in all respects save for a prohibition against criticising the current government.

13 Proportionality: the test for teleology

From the legislators' perspective, doing justice to the values involved in their decision consists in deciding rationally, on the basis of all relevant pieces of normative and factual information: policy goals, their relative significance, constitutional goal-norms concerning the inclusion or the exclusion of certain values or their importance, constitutional action-norms constraining possible outcomes, the factual information concerning techniques and impacts. Obviously,

the teleological merit of a legislative choice, is not determined by particular private objectives the individual members of a legislative body may have pursued through the use of public powers (enriching themselves, helping their friends, being reelected, etc.), but rather the political goals they have adopted according to their vision of the public good, combined with the constitutional values the legislature has to take into account. A legislative choice (e.g., a law enabling body scanning in airports) can be criticised under different regards: for choosing the wrong objectives (e.g., since there is no real need to provide additional security), for wrongly assessing their importance (e.g., since privacy should be seen as more important than security), for failing to match means to ends (e.g., since body scanning controls in airports do not really contribute to security). Some of these critiques can be viewed as merely political, other assume a legal standpoint, claiming that the legislative choice violates a constitutional requirement.

By distinguishing different kinds of legal critiques against legislative teleology, we obtain the tests usually available according to proportionality, a pattern of judicial reasoning that has emerged in German administrative and constitutional tradition (Stone Sweet and Mathews 2008), and has recently been adopted in many other legal systems. According to the reconstruction proposed by Alexy (2003a, 135), a legislative norm interfering with rights protected through a constitutional goal-norm (a constitutional principle, in Alexy's terminology) only is legitimate when it meets the following tests:

- suitability, which excludes "the adoption of decision obstructing the realisation of at least one principle without promoting any principle or goal for which they were adopted";
- necessity, which requires, with regard to principles P_1 and P_2, "that of two means promoting P_1 that are, broadly speaking, equally suitable, the one that interferes less intensively in P_2 ought to be chosen".
- balancing in strict sense, which requires that "the greater the degree of non-satisfaction of, or detriment to, one principle, the greater the importance of satisfying the other".

The three tests provide individually necessary and jointly sufficient conditions for teleological correctness: thus violating each one of them is sufficient for reproach, and respecting all is necessary for avoiding it. For instance, as Alexy observes, a legislative norm requiring tobacco producers to place health warnings in their products could pass the proportionality test since the German Constitutional Court considered that (a) this norm served a suitable end (health), (b) there were no less interfering measures (upon the economic freedom of tobacco producers) to achieve that end; (c) the advantage this measure provided with regard to health outweighed the minor interference it caused on economic freedom. Here I shall try to link the proportionality test to the model of teleological reasoning provided in the pages above. For this purpose some additional terminology may be useful.

I shall write $\emptyset$ to denote inaction, i.e., the behaviour consisting in omitting a measure without replacing it with a different initiative. By saying that α *advances* value v, I shall mean that α satisfies v more than inaction ($\alpha \succ^{v} \emptyset$). For instance, if a

new regulation α prohibits processing personal data for commercial purposes without the consent of the data subject (which was previously permitted) I shall say that α advances privacy. Similarly, I shall say that α *diminishes* v, to mean that α satisfies v less than inaction ($\emptyset \succ^{v} \alpha$). For instance, if a new regulation α permits, for the sake of health, the registration of genetic data of all newborn children (which was previously forbidden), I shall say that α diminishes privacy, while possibly advancing health.

I shall also say α is superior to β with regard to the value set $\{v_1, \ldots, v_n\}$ ($\alpha \succ^{\{v_1,\ldots,v_n\}} \beta$) to mean that the α's compound impact on all values in the set is better (higher, more valuable) than β's. In this comparison, the diminution in (the satisfaction of) one value can be outweighed by the advance in another value (the compound impact includes the benefits deriving the satisfaction of all values in the set). Consequently, it is possible that $\alpha \succ^{\{v_1,\ldots,v_n\}} \beta$ even though β satisfies certain values in the set $\{v_1, \ldots, v_n\}$ more than α does, so that α is not Pareto superior to β (there exist some $v_i \in \{v_1, \ldots, v_n\}$ such that $\beta \succ^{v_i} \alpha$). This happens when the comparative advantage provided by α with regard to certain values outweighs the advantage provided by β with regard to other values. Assume, for instance, that α consist in allowing cameras and requiring the destruction of footage after 1 day and β consists in prohibiting street cameras altogether, and that the comparative advantage in security provided by α outweighs the comparative advantage in privacy provided by β. Then it can be concluded that α is superior to β with regard to the value-set $\{privacy, security\}$ ($\alpha \succ^{\{privacy,security\}} \beta$), even though β is superior to α with regard to privacy ($\beta \succ^{privacy} \alpha$). I assume that preferability with regard to sets of values (as preferability with regard to single values, see Sect. 7) is complete and transitive and that being superior with regard to the set of all relevant values entails being superior tout court (if $\{v_1, \ldots, v_n\}$ are all relevant values, then $\alpha \succ^{\{v_1,\ldots,v_n\}} \beta \rightarrow \alpha \succ \beta$).

As we observed above (Sect. 7), Pareto superiority allows us to conclude for the preferability (rationality) of a choice without engaging in balancing, understood as the (usually controversial) assessment of trade-offs between impacts on different values: the judgement that α is Pareto superior to β does not depend on the relative importance of the values at issue. However, when we have to compare choices α and β such that α satisfies more certain values and β certain others, then Pareto-superiority is inapplicable, and trade-offs are needed so that the relative importance of the differential impact on the values at issue becomes decisive.

13.1 Suitability

Following Alexy's characterisation of proportionality, I shall first address the suitability test, which includes two aspects: (a) the legislative goal must be permissible and (b) the legislative measure must be capable of advancing it.

13.1.1 Suitability (a): permissible goal

A legislative determination diminishing a constitutional value must aim at advancing at least one constitutionally permissible goal. The *permissible goal* requirement is violated when the legislature adopts a determination diminishing a

constitutional value, and does so in order to pursue a goal that it is constitutionally impermissible. Such a decision would fail to be rational (or, for that matter, reasonable) with regard to the decisional context as emended by removing the impermissible goal. In other words, when the impermissible goal is eliminated from the teleological framework of the decision, the only relevant impact of the decision is its negative impact on the constitutional value, which makes that choice internally irrational (Pareto-inferior to the choice that consists in inactivity). Thus, let α be the legislative choice (e.g., imprisoning the members of the opposition parties), g be the impermissible goal pursued by the legislator through α (prevent criticism to government's activities), and v be a constitutional value (individual freedom) diminished by α. According to the legislator's assessment choice α was beneficial, with regard to the combined impact on the values at stake ($\alpha \succ^{\{g,v\}} \emptyset$), even if it diminished freedom ($\emptyset \succ^{v} \alpha$), since the benefit of preventing criticism against the government outweighed the diminution in personal freedom. However, by eliminating the illegitimate purpose (g is no valuable interest, and should have had no weight in deliberation), we get that doing α is worse than doing nothing with regard to the valuable interests at stake (since v is the only valuable interest at stake $\emptyset \succ^{v} \alpha$ entails $\emptyset \succ \alpha$): choice α appears to be unreasonable (it uselessly diminishes a constitutional value), and thus constitutionally defective.

13.1.2 Suitability (b): effectiveness

A legislative determination diminishing a constitutional value must effectively advance at least one constitutionally permissible goal. The *effectiveness* requirement is violated when the legislature adopts a determination α that diminishes a constitutional value v wrongly believing that it promotes a legislative goal g (e.g., a useful cosmetic product is prohibited on health grounds, wrongly believing that the product has negative side-effects on health). Given that α fails to advance g ($\emptyset \succeq^{g} \alpha$) and diminishes v ($\emptyset \succ^{v} \alpha$), then α is inferior to inactivity also with regard to $\{g, v\}$ ($\emptyset \succ^{\{g,v\}} \alpha$), contrary to the legislative assessment of the merit of α (the wrong view that $\alpha \succ^{\{g,v\}} \emptyset$). Thus the legislative choice of doing α (prohibiting the cosmetic product and so interfering with economic freedom, without obtaining any gain with regard to public health) appears to be irrational. However, this judgement depends on the fact that the reviewer rejects the legislators' factual belief that α advances the pursued legislative goal (health). As we shall see in Sect. 15, this justifies a criticism against the legislative choice, but may not its judicial annulment. For the latter purpose the legislator's factual mistake must be very serious and indisputable.

13.2 Necessity

To identify the right notion of necessity, we must consider that in the context of proportionality "necessity" must be one of the conditions which jointly determine the teleological correctness of a decision: it must be a necessary but not sufficient condition for teleological correctness. Conversely, the violation of "necessity" by a decision α (the fact that α is unnecessary) must be a sufficient but not necessary

condition of α's faultiness. In other words, an 'unnecessary" decision must be wrong, while a "necessary" one may be, but is not necessarily, right.

The notion of necessity is most easily characterised when there are just two values/goals at stake, the goal g pursued by the legislator through choice α and a single constitutional value v diminished by α. Under these circumstances, we can say that a choice α is necessary when there is no other choice that equally provides for g while involving a lesser diminution in v (i.e. there is no choice β, such that $\beta \succeq^{g} \alpha$ and $\beta \succ^{v} \alpha$), i.e., when every choice which is superior to α with regard to v, would be inferior with regard to g (for all $\beta, \beta \succ^{v} \alpha \rightarrow \alpha \succ^{g} \beta$). In other word, a necessary choice must satisfy the requirement of Pareto-optimality: no alternative choice must be Pareto superior to it. Let us call this kind of necessity *Pareto-necessity*. Correspondingly, we can say that a choice α is Pareto-unnecessary when α is inferior to a possible alternative β with regard to the diminished value v and not superior to β with regard to the legislative goal g (i.e. there exists a choice β, such that $\beta \succeq^{g} \alpha$ and $\beta \succ^{v} \alpha$). In this case it would be unreasonable to choose α, we should choose β instead of it. For instance, let α be the choice of allowing images from street cameras to be kept for 1 year, and let β consist in allowing such images to be kept only for one month, and assume that α diminishes privacy more than β does, but does not provide more security. Under these conditions, α would be Pareto-unnecessary.

It is easy to see that a Pareto-necessary choice may still be teleologically mistaken. Assume that there is a third choice, γ (e.g. allowing data to be kept for 2 days, rather than for a month), that in comparison with β would advance privacy diminishing security (since keeping the footage for a month rather than for two days would increase the chance of identifying the authors of certain crimes). Assume that γ's advance with regard to privacy outweighs the diminution in security ($\beta \succ^{security} \gamma, \gamma \succ^{privacy} \beta$, and $\gamma \succ^{\{privacy,security\}} \beta$). Under such conditions, γ would not be Pareto-superior to β (being inferior to β with regard to one value, that is security), so that we may still say that β is necessary to achieve security (up to the intended level). However β would still be teleologically mistaken, since γ provides a better overall outcome.

As another example, which exemplifies the role of Pareto-necessity between suitability and balancing, consider the case of the criminal prohibition to use cannabis, which has been under constitutional scrutiny in various countries. Assume that the criminal prohibition from consuming cannabis has a negative impact on individual freedom, and is meant to limit consumption and thus protect individual (or public) health. This prohibition would fail the proportionality test being unsuitable if it could be shown that cannabis's consumption has no impact on health (the prohibition in this case would fail to achieve the legislative purpose). Assuming that cannabis has indeed a negative impact on health, such a prohibition would still fail the proportionality test being Pareto-unnecessary if it could be shown that alternative initiatives exist (e.g., providing education on risks deriving from the use of cannabis) susceptible of reducing consumption to the same extent, without having a negative impact on individual freedom. Supposing that no such measures exist (since the prohibition of cannabis is the most effective way to limit consumption), the prohibition might still fail to be proportional under the balancing test, in case that the diminution in

individual liberty would outweigh the advance in health (as was argued by the German Constitutional court in the Cannabis case, BVerfGE 90, 145).

We can generalise this idea of Pareto necessity (as a notion that addresses comparison without tradeoffs) to cover cases where a choice interferes with different constitutional values (possibly advancing some values and diminishing some others): choice α, diminishing value v, is Pareto-necessary to achieve goal g when no alternative β exist that (a) equally achieves the legislative goal g (b) involves a lesser diminution in v, and (c) is not inferior to α with regard to each other relevant value (there is no β such that $\beta \succeq^{g} \alpha$ and $\beta \succ^{v} \alpha$, and for every other relevant value v', $\beta \succeq^{v'} \alpha$).

Pareto-necessity is not the only possible understanding of the notion of necessity, but it is the one that allows fully separating the assessment of necessity from the assessment of the relative importance of the competing values at stake. Often the term "necessary" is used in different ways, which involve some kind of balancing, i.e., taking into account the relative importance of competing values, as we shall see in Sect. 14.

13.3 Balancing

Balancing in a strict sense is the most delicate and controversial aspect of a constitutional review, since it involves an assessment of the comparative importance of differential impacts, produced by alternative choices, on different values.

In balancing a choice α against an alternative β we have to consider what impacts α and β have on the values at issue, and determine what advantages or losses are brought about by the alternative choices. These differential gains or losses are what is to be properly balanced. As the Israeli judge Aharon Barak puts it:

> [T]he comparison is not between the advantage of realising the goal as opposed to the damage brought by limiting the right. It is not between security and liberty. The comparison is between the marginal benefit to security and the marginal damage to liberty caused by the adoption of the law (Barak 2009).

Following Barak's idea, let us consider, for simplicity that α and β only impact on two values, *liberty* and *security*, and that α is superior to β with regard to security ($\alpha \succ^{security} \beta$), while β is superior to α with regard to liberty ($\beta \succ^{liberty} \alpha$). What we need to compare, to balance α and β, is not liberty against security, but is the relative gain in security brought about by α in respect to the security's level achieved in β, and the relative loss in liberty brought about by α, in respect to the liberty level achieved by β. And this has to be established taking into account both the magnitude of the gain and loss and the weight associated to the two values at stake, in the intervals we are considering.

Let $d_{\alpha}(v)$ be the degree to which value v is achieved by α, and $\Delta_{\alpha,\beta}(v)$ be the difference in the achievement of value v brought about α and β ($\Delta_{\alpha,\beta}(v) = d_{\alpha}(v) - d_{\beta}(v)$) and $w_{\alpha,\beta}(v)$, be the weight that v has the interval ad issue, namely between $d_{\alpha}(v)$ and $d_{\beta}(v)$. The weight is dependent on the interval since we need to take into account that the benefit deriving from a unitary increase in the

satisfaction of a value is not constant, but varies according to the previous level of satisfaction for the value (see Sect. 10). In this example, we need to balance the security-related differential benefit provided by α over β ($\Delta_{\alpha,\beta}(security) * w_{\alpha,\beta}(security)$) against the liberty-related differential benefit provided by β over α ($\Delta_{\beta,\alpha}(liberty) * w_{\alpha,\beta}(liberty)$). For α to be teleologically justified (faultless) the first benefit should not be inferior to the second (it should be that $\Delta_{\alpha,\beta}[(security) * w_{\alpha,\beta}(security)] \geq \Delta_{\beta,\alpha}[(liberty) * w_{\alpha,\beta}(liberty)]$. This analysis explains why balancing is context dependent: we need to compare the decisional alternatives according to the differential benefits and losses they provide with regard to the values at issue in the given context, rather than comparing the importance of such values.

We can generalise this idea as follows: α is non-inferior to β with regard to values $v_1, \ldots v_n$ iff the differential benefits of α against β with regard to $v_1, \ldots v_n$ yields a non-negative sum ($\alpha \succeq^{v_1,\ldots v_n} \beta$ iff $\Delta_{\alpha,\beta}(v_1) * w_{\alpha,\beta}(v_1) + \cdots + \Delta_{\alpha,\beta}(v_n) * w_{\alpha,\beta}(v_n) \geq 0$).

In the famous Israeli case Beit Sourik Village Council v. The Government of Israel and the Commander of the IDF Forces in the West Bank (30 June 2004, HCJ 2056/04) the Israeli Supreme court voided the order to construct a separation fence in Palestinian territory. While accepting that the fence would contribute to the Israeli security, the judges considered it would cause a disproportionate injury to the local inhabitants, depriving them of their freedom of movement, and in particular of the possibility of working on their lands. Thus they annulled that order as a violation to the Israeli constitution. In our terminology, if α is the construction of the fence, and β is its omission, the judges considered that the differential security-related benefit obtainable through constructing the fence (α) was inferior to the differential freedom-related benefit obtainable not constructing it (β), i.e., to the freedom-related loss bought about by its construction ($\Delta_{\alpha,\beta}(security) * w_{\alpha,\beta}(security) < \Delta_{\beta,\alpha}(liberty) * w_{\alpha,\beta}(liberty)$). Thus they annulled the decision.

14 Benchmarks for balancing

We can distinguish different benchmarks for the balancing assessment, involving different degrees of judicial interference on the legislator's choices:

- Whether the measure under review is to be compared with legislative inaction (*Nonnegative-Tradeoff*: it would not have been better if the legislator had just refrained from addressing the problem) or whether its has to be compared with (all) other possible alternative legislative measures addressing the same problem (*Maximal-Tradeoff*: it would have been better if the legislator had adopted a different measure);
- Whether balancing needs to refer only to constitutional values, and in particular only to constitutional rights (*Constitutional-Balancing*) or whether it should consider also legislative purposes (*Overall-Balancing*).

By combining the 2 distinctions above (which I will analyse in the following paragraph, 4 possible combinations are obtained: Constitutional-Nonnegative-Tradeoff, Overall-Nonnegative-Tradeoff, Constitutional-Maximal-Tradeoff, Overall-Maximal-Tradeoff.

14.1 Non-negative v. maximal tradeoff

A legislative determination diminishing a constitutional value satisfies the condition of *Nonnegative-Tradeoff*, with regard to a set of values, when its combined impact on these values is not worse than the impact of inaction. Thus a choice α diminishing constitutional value v complies with the requirement of *Nonnegative-Tradeoff* α with regard to a value set $\{v, v_1, \ldots, v_n\}$, if α is not inferior to $\emptyset$ with regard to $\{v, v_1, \ldots, v_n\}$ ($\alpha \succeq^{\{v,v_1,\ldots,v_n\}} \emptyset$). This requires that α advances, to an extent offsetting v's diminution, certain other values in the relevant set.

Conversely, failure to satisfy the *Nonnegative-Tradeoff* test would mean that v's diminution is not offset by the advance in other values, so $\emptyset$ is strictly preferable to α with regard to $\{v, v_1, \ldots, v_n\}$ ($\emptyset \succ^{\{v,v_1,\ldots,v_n\}} \alpha$). For instance, in order to establish that a law requiring DNA samples being taken from all citizens fails to meet the requirement of *Nonnegative-Tradeoff* (as compared to the current state of affairs when samples are only taken from suspects) we have to prove that the advance this law provides with regard security is outweighed by the diminution in privacy (both security and privacy being constitutional values). A legislative choice may fail this test since the legislators' made an evaluative mistake in assessing the relative importance of two or more values at issue (they gave too much importance to some values advanced by α or too little importance to some value diminished by it), or since they make an epistemic mistake in assessing the impacts on those values.

The idea that the legislative decision must produce the maximal trade-off of the involved values allows for a more intrusive kind of judicial review. Under the Maximal-Tradeoff test it is not sufficient the legislative choice α, diminishing value v, is preferable to inactivity, α must be preferable to every possibly legislative choice (for every β, it must be that $\alpha \succeq^{\{v,v_1,\ldots,v_n\}} \beta$). Consequently α would be defective whenever there exists a possible decision β that that would provide an even better outcome than α (there exists a β such that $\beta \succ^{\{v,v_1,\ldots,v_n\}} \alpha$). This will be the case in particular when α, while resulting in a combined achievement of constitutional values higher than (or equal to) the outcome afforded by $\emptyset$ ($\alpha \succeq^{\{v,v_1,\ldots,v_n\}} \emptyset$), falls short of a maximal combined achievement of the constitutional values at stake, since there is an alternative determination β which fares better than α.

Let us consider the following hypothetical example (which follows to some extent the case S. and Marper v. the United Kingdom, decided by the European Court of Human Rights on 4 December 2008). Suppose that non-voluntary storing of genetic data was prohibited under a preexisting legal framework r_1, that a new regulation r_2 is issued making it possible to store genetic data collected in the course of a criminal investigation. Suppose now that a reviewer agrees that r_2, while diminishing privacy for the sake of security, yields an outcome (a combined satisfaction of the two values of privacy and security) better than the outcome yielded by r_1 (the diminution of privacy being outweighed by the advance in security). And suppose, finally, that that the reviewer also believes that a different regulation r_3 (permitting to store data, but requiring deletion in case charges are dropped) would more suitably balance privacy and security.

Regulation r_1 results from $\emptyset$ (inactivity) since it would remain in force if no new legislative initiative were taken, while let us call ρ_2 the act of producing r_2 and ρ_3 the act of producing r_3. Thus according to the reviewer the best choice would consist in adopting the alternative measure ρ_3, which would improve upon the legislative measure ρ_2, which was however an improvement with regard to the preexisting state of affairs ($\rho_3 \succ^{privacy,security} \rho_2 \succ^{privacy,security} \emptyset$): the defectiveness of the adopted choice ρ_2 is only based on the fact that it is inferior to an alternative measure that the legislator could, but did not, take.

14.2 Constitutional v. overall balancing

According to the second distinction above, there are two ways of applying *Nonnegative-Tradeoff* or *Maximal-Tradeoff*, a stricter one (as a control on legislative activity), *Constitutional-Balancing* and a more permissive one, *Overall-Balancing*. According to the first approach, only constitutional values are relevant: a diminution in the combined satisfaction of constitutional values is sufficient to make a legislative choice defective regardless of any advance in the satisfaction of non-constitutional values. According to the second approach, on the contrary, also legislative goals are relevant (even when their pursuit is not constitutionally required), and their advancement can balance the diminution of constitutional values. Thus, according to *Constitutional-Balancing* a legislative choice α diminishing constitutional value v is defective if α is inferior to β with regard to the combined impact on all relevant constitutional values $v, v_1, \ldots, v_n$ ($\beta \succ^{\{v,v_1,\ldots,v_n\}} \alpha$), while according to *Overall-Balancing* two conditions must be jointly satisfied, for α to be defective: α must be inferior to β with regard the constitutional values ($\beta \succ^{\{v,v_1,\ldots,v_n\}} \alpha$) and it must also be inferior with regard to the combined impact on constitutional values and legislative goals $g_1, \ldots, g_m$ ($\beta \succ^{\{v,v_1,\ldots,v_n,g_1,\ldots,g_m\}} \alpha$).

For instance, let us assume that privacy and security are constitutional values, while cutting down on public spending is not. Let us also assume the following. Choice α (e.g., introducing body-scanning in airports) is inferior to inactivity with regard to the involved constitutional values, privacy and security ($\emptyset \succ^{privacy,security} \alpha$), since the large diminution of privacy is not offset by the small advance in security. However, implementing α would be much cheaper than implementing the previous policy (which entails costly inspections by airport customs). On *Constitutional-Nonnegative-Tradeoff*, a reviewer would disregard the older policy's higher costs (assuming that cost-effectiveness is not a constitutional value) and would in any case consider the legislative measure defective. On the test *Overall-Nonnegative Tradeoff* α would be viewed as non-defective in case that α's superiority with regard to the non-constitutional legislative goal (cost-cutting) would balance α's inferiority with regard to the constitutional values ($\alpha \succeq^{costcutting,privacy,security} \emptyset$). Note that obviously *Constitutional-Nonnegative-Tradeoff* would yield the same outcome as *Overall-Nonnegative Tradeoff* if constitutional values were considered lexically superior to legislative values, so that the largest advance in the achievement of a legislative goal could not balance the smallest diminution in a constitutional value. On the contrary,

they may lead to different outcomes when this assumption does not hold, so the advance in a legislative goal can possibly outweigh a diminution in a constitutional value.

14.3 Balanced necessity

According to the notion of Pareto-necessity (Sect. 13.2), balancing is not needed for establishing necessity: for determining whether α, diminishing value v to achieve goal g, is Pareto necessary, we have to put α against any alternative β, and make sure that β, while satisfying g as much as α, is not superior to α with regard to v. For the purpose of this assessment, we do not need to compare the differential impact on v against the differential impact on g.

The concept of Pareto-necessity (and the idea that balancing is unneeded for assessing necessity) does not correspond to the way in which the term "necessary" is used in some contexts. Consider for instance Art. 8 of the European Convention on Human Rights, stating that limitations of the right to privacy must be necessary "for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others". In the application of this norm, necessity has been denied even with regard to legislative choices that apparently satisfy Pareto-necessity, since the alternatives available to the legislator seem indeed inferior to the legislative choice with regard to the attainment of the legislative goal. For instance, in Marper v. the United Kingdom (a case decided by the European Court of Human Rights) the violation of privacy by the attacked legislative norms (which allowed the police to keep for an indeterminate length DNA samples taken from suspects, even after their acquittal) was considered unnecessary even though arguably it provided a higher level of security (by enabling more data, potentially useful for future investigations, to be stored), in comparison with the alternative measure considered by the Court (preserving only the samples taken from convicted persons). By excluding that the preservation of all samples is "necessary" for security, the Court seems to assume that necessity may fail even when the less interfering measure satisfies the legislative goal to a lesser extent (so that the legislative choice is indeed Pareto-optimal). Being unable to provide here a doctrinal analysis of this usage of "necessary", I will only hint at two possible interpretations.

On the one hand, this use of 'necessity" may presuppose a limited kind of balancing, namely, a comparison of the advantage under the legislative goal (security) and the disadvantage under the diminished value (privacy): the measure diminishing privacy is considered unnecessary to achieve security, in the sense that (in comparison with an available alternative) it imposes a serious diminution in privacy, which is not justified by such a small gain in security. Thus the assessment of necessity includes a balancing exercise, having a clear and indisputable answer (at least according to the assessor).

On the other hand, this use of "necessity" may be linked to the idea that a minimum threshold-benefit is required for interfering with fundamental rights: only when a certain substantial advantage is to be achieved with regard to the legislative goal, is the legislator allowed to limit (even to a small extent) a fundamental right.

When the advantage is below the threshold, the limitation is deemed "unnecessary", and thus can be rejected regardless of balancing. This assumes that that the protection of rights cannot be left to balancing alone: first one needs to show that conditions for an a limitation of the rights exist, and one of these conditions may indeed consist in a substantial advance in the pursuit of the legislative goal, and advance sufficient to make it worthwhile to engage in the risky and uncertain business of balancing.

15 From defective balancing to justified striking down

In the previous sections I have analysed, according to the idea of (teleological) proportionality the possible ways in which a legal decision can be viewed as defective for failing to take into account goal-norms. I shall now focus on judicial review, and particularly in those legal systems where a judicial authority has the power to adopt legal measures against a mistaken legislative choice, measures which may consist in annulling legislative norms (in systems having a constitutional court with such powers), or in restoring the violated rights (as in certain international human rights regimes, like the one provided by the European Convention on Human Rights). Different considerations, which I cannot pursue here, may apply to contexts where constitutional review is limited to issuing a warning to the legislator, or in delaying the legislative procedure.

For establishing under what conditions such a judicial authority may justifiably decide against a legislative choice, we need to consider that (a) complex, uncertain and questionable factual judgments are involved in determining the impacts of alternative legislative decisions (e.g., assessing how much a law achieves economic objectives, counters security threats, promotes substantive equality, etc.), judgments for which judges can be poorly equipped (or at least no better equipped than legislators) and (b) in a democratic regime, it is up to representative authorities (legislatures in the first place) to establish what policies to pursue, and the issue of how to balance individual rights against social values and other rights fits within the political debate. It is indeed a core issue for political confrontation and democratic deliberation, an issue that cannot be addressed only or mainly though legalistic arguments (as argued in particular by Waldron 1999). We need also to consider that the decisional process of a legal community involves different bodies and institutions, each having its own functions and capacities. It is unlikely that the best integration between a decision-maker and a judicial reviewer will be one where the reviewer can strike down the decision-maker's choice whenever the reviewer sees it as failing to achieve the perfect balance of the involved constitutional values. This approach would place very stringent limitations on legislative decision-making, limitations incompatible with the ideas of democratic participation and political equality.

Nor is the best integration likely to be one in which the reviewer can strike down every decision she views as failing to achieve bounded rationality, as characterised above (see Sect. 4). This would empower the reviewer to replace with her own decisions all legislative decisions she would have taken differently had she been

reasoning with the information the decision-maker had at the time the decision was made. Thus suboptimal legislative choices would stand review only when their defects do not depend on cognitive mistakes of the legislators, i.e., only when the legislators failed to achieve the best possible result (the best joint satisfaction of the involved rights and values) and caused negative outcomes (growing unemployment, citizens' privacy unduly restrained) because of the unfortunate cognitive circumstances in which they were acting (new unexpected social or technological developments, unavailability of good predictive models, etc.): every cognitive mistake in interpreting norms and assessing facts would justify striking down the defective legislative decision. This approach too would fail to provide sufficient space for the political choices of the legislators: cognitive mistakes and different policy choices can hardly be distinguished in the normative domain (e.g. interpretation of a constitutional text), and the same often holds for the factual domain (consider for instance the connection between economical analyses and political views).

To identify the threshold of justified annulment on teleological grounds we can use the term *unreasonableness* (for further consideration on reasonableness and unreasonableness, see Sartor 2009): it seems to me that all teleologically defective legislative choices can be criticised on legal and political grounds, but they should be stuck down by a constitutional reviewer only when the defect is so serious to make them *unreasonable*. If the notion of unreasonableness has to play this role, it must be tailored to the institutional role and competence of the involved decision-makers and of their reviewers, and in particular it must take into account the reviewer's deference space, namely, the area within which the reviewer should not attack the measure under review even though she believes a different measure should have been taken (on deference, see Soper 2002). If unreasonableness (where constitutional values are concerned) represents a sufficient ground for teleologically motivated annulment, then it must be delimited by the deference with is due on institutional grounds. In other terms, considerations of institutional deference should identify a reasonableness threshold, and thus a sphere of non-reviewable legislative discretion, encompassing not only the decision the reviewer would have taken but also other choices that the reviewers considers to be faulty but not unreasonable, i.e., insufficiently faulty to be unreasonable (on the need to recognise legislative discretion, see Alexy 2002, Postscript). Unfortunately, a universal characterisation of deference-based reasonableness cannot be provided, since reasonable deference is relative to institutional arrangements. We can however, say that an idea of reasonableness appropriate for judicial review must integrate different aspects of deference: full political deference to the political choices of the legislator (within the area not limited by constitutional constraints), limited deference to the legislative determination concerning factual and social knowledge, a certain margin of appreciation concerning the identification of constitutional values and their priorities. Only when such limits are overcome, unreasonableness may be a ground for judicial annulment.

Figure 5 illustrates how a determination (1) that does not coincide with what the reviewer would choose (5) may still fall within the margins of the decision-maker's appreciation (as indicated by the dotted lines) and may thus escape judicial censure:

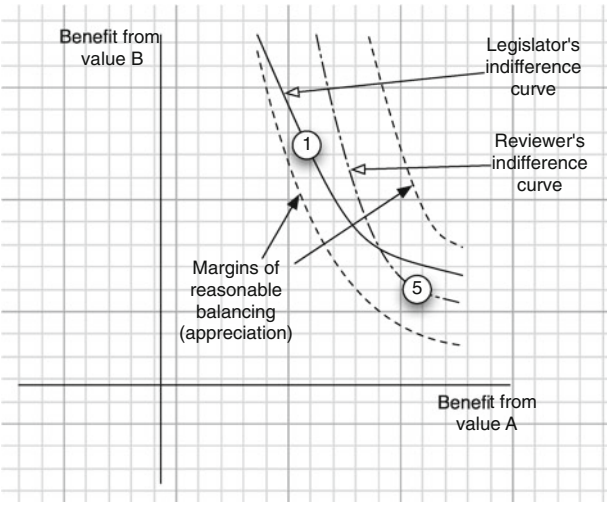

Fig. 5 Margins of appreciation and reasonable assessment

though the reviewer views the decision-maker's choice as imperfect (it is based on an indifference curve that in the reviewer's opinion accords too much importance to value *A*), she does not consider it to be attackable, being within the margin of the decision maker's reasonable appreciation.

According to the idea of a margin of (reasonable) appreciation for political authorities, even in matters involving rights, a balancing defect identified by a reviewer should justify striking down a legislative decision only when the reasonableness threshold (institutional deference) is overstepped. Let us say that a choice β outbalances a choice α with regard to value-set $\{v_0, \ldots, v_n\}$, and write $\beta \gg^{\{v_0,\ldots,v_n\}} \alpha$, to indicate that β is superior to α with regard to $\{v_0, \ldots, v_n\}$ to an extent sufficient to make it unreasonable to prefer α over β. Thus the condition for striking down α in consideration of alternative β, i.e., unreasonableness of choosing α rather than β, can be expressed by saying that β outbalances α with regard to the relevant values ($\beta \gg^{\{v_0,\ldots,v_n\}} \alpha$). Note that β outbalancing α entails that β is superior to α, but the converse does not necessarily hold, i.e., it may be that β is superior to α, but not to an extent sufficient to make α unreasonable (even though $\beta \succ^{\{v_0,\ldots,v_n\}} \alpha$, it may be the case that $\beta \not\gg^{\{v_0,\ldots,v_n\}} \alpha$).

The idea of outbalancing can also be expressed by expanding the idea of balancing to include, among the constitutional values, also equal participation in political choices, through the institutions of representative democracy. In particular, let us denote by *d* (democratic autonomy) this value, which supports the autonomy of the legislator, as a representative institution. Then we could say that β outbalances α ($\beta \gg^{\{v_0,\ldots,v_n\}} \alpha$) if and only if β by the judiciary (β_j) outweighs α by the Parliament (α_p), including in the balance also the loss in *d* consequent to the judicial intervention ($\beta_j \succ^{\{v_0,\ldots,v_n,d\}} \alpha_p$). In other terms α is unreasonable (and striking it down is permissible) in comparison to β, if the differential benefit

provided by β in comparison to α, with regard to the set of all relevant values (except d), is superior to the advantage provided by α by the Parliament in comparison to β by the judiciary with regard to representative democracy ($\Delta_{\beta,\alpha}(v_0, \ldots, v_n) > \Delta_{\alpha_p,\beta_j}(d)$).

16 Grounds for unreasonableness

The idea of a reasonableness threshold applies to both the epistemic (factual) judgements and the axiological (evaluative) judgments of the legislator.

The unreasonableness of choosing α rather than β with regard to certain values may depend on a wrong factual judgement. For instance, given the factual premise that a terrible terrorist attack is imminent, and the premise that scouring all Internet traffic with data-mining techniques will probably foil the attack, a legislator may be justified in authorising the police to engage in massive surveillance to the detriment of privacy. However, if there are no grounds for accepting either of those premises (no convincing evidence that an attack is underway, and little evidence that unrestricted data-mining will be able to prevent it), then diminishing privacy may be considered unreasonable. But substituting the court's epistemic assessment for the legislature's seems to require something more than a mere mistake of the latter: it should require a mistake consisting in epistemic unreasonableness, namely, a serious and indisputably ascertainable fault. The legislature's dissonance with regard to the shared assessment of the scientific community should play a decisive role in this assessment. Correspondingly, the court should refrain from opposing the legislators' views on the basis of a different economic or social theory, which the court favours (viewing it as more reliable, better supported by the facts), but which other reasonable people reject (as justice Holmes famously argued in the Lochner case).

The unreasonableness of choosing α rather than β with regard to certain values may also depend on an axiological mistake of the legislators: according to the reviewer the legislators' choice is based on a mistaken evaluation of the comparative importance of the values (goals) at stake (rather than on a different assessment of the factual impacts of the legislative decision). Here also the court's interference with the legislature's political autonomy would be highly controversial (given that disagreements over matters of value are difficult to resolve and may be dependant on differences concerning political attitudes). Such an interference can be more easily justified (considering the democratic derivation of the legislature's power) when the judges' evaluation appears to comport with people's assessment of the relative importance of the values (or with the assessment of the people who are interested in the matter and have been discussing it), namely, when it appears that the legislature has failed to take duly into account the need of being consonant with the general opinion.

Additional care is required when *Maximal-Tradeoff* is used, rather than *Nonnegative-Tradeoff*, since the application of the first standard requires counter-factual/conjectural investigations on what impacts alternative choices might have

had, choices that legislators possibly did not consider at the time when the contested decision was adopted. The application of *Maximal-Tradeoff* is particularly problematic when the contested decision α satisfies the set of all relevant values more than the preexisting state of affairs (more than $\emptyset$), though less than an alternative measure β ($\beta \succ^{\{v_0,\ldots,v_n\}} \alpha \succ^{\{v_0,\ldots,v_n\}} \emptyset$). If the reviewing court can only act as a negative legislator (only has the power to remove norms from the legal system), by striking down α, the court would restore the preexisting state of affair, worsening the compound achievement of the constitutional values. This paradoxical effect can be avoided if the court can strike down α without cancelling all of its effects (e.g., it can impose β as a particular interpretation of the language of text α, or it can rule that the government pay out compensation for the injury owed to by α, all the while preserving α's legal validity).

However, it seems that deference to legislative authority requires that such interventions only take place in extreme cases: β's advantage over α must be truly uncontroversial (or at least there must be broad support for this view in public opinion), and β must be obtained through a modification of α (by introducing an exception or extension to it), i.e., by reframing α's content rather than going to the extreme measure of striking down α.

I cannot pursue here the discussion on reasonableness and unreasonableness of legislative decisions, i.e., the discussion on when their mistakes are so serious to legitimate review. Since this discussion ultimately concerns institutional deference, that is, the cooperation of different institutions in articulating the connection between democracy and constitutional (or human) rights, it can only be developed with regard to particular institutional frameworks.

17 Balancing and precedents

Balancing in a strict sense, i.e., comparing differential impacts on different values may require a difficult assessment, whose outcome is likely to be highly controversial. Fortunately, precedents can help. When we have a relevant antecedent assessment concerning a legislative choice α, we can evaluate a subsequent choice γ by comparing γ and α. This may enable a simpler assessment, which does not require balancing or that only needs a simplified form of it. To clarify the basic idea, let us consider a variation on the Marper case above considered.

Assume all of the following. At stage (1), denoted by $\emptyset$ the legislation of a certain country did not allow for the conservation of suspects' DNA after the conclusion of criminal proceedings. At stage (2) a statutory rule α was enacted on security grounds, which enabled the conservation of the DNA samples for 10 years. At stage (3) the reviewing body declared that α violated the constitution, on the basis on a balancing-based argument: according to the judges it was true that α advanced security with regard to the previous state of affairs ($\alpha \succ^{security} \emptyset$), but it did so at the expense of privacy ($\emptyset \succ^{privacy} \alpha$), and the loss in privacy so much outweighed the advance in security as to make α unreasonable, being outbalanced by $\emptyset$ ($\emptyset \gg^{\{privacy,security\}} \alpha$). Thus they struck down α, bringing back the antecedent state $\emptyset$.

Assume that at stage (4) the legislator issues a new statutory rule γ, which provides for the conservation of DNA samples of suspects for 20 years. Let us try to assess the merit of this new rule. Since γ entails a larger diminution of privacy than α does (because of the extended conservation time), γ is inferior to α with regard to privacy ($\alpha \succ^{privacy} \gamma$). With regard to security we can distinguish two cases: (a) γ is equivalent to α, since the additional conservation time provides no advance in security ($\gamma \equiv^{security} \alpha$) or (b) γ is superior to α, since the additional conservation time advances security ($\gamma \succ^{security} \alpha$).

In case (a) we can straightforwardly conclude that γ is unreasonable, without the need of a new act of balancing. In fact, in this case α is superior to γ with regard to privacy and equivalent with regard to security ($\alpha \succ^{privacy} \gamma \wedge \alpha \equiv^{security} \gamma$). Thus (these being the only values at issue), α is Pareto-superior to γ with regard to the value set $\{privacy, security\}$ and consequently superior tout court with regard to it ($\alpha \succ^{\{privacy,security\}} \gamma$). Since $\emptyset$ (inactivity) outbalances α, which is superior to $\gamma, \emptyset$ outbalances also γ ($(\emptyset \gg^{\{privacy,security\}} \alpha \wedge \alpha \succ^{\{privacy,security\}} \gamma) \rightarrow \emptyset \gg^{\{privacy,security\}} \gamma$): being outbalanced to a larger extent by $\emptyset$,γ is *a fortiori* unreasonable. Even though $\emptyset$ is not Pareto-superior to γ ($\emptyset$ provides more privacy, but less security than γ) we can conclude that $\emptyset$ outbalances γ without engaging in any new comparative assessment of the impacts of $\emptyset$ and γ: it is sufficient to rely on α's Pareto-superiority with regard to γ and on the balancing embedded in the precedent.

In case (b), α is not Pareto superior to γ ($\alpha \succ^{privacy} \gamma$, while $\gamma \succ^{security} \alpha$). However, our assessment of whether $\emptyset$ outbalances γ can be facilitated by the fact that $\emptyset$ outbalances α. In fact to conclude that $\emptyset$ outbalances γ, knowing that $\emptyset$ outbalances α, it is sufficient to establish that α is superior to γ: once we have established that α is superior to γ ($\alpha \succ^{\{privacy,security\}} \gamma$), we can again conclude that inactivity outbalances γ ($\emptyset \gg^{\{privacy,security\}} \gamma$) on the basis of the fact that inactivity outbalances α ($\emptyset \gg^{\{privacy,security\}} \alpha$).

Establishing that α is superior to γ with regard to the value set $\{privacy, security\}$ means establishing that the differential advantage provided by α with regard to privacy outweighs the differential advantage provided by γ with regard to security (i.e., that, $\Delta_{\alpha,\gamma}(privacy) > \Delta_{\gamma,\alpha}(security)$). This can be an easy judgment in many cases: for instance it is obvious that extending of 10 years the conservation of the DNA samples would have a negligible impact on security (most cases being decided in less that 10 years) while having a serious impact on privacy. Such an assessment can be facilitated by the idea of the decreasing marginal satisfaction of values: when the diminution in value v_1 (e.g., privacy) has outweighed the advance in v_2 (e.g. security), it is unlikely that a greater advance in v_2 (an even higher security) can outweigh a greater diminution in v_1 (an even lower privacy). In other words, whenever (a) α diminishes v_1 while advancing v_2, (b) $\emptyset$ outbalances α with regard to $\{v_1, v_2\}$, and (c) γ is inferior to α with regard to v_1 and superior with regard to v_2, then we can defeasible conclude that $\emptyset$ outbalances γ with regard to $\{v_1, v_2\}$ ($[\emptyset \succ^{v_1} \alpha \wedge \alpha \succ^{v_2} \emptyset, \emptyset \gg^{\{v_1,v_2\}} \alpha, \alpha \succ^{v_1} \gamma \wedge \gamma \succ^{v_2} \alpha] \rightsquigarrow \emptyset \gg^{\{v_1,v_2\}} \gamma$).

A similar reasoning can be used when the precedent assessment was favourable to a legislative choice α, and we want to show that a new piece of legislation γ, also

is acceptable being superior to α. The above consideration can be easily generalised to cover further cases, i.e., when more than two values are at issue or when the assessment of the decisions at issue (α and γ) is performed with regard to a possible alternative β, rather that with regard to $\emptyset$ (*Maximal Tradeoff*rather than *Nonnegative-Tradeoff* is used).

Recent research on AI & Law has addressed the issue of assessing value-impacts according to precedents, in particular through models linking past assessments of values-priorities and new factual situations, with the help of of hypotheticals (Ashley 2008; Bench-Capon and Prakken 2010). Here I shall not address the combination of value-based reasoning and factual distinctions, though I believe that the ideas here presented could complement such models or at least support a critical analysis of some aspects of them.

18 Balancing values and being fair to individuals

With regard to balancing values a problem may emerge which has troubled in the last decades political philosophy: the choices aimed at maximising certain social indexes may affect negatively, in a specific and non-reciprocal way, certain individuals (this issue is addressed for instance by Rawls 1999 and Binmore 2005). In fact both when rights are limited for the sake of social goals (security, public health, etc.) and when they are limited for the sake of other rights (freedom of speech for privacy, dignity or non discrimination, economic freedom or health, rights of authors against rights to access knowledge, etc.), an equality (fairness) issue may emerge, since the diminished rights may concerns only or more frequently certain categories of people (on equality and the law, see for all Sadurski 2008; on the limitation of rights on the basis of considerations pertaining to the "common good", see Miller 2008). For instance limitations of individual freedoms on grounds of security may more often and more heavily concern certain minorities (e.g., people having a Muslim background with regard to anti-terrorism measures).

In such cases we need to consider how to compare impacts that differently concern different individuals, and in particular, whether we should aggregate individual benefits and losses. Aggregating benefits and losses would mean to favour the majority to the detriment of minorities; not making the aggregation would mean disregarding less intense interests largely distributed in the population, as compared to more intense interests only concerning limited sections of it. For instance, consider the decision of the Israeli Supreme Court we mentioned above, concerning the construction of the fence separating Palestinian farmers from their land. Let us assume that in this case, the average differential freedom loss δf suffered by the concerned farmer is very high but restricted to a small number $N(df)$ of people, while the average differential security gain δs is smaller, but extended to a larger number $N(ds)$ of people. To determine whether the gain in security obtained by constructing the fence is proportionate to loss in freedom shall we consider (a) whether the average individual gain in security of a neighbouring citizen is non-inferior to the average loss in freedom of a concerned farmer (whether $\delta s \geq \delta f$) or (b) whether the total gain in security is non-inferior to the total loss in

freedom (whether $\delta s * N(ds) \geq \delta f * N(df)$)? Clearly, the two assessments can give diverging outcomes: when a sufficiently larger number of people is affected by a smaller disadvantage (in our example, when $\delta s/\delta f < N(df)/N(ds)$, the individual and the aggregate outcomes will be different. Here one needs to consider that the values protected by rights may have a non-aggregate, or non-fully aggregate, nature (the fact that the disadvantage of one person is not necessarily compensated by another person's greater benefit), and bring to bear on the comparison egalitarian consideration, namely, the need not to aggravate the situation of particular individuals or groups of them.

As another decision where equalitarian non-aggregate considerations may have exercised a certain weight, let us consider the Lebach decision of the German Constitutional Court (decided on 5 June 1973, BVerfGE 35, 202–245), extensively commented upon by Alexy (2002, Sect. 3.2.2). In that case the comparison was between freedom of information on the one hand and privacy and dignity of convicted criminals, on the other hand, with regard to a television program mentioning the names of the authors of a serious crime, many years after the crime took place. The court established that the names could not published arguing that the interference in privacy and dignity of the convicted criminals was disproportionate, prevailing over the right of information of the public (even though the latter right concerned a much larger number of people).

In other cases, when disadvantaged groups are not at stake, an aggregate approach to balancing may be more appropriate. Consider for instance cases when a severe restriction is imposed to the economic liberty of a particular kind of entrepreneurs (e.g., the oil industry engaged in offshore drilling), for the sake of interests pertaining in general to most citizens, such as environmental protection.

19 Teleology and implied constitutional norms

Constitutional rights, as inputs of legal reasoning, can be viewed in two complementary ways. The first view understands them as entitlements directly deriving from the unqualified recognition of the corresponding (individualised) values. Accordingly, a constitutional right primarily operates, with respect to the legislature, as a guide for the legislature's teleological reasoning: the legislature has the goal-duty to advance the corresponding value (freedom of speech, privacy, participation in science and culture, etc.) taking it into account in legislative determinations. And so, where judicial review is concerned, rights operate as criteria for assessing the reasonableness (proportionality) of legislative choices.

The second view understands constitutional rights as articulating a set of normative positions established by action-norms, which are not expressly set forth in the constitution, but whose implied existence can be teleologically argued with reference to the rights (values) explicitly so recognised: given the explicitly stated constitutional values, their relative importance, and the social and institutional conditions for their implementation, more detailed right-conferring norms are extracted through interpretative arguments affirming that the application of these norms is likely to provide an appropriate balance of the values at stake. In particular,

norms can be devised that unconditionally prohibit certain interferences with a right (these being inferences encroaching upon the core of the right, inferences that consequently cannot normally be balanced by the need to satisfy other values), or norms can be devised stating that a right may not be limited by certain values (whose increased satisfaction is unlikely to justify a limitation of that right). In this way, a right's normative content can be characterised in a more casuistic way (but still in general terms, concerning classes of cases) by introducing norms to be used as "trumps" against competing values, it being assumed that the protected right outbalances the competing values in the cases identified in these norms themselves (e.g., "The right to private and family life includes self-determination as concerns sexual orientation and reproductive choices, within the following limitations: ... This right includes in particular ... and can only be constrained with respect to the following cases: ... It also includes the right to exercise control over one's personal data, specifically as it pertains to ... under the following limitations: ... This right includes the right to access pornographic materials, with the exclusion of child pornography," and so on). According to the latter perspective right-norms state action-duties: they are not meant to guide the legislator's (and the judge's) teleological reasoning but rather to constrain its outcomes.

Different legal systems may place a different emphasis on the two perspectives I have described. Some systems may focus directly on constitutional rights in the abstract, thus assuming that they should be viewed as goal norms, guiding legislative reasoning, and entrusting the judges with the task of evaluating legislative decisions under their teleological appropriateness, i.e., in view of their impacts on constitutional values. Other systems may rely instead on the judicial and doctrinal definition of lower-level rules constraining legislative decision-making, thus entrusting the judges with the task of framing and applying such rules, and then evaluating the legislative decisions on this basis (see Nimmer 1968, who introduced the term "definitional balancing" to describe this idea; for some criticism, see Aleinikoff 1987, 979).

The first approach seems to correspond to some extent to the practice of European constitutional courts, while the second is more often used by the U.S. Supreme Court (for a recent analysis of adjudication on constitutional rights in different jurisdictions, see Pino 2010). Which strategy (or which combination of strategies) is most appropriate depends on different institutional structures and legal traditions, but these two strategies may be considered to some extent as functionally equivalent. In common-law jurisdictions, based on the idea that judicial decisions produce binding rationes decidendi, constitutional judges may feel comfortable with explicit rule-making. Consequently, rather than attacking a legislative determination for its failure to appropriately balance constitutional values, common law judges may prefer to extract from the constitutional recognition of such values (e.g., the right to free speech) some general rules (e.g., the rule that no content-based restrictions on speech are admissible, unless conditions of strict scrutiny are meet; or the rule that child pornography is not covered by freedom of speech) whose application will likely lead them to strike down the legislative determinations failing to effect an appropriate balance. They will then be able to decide cases (e.g., striking down a law that establishes a content-based limitation on free speech, or not striking

down a law that makes child pornography illegal) by evaluating legislation in light of implied constitutional rules rather than in light of the underlying values to be balanced. But it will still be necessary to rely on the underlying values, for justifying and interpreting the implied constitutional rules or for working out conflicts between them. In particular, we may decide a conflict between rules by giving priority to the rule whose application, in the case at hand, leads to a higher combined satisfaction of the values at stake: for instance, in cases involving hate speech, freedom of speech can prevail on dignity and non-discrimination, or the other way round (on the connection between value-based reasoning and the interpretation of rules or the determination of their priorities see Prakken 2000; Bench-Capon and Sartor 2003). Moreover, when application of the implied rules fails to provide an appropriate outcome (it would lead to striking down a legislative norm providing an appropriate balance, or to preserve an unbearably unbalanced one), the judges would need to reformulate such rules or to supplement them with exceptions.

I cannot consider here advantages and disadvantages of the two approaches (greater contextual flexibility as against greater predictability, a clearer perception of the interests at issue as against an incremental refinement of precedent-based choices), for this would in turn have us compare rule-based decision-making with a more casuistic style of decision and weigh the pros and cons (see Schauer 1991; for a discussion of some problems involved in case by case balancing, see Kumm 2007: for the risks involved in unrestricted case-by-case balancing in international law, see Scheinin 2009). I will have to leave to further work also the important issue of how to integrate into decision-making also the symbolic value of sticking to a rule (or of emphasising the teleological relevance of a principle) and the importance of rules for overcoming the temptations of short-term teleology (see Nozick 1993, Chap. 1).

We should bear in mind, finally, that both perspectives recognise the important role that teleological reasoning plays where constitutional values are concerned. In fact even the approach based on construing implied constitutional norms has to rely on a broader understanding of the constitutional rights, i.e., as values characterised and protected through abstract goal norms, which provide the reference for the construction of instrumentally-justified action-norms. Thus we can reconcile the idea of fundamental rights as "firewalls" constraining legislative choices and as values to be pursued though those choices: the firewalls (action-norms) protecting the right have to be construed taking into account the balance of the relevant values, and may be revised on the basis of a more accurate assessment of such a balance.

Consider for instance the case of individual freedom as opposed to security in the case of the fence separating Palestinian villagers from their lands. Clearly, security reasons, in extreme situations (e.g., an ongoing civil war with armed attacks) can justify freedom-limiting measures such as constructing walls and fences to divide fighting communities. Thus a universal and indefeasible action-norm, meant to provide a rigid, unsurpassable firewall, cannot prohibit such measures; it can only prohibit interferences in the very core of freedom and dignity, for which no exceptions are conceivable (e.g., the prohibition of torture). Thus the decision to build the contested wall would be legitimate on the indefeasible firewall approach. On the contrary the view of freedom as a value to be balanced with competing values would enable the legal assessment of choices like the one considered, on the

basis of a proportionality assessment. The goal-norms prescribing the pursuit of such values can coexist with action norms prescribing unsurpassable boundaries (the prohibition of torture) and can provide the background for further teleologically justified action-norms (e.g., the rule that a barrier dividing people from their land cannot be constructed whenever security can be achieved by an alternative plan, even at a much higher cost). They can also coexist with procedural norms, requiring a special kind of justification when certain rights are limited, to prevent likely mistakes and biases.

20 Conclusion

This contribution has focused on the role of teleological reasoning in legislation and adjudication. I have argued that legislative action can be guided not only by constitutional action-norms, but also by constitutional goal-norms, which are meant to govern the legislator's teleological reasoning (indicating what values should be advanced), rather than to limit the range of its admissible outcomes. I have also argued that right-norms can and often do, work as goal-norms, with regard to legislators and public authorities. Consequently constitutional reviewers must assess legislative and administrative action by evaluating the proportionality (the teleological appropriateness) of legislative choices. In this judgement, I have argued, they should be constrained by the idea of reasonableness, an idea inspired by institutional deference: a margin of empirical and a axiological appreciation should be left to legislators, even when constitutional values are at issue. I have then analysed the criteria used to assess proportionality, linking them to the structure of teleological reasoning, and I have considered how precedents can facilitate this assessment. Finally I have examined how the protection of constitutional liberties through action-norms can coexist with the proportionality-based application of goal-norms.

In this paper I have not provided computable models of teleological reasoning in the legal domain, but I hope that some aspects of the semi-formal analysis I have developed can provide a useful reference for the AI & law research in this domain.

References

Adler MD, Posner EA (eds) (2001) Cost-benefit analysis: legal, economic, and philosophical perspective. University of Chicago Press, Chicago

Aleinikoff T (1987) Constitutional law in the age of balancing. Yale Law J 96:943–1005

Alexy R (2002) A theory of constitutional rights. Oxford University Press, Oxford

Alexy R (2003a) Constitutional rights, balancing, and rationality. Ratio Juris 16:131–140

Alexy R (2003b) On balancing and subsumption: a structural comparison. Ratio Juris 16:33–49

Aquinas T (1947) Summa theologiae. Benzinger Bros, Allen

Ashley KD (2008) A process model of legal argument with hypotheticals. In: Francesconi E, Sartor G, Tiscornia D (eds) Legal knowledge and information systems. JURIX 2008: the twenty-first annual conference, IOS, Amsterdam, pp 1–10

Barak A (2009) Human rights and their limitations: the role of proportionality. In: Annual lecture in law and society. Foundation for Law, Justice and Society

Bench-Capon TJM, Prakken H (2009) A case study of hypothetical and value-based reasoning in US Supreme-Court cases. In: Governatori G (ed) Legal knowledge and information systems. JURIX 2009: the twenty-second annual conference, vol 11–20. IOS Press, Amsterdam, pp 11–20
Bench-Capon TJM, Prakken H (2010). Using argument schemes for hypothetical reasoning in law. Artif Intell Law 18 (forthcoming)
Bench-Capon TJM, Sartor G (2003) A model of legal reasoning with cases incorporating theories and values. Artif Intell 150:97–142
Berman DH, Hafner CD (1993) Representing teleological structure in case-based reasoning: the missing link. In: Proceedings of the fourth international conference on artificial intelligence and law (ICAIL). ACM, New York, pp 50–59
Binmore K (2005) Natural justice. Oxford University Press, Oxford
Chorley A, Bench-Capon TJM (2003) Reasoning with legal cases as theory construction: some experimental results. In: Bourcier D (ed) Proceedings of the seventeenth annual conference on legal knowledge and information systems (JURIX). IOS, Amsterdam, pp 173–82
Habermas J (1999) Between facts and norms. MIT, Cambridge, (1st ed. in German 1992.)
Hage JC (2004) Comparing alternatives in the law. Artif Intell Law 12:181–225
Jeffrey R (1983) The logic of decision. University of Chicago Press, Chicago
Kaplow L, Shavell S (2002) Fairness versus welfare. Harvard University Press, Cambridge
Keeney R, Raiffa H (1993) Decisions with multiple objectives: preferences and trade offs. Cambridge University Press, Cambridge
Kelsen H (1967) The pure theory of law. University of California Press, Berkeley
Kumm M (2007) Political liberalism and the structure of rights. In: Law, rights and discourse. Themes from the legal philosophy of robert alexy. Hart, Oxford, pp 131–66
Luhmann N (1973) Zweckbegriff und Systemrationalität. Frankfurt am Mein Suhrkamp
Miller B (2008) Justification and rights limitations. In: Huscroft G (ed) Expounding the constitutions: essays in constitutional theory. Cambridge University Press, Cambridge
Nimmer M (1968) The right to speak from times to time: first amendment theory applied to libel and misapplied to privacy. Calif Law Rev 56:935–967
Nozick R (1993) The nature of rationality. Princeton University Press, Princeton
Pino G (2010) Diritti e interpetazione. Il Mulino, Bologna
Pollock JL (1989) How to build a person: a prolegomenon. Cambridge University Press, Cambridge
Pollock JL (1995) Cognitive carpentry: a blueprint for how to build a person. MIT, New York
Posner RA (1983) Justice and efficiency. In: The economics of justice. Harvard University Press, Cambridge, pp 48–115
Prakken H (2000) An exercise in formalising teleological case-based reasoning. In: Prakken H, Winkels R (eds) Proceedings of the thirteenth annual conference on legal knowledge and information systems (JURIX). IOS, Amsterdam, pp 49–57
Rawls J (1999) A theory of justice (Revised ed). Oxford University Press, Oxford
Raz J (1975) Practical reason and norms. Hutchinson, London
Raz J (1978) Reasons for action, decisions and norms. In: Raz J (ed) Practical reasoning. Oxford University Press, Oxford, pp 128–43
Sadurski W (2008) Equality and legitimacy. Oxford University Press, Oxford
Sartor G (2005) Legal reasoning: a cognitive approach to the law, Volume 5 of Treatise on legal philosophy and general jurisprudence. Springer, Berlin
Sartor G (2009) A sufficientist approach to reasonabless in legal decision-making and judicial review. In: Bongiovanni G, Sartor G, Valentini C (eds) Reasonableness and law. Springer, New York, pp 17–68
Schauer F (1991) Playing by the rules. Clarendon, Oxford
Scheinin M (2009) Terrorism and the pull of 'balancing' in the name of security. In: Law and security—facing the dilemmas, EUI Working Paper, pp 55–63
Sen A (2004) Elements of a theory of human rights. Philos Public Aff 32:315–356
Simon HA (1983) Reason in human affairs. Stanford University Press, Stanford
Soper P (2002) The ethics of deference. Cambridge University Press, Cambridge
Stone Sweet A, Mathews J (2008) Proportionality balancing and global constitutionalism. Columbia J Transnatl Law 47:72–164
Waldron J (1999) Law and disagreement. Oxford University Press, Oxford