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Social Randomization: Can Lotteries be a General-Purpose Device to Deal with Societal Issues?

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The article explores the extended version of the idea that intentional randomization (of which lotteries are a special case), can be a useful tool for dealing with various social and political problems that go beyond minor issues. It contributes to the discussion of lotteries in social and political affairs in three ways. First, it argues that randomization is applicable to various types of tasks, not limited to the choice between discrete alternatives, as it is usually perceived. This broadens the scope of its possible applications to include, for example, tasks related to evaluation or policy-making. Second, it describes the variety of possible reasons and rationales for using social randomization, thus further extending the applicability of lotteries to societal issues. While normative reasons for lotteries such as equality, fairness and epistemic rationality are often cited in philosophical discussions, there are many pragmatic reasons to use them for socially meaningful purposes. Third, based on this variety of use, the article proposes the heuristic Default Randomization Principle claiming that randomization can be a general approach to social and political affairs used as a default option. By considering randomization as a general-purpose device, it is easier to recognize and realize the potential of social randomization and to resolve some common arguments against the use of random choice in public affairs.

Keywords: social randomization, randomness, social lotteries, political lotteries, sortition, public affairs

Introduction[1]

The idea of conscious and purposeful use of randomness to solve societal problems has repeatedly emerged in academic discussions but has remained rather a marginal line of thought, mostly speculative. The idea is that in some cases it may be rational and better serve socially important goals, such as fairness, justice, or political representativeness, to consciously reject the justification of one of the available options in favor of decisions based on random choices . Using various terms (randomness, lottery, coin toss, sortition), scholars describe rare historical or contemporary examples of randomness-based social mechanisms, or more often, proposals for using such devices in various contexts. They refer to decision making based not on individual arbitrariness, but on external processes that presumably provide equal probabilities for each of the alternative choices available.

Historically, examples of the institutionalized use of lottery mechanisms to make significant decisions have been known since antiquity. The most commonly cited examples are the use of the lottery to elect political representatives in ancient Greece and

1. I thank the anonymous reviewer for substantive comments and useful suggestions, especially for the name of the proposed Default Randomization Principle.

the Italian republics (Dowlen, 2008). However, serious scholarly consideration of such mechanisms has been sporadic for a long time. Aubert (1959) described several "chance devices" and their functions; other examples include the study of lotteries in social choice theory (Fishburn, 1972), ethics (Sher, 1980), and political philosophy (Amar, 1984; Goodwin, 1984), as well as some practical cases in education or conscription (Wolfle, 1970; Fienberg, 1971). Jon Elster's seminal book (1989) provided the first systematic analysis of social and political lotteries as well as the general justification for their rationality. Since then, representatives from different research fields have regularly shown interest in the idea of randomization and the application of lottery to different socially important problems, ranging from the distribution of research grants (Roumbanis, 2019) or rare medical resources (Persad, Wertheimer, Emanuel, 2009) to the possibility of complete reorganization of the political system in a democratic societies based on the random selection of representatives (Waxman, McCulloch, 2022).

The present text contributes to the ongoing discussion by demonstrating that the potential of social randomization to address important societal problems is greater than is usually recognized and extends far beyond specific types of choice situations. First, I analyze when social randomization can be used in principle, and show that such situations are not limited to choices between equal discrete alternatives. Second, I describe the variety of situations, tasks and possible reasons for choosing randomization. Instead of focusing on the normative justification of lotteries, as is typical in the literature, I focus on their pragmatic, instrumental value for social actors. Third, I propose the Default Randomization Principle as a social heuristic that facilitates the recognition of the social randomization's potential as a general-purpose tool, and show how this view helps to resolve some typical arguments against random selection.

Applicability of randomization: When to use lotteries?

In assessing the potential and possibilities of randomization in public affairs, two questions should be kept in mind: (1) In what types of situations and for what types of problems is this approach in principle applicable? and (2) What are the reasons for using this approach rather than another? Let us first consider the first one.

In the vast majority of cases, the rational and informed use of randomization in social affairs is seen as a way of making decisions, or, more specifically, choices. This type of tasks, including allocation tasks, involves a fixed list of discrete and distinguishable alternatives. In this case, randomization or lotteries are supposed to ensure that the alternatives have equal chances of being chosen, or, in the case of weighted lotteries, that there are certain probabilities of being chosen. The ontological nature of both the alternatives and the choice itself may be different.

First, lotteries can be used to allocate goods or resources, usually involving only indivisible goods. In this case, the alternatives may be the goods or resources themselves, their recipients, or both. In the first case, for example, it may be a consumer's choice among several goods. In the second, it may be a lottery to determine which of two needy

people will receive emergency care if there is not enough for all of them. In the third, it is a matching problem, i.e., the distribution of a set of goods or resources to a set of recipients (Sönmez, Ünver, 2011). Interestingly, when the lottery principle is applied to divisible resources, such as finance, they are transformed into the form of discrete indivisible units. Thus, when it comes to the random allocation of research grants, the divisible resource, money, is transformed into the indivisible resource, grants, and the allocation mechanism itself is contrasted with the allocation of money as a divisible resource, for example, in the form of an equal distribution of money among all applicants (Roumbanis, 2019).

Second, lotteries can be applied when it comes to the allocation of roles, positions, or responsibilities. The best-known practical examples are random (or pseudo-random) jury selection, appointment to public office, and military conscription (Dowlen, 2008; Fienberg, 1971). While these situations may involve elements of the distribution of benefits or burdens, they differ from the first group in that they involve the active pursuit of a particular activity over a sufficiently long period of time. A variation of this type can be considered the assignment of agents to different but homogeneous tasks, as in the practice of randomly assigning cases to judges (Eisenberg, Fisher, Rozen-Zvi, 2012).

Third, the lottery can be used as a means of determining a strategy or mode of action. Such possibilities are usually analyzed according to the logic of strategic games, but can also refer to choosing policies or certain conditions of realizing sociopolitical processes. Examples include the use of random moves in games to increase unpredictability, the widely cited example of the Naskapi Indian tribe's practice of selecting hunting grounds, or proposals to randomize the timing of elections or to randomly divide electoral districts (Elster, 1989). The immediate alternatives in this case are precisely modes of action, while the actor remains the same.

Fourth, randomness can be applied to the choice of the very principles according to which the parties act. An example is J. Elster's hypothetical scenario of a random choice of laws, justified by reference to the cyclical nature of the change of political parties implementing different bills (Elster, 1989: 90).

Thus, in most cases, the problem of social mechanisms based on randomness is reduced to the problem of choice, where the alternatives are discrete. Therefore, such situations can be formally described using the tools of operations research. The second essential feature of most of the situations discussed is the scarcity of allocated resources or opportunities. This means that a lottery is usually considered applicable when the number of alternatives is greater than the number of selected outcomes, which is implied by the notion of "choice." For example, a lottery requires that the number of claimants for a good is assumed to be greater than the number of goods, as in the case of a shortage of expensive medical treatment. Similarly, in the case of political lotteries, the number of seats on a representative body or jury must be less than the number of eligible holders in order to speak meaningfully of a lottery.

Although both conditions (discreteness and scarcity) are implicitly or explicitly assumed in most versions of randomization, neither of them is strictly necessary for the gen-

eral idea of applying it to social problems, and choice is not the only type of problem to which this approach is potentially applicable. Randomness, whether it is objective, associated with the uncertainty and unpredictability of physical processes, or epistemic, associated with the impossibility to establish an objective state of affairs, does not require a discrete set of alternatives. Many true random number generators that provide a randomization strategy are based on physical processes that are inherently non-discrete (e.g., white noise) and are reduced to discrete forms through certain procedures. It follows that, if desired, the idea of randomization could also be applied to continuous processes or divisible resources, that is, to situations that do not involve choosing from a fixed list of alternatives. As hypothetical examples, one might consider using stochastic processes to allocate time, effort, money, or other resources that can be considered divisible in a practical sense, or to determine the route and speed of travel (for humans, vehicles, or objects). Regardless of what an attempt to apply a non-discrete randomizer to social affairs might look like (I show some possible applications below), it is important to point out the possibility. For the same reason, the notion of a lottery is narrower in scope than the notion of randomization, since a lottery by its nature deals only with discrete alternatives.

The second aspect of typical lotteries, scarcity, is also not strictly necessary. The use of a lottery can be considered rational when the number of benefits exceeds the number of applicants. However, there are no restrictions on the possibility of using a lottery in situations where there is no scarcity. In some cases, using a random is also recognized and considered rational mechanism in deficit-free situations. The most common example is random assignment, an essential research tool that involves randomly assigning of survey objects (e.g. individuals) to groups under different conditions (e.g., experimental and control) in order to study the effect of the manipulated condition (Gueron, 2008).

Going further, it is possible to consider the possibility of using randomization for solving tasks that are not directly related to the choosing among several alternatives, and not directly linked to decision-making in general. Decision-making and choice are just one type of tasks that individuals and societies face. If a general mechanism only applies to one class of tasks, its potential is significantly reduced . However, other types of tasks, such as judgment, evaluation, or problem-solving, may require the same normative criteria as those considered to be the main reasons for using a lottery, e.g., fairness and impartiality. For example, a random selection mechanism could be used to select jurors or political representatives. However, this selection procedure would not affect the grades, modes of judgment, or ability to deal with complex issues that the chosen individual must demonstrate. A lottery may ensure a fair and unbiased choice among alternatives, but it does not guarantee a process to generate them. In this situation, the control of a single party over the list of alternatives has the potential to undermine the fairness and impartiality of the selection procedure.

Can randomization be applied to other types of tasks, such as judgment, evaluation, invention, or problem-solving? At first glance, the answer seems obvious: all of these tasks require the work of reason, whereas randomization is a mechanism that is inherently mechanical, a-rational, and non-subject (Dowlen, 2008). It is possible, however,

that randomization could be applied to such tasks, *as an essential part* of a more complex solution. Such a possibility would be significant in terms of considering randomization as a general approach that is not limited to a specific class of situations or tasks. Randomization can play a role role in solving most socially important problems.

Take for example the task of assessment and evaluation: student papers, grant applications, policy effectiveness, etc. Hypothetically, it is possible to randomly assign grades, even if it seems strange and meaningless. However, mechanical randomization, , is not the same as evaluation, a thought process in which the mind analyzes information about an object and compares it to certain normative criteria or standards. Therefore, such an application of randomization seems wrong. However, we can use a random selection of evaluators to improve the overall quality and validity of evaluations, so that randomization becomes not the whole solution, but an essential element of it. By similar logic, policy development is a complex, time-consuming process that involves detailed analysis of complex information and the development of a system of rules, goals, and procedures in certain areas. Randomization does not directly apply to such tasks, but it can be an important element of a solution — for example, as part of a team-building process, used to increase cognitive diversity and presumably improve the quality of final decisions (Landemore, 2013). These examples demonstrate that randomization can be at least an element in solving problems not related to decision-making. This perspective becomes clearer when one considers the reasons that may underlie the use of randomization as a rational strategy.

The rationale for randomization: Why use lotteries?

Understanding the potential of randomization as a rationally and intentionally designed social device or strategy implies not only identifying its applicability, but also justifying its choice, and the reasons why it can be preferred to other mechanisms. What can be the rationale for choosing randomization when we speak of it as a way of solving significant social problems beyond trivial cases of low-value choices under conditions of indifference?

In the most general sense, such justification can be either normative or functional, although there is no precise boundary between the two, and they often overlap. In the first case, the use of a random choice is justified because it satisfies a certain normative criterion, a certain conception of what is right; in the second case, it is justified because it has instrumental value and contributes to the achievement of certain goals or functions, which themselves may, but do not necessarily have to, be subject to normative evaluation. Below is the list of possible reasons and motivations for choosing randomization when dealing with social problems. Some of them are regularly mentioned in the discussions, some are rare, and some have probably never been mentioned before.

Equality

The most common justifications for lotteries are based on moral grounds, namely, the ability of randomization to ensure fairness, justice, equality, impartiality, or non-discri-

mination. Although these concepts are not identical and can sometimes be contradictory, they share the common idea that social randomization somehow ensures equal treatment. Typically, these rationales are closely related and derive from a view of the lottery as a mechanistic, non-subjective mode of decision-making in which alternatives have an inherently equal probabilities of being selected (e.g., Broome, 1990; Dowlen, 2008; Fienberg, 1971; Goodwin, 1984; Saunders, 2008, 2012; Sher, 1980; Stone, 2007). In this way, the very possibility of the influence of personal preferences, predispositions, or errors related to the decision-maker's personality, group affiliation, or contextual conditions is eliminated. Nevertheless, the content of justifications may vary depending on the type of lottery and the substantive interpretation of the normative principle. In politics, for example, , the lottery voting model is discussed, a system in which one ballot is randomly selected from the voters' completed ballots to determine the outcome of the election. (Amar, 1984; Saunders, 2012). This system is opposed to the traditional majority rule model, in which the winner is determined by a majority of votes. Both models are based on the principle of equality because they recognize the equal voting rights of each voter. However, supporters of the lottery model believe that it more fair and just, as it provides not only equality of votes, but also equality of opportunity to influence the final result. In contrast to the majority rule, minorities have a real chance of being elected, thus solving the problem of their discrimination. P. Stone (2007) calls the lottery a truly fair mechanism for distributing certain types of limited resources, inferior only to equal distribution, but applicable to indivisible resources. B. Goodwin, describing a hypothetical model of social organization based on the lottery principle for distributing of positions in the social structure, points out that it meets two criteria of fairness: impartiality and reduction of inequality (Goodwin, 1984: 195). Such a system is opposed to the liberal model, which proclaims equality of rights and opportunities but legitimizes the inherent inequalities that exist between people and that are usually beyond their control. Impartiality also forms the basis for justifications of lotteries that involve solving problems of evaluation, as is the case with the random selection of jury members or judges in courts.

Despite these differences, arguments about the fairness, equality, and justice of lotteries form a relatively coherent core of their normative justification that can be found in many existing approaches. Whether or not lotteries lead to justice, is a matter of debate, because there are many situations in which random allocation conflicts with other aspects of moral decision making, such as the difference in needs (it is unjust to allocate rare medical treatments regardless of who needs them more). However, such debates concern the conditions under which randomization is just, not whether it provides "equal treatment" or not.

In a practical sense, the reference to equality and fairness can be problematic, because of existing power inequalities and selfish motivations. For example, Waxman and McCulloch (2022), propose their radical project for democratic transformation based on mass random selection of society's representatives for political decision-making. They justify its advantages by arguing that it provides true democracy, i.e., real, not fictitious, equal opportunity for citizens to participate in decisions that affect their lives. Assuming

that such a system is indeed feasible in principle, it is safe to say that it will never be fully realized in most real-world settings *for this very reason*. A system that aims to directly deprive privileged individuals and groups of their advantages will inevitably face active resistance and has a very low chance of success.

Despite such barriers, which will be discussed in more details below, the equality-based justification for randomization is supported by the normative foundations of modern societies. Most of them explicitly declare and accept equality of rights, fairness, and justice as guiding principles for developing rules, policies, and social institutions. Since equality is an inherent, substantive attribute of a lottery, decision-makers who explicitly accept the equality and justice as normative guiding principles must consider it a legitimate approach to addressing social issues.

A separate line of equality-based moral justification for lotteries refers not to the moral quality of lottery-based decisions, but rather to the conditions, under which rational and moral actors establish the principles of social order. John Rawls (1999) describes this as the so-called Original Position — an idealized scenario, in which independent and morally equal actors develop the general rules and principles of fairness that underpin the social order. The Original Position claims that justice is achievable when actors develop the general rules and principles under the "veil of ignorance," meaning that they are not aware of their own position in society, the distribution of goods and opportunities, knowledge, or even psychological traits, so they cannot know whether the social order benefits them. Some of the most transformative applications of social randomization, particularly the assignment of social positions, can be seen as the best possible practical approximation to the Original Position. If actors cannot predict where they will be in the social structure after the toss of a coin, they must have a vested interest to ensuring that the whole of social order is just. Note that in this case randomization as such doesn't implement any conception of justice. It does, however, set the stage for the development of general principles of social organization, that will be considered just by independent actors.

Epistemic rationality

Another normative criterion for justifying randomization is based on epistemic rather than moral grounds. Advocated by Jon Elster (1989), it states that in a situation where it is impossible to reliably establish rational grounds for choosing one of the alternatives, it is reasonable to choose a mechanical, non-subjective procedure. Acknowledging the limited capacity of human reason is more honest from an epistemic point of view than denying it and trying to invent pseudo-rational grounds for choice. Bounded rationality is not just a technical, pragmatic problem. It is a defining characteristic of the human mind and a fundamental principle of the functioning and evolution of society. There is a dramatic gap between the number and complexity of decisions required by the social system, on the one hand, and the limited cognitive capacity of the human mind, on the other. As social evolution is accompanied by an increase in complexity (Turchin et al.,

2018), this gap is only widening. When a recruiter considers two applications, or a scientist has two theories to test, it is reasonable to demand that both be considered carefully and impartially, in accordance with corporate policy or the ethos of science. When there are thousands of alternatives, such a demand has no reasonable basis.

To deal with this problem at the individual level, the mind uses a number of implicit mechanisms that allow decisions to be made without conscious judgment and careful reasoning. The dual-process theories of the human mind (Frankish, 2010), which are now slowly penetrating sociology (e.g., Lizardo et al., 2016), describe the irreducible nature of the implicit part of the human mind (Type I processes) and its contribution to social cognition and behavior (Sherman, Gawronski, Trope, 2014). As a result, many biases and prejudices that underlie the "irrationality" of human actions are very difficult or impossible to eliminate (Paluk et al., 2021). To address the problem at the societal level, societies develop procedures, rules, and institutions that can serve as non-human decision-makers (Douglas, 1986). In both cases, the limited capacity of individuals to act rationally is compensated for by mechanisms that don't require reason or judgment. From this perspective, if there are good reasons to expect that actors will not be able to act rationally, .it would be reasonable to prefer an a-rational solution over an irrational one.

A different line of reasoning suggests that, in reality, chance already plays an important role in many human decisions and behaviors, as well as in the distribution of resources, opportunities, and benefits (Goodwin, 1984; Elster, 1989; Manis, Meltzer, 1994). The notion of "natural lotteries" points to the fact that we cannot control many inequalities that affect our merits and achievements, such as where we are born, our parents' education and income, or our talents. If we accept the principle of the initial equality of actors, we must agree that revealing these natural lotteries is not only fair, but also rational, because it brings the decision-making conditions into the light of reason. Thus, it is reasonable to make randomness explicit and controllable, because only an understanding of the decision-making mechanism and the recognition of the factors influencing the decision ensure its rationality. When randomness is hidden in an individual's biography, structural dispositions, or contextual conditions, this understanding is absent. Therefore, the rationality of a decision cannot be guaranteed.

If this were a purely normative paper, the reader might expect a more in-depth and detailed analysis of the moral and epistemic justifications for social randomization. However, the purpose of this section is not to justify lotteries, but rather to identify potential justification strategies that rational social actors (in this case — actors who understand and accept the social, collective nature of a certain issue, and who are able to describe and provide the rationale for their actions) can develop to address important social issues. From this sociological perspective, what matters more is the pragmatic, instrumental value of lotteries, i.e., their ability to achieve certain goals and/or to do so better than other ways. Guided by practical rationality, social actors may use randomization for various purposes, and it is these actions, that have consequences for social organization and social processes. The following examples illustrate the variety of pragmatic motivations

underlying the possible choice of social randomization to address the problems of collective life.

Preventing Abuse of Power

One of the most important functional reasons for using randomization is to prevent negative behaviors, reduc opportunities and motivation for corruption, nepotism, alliance formation, and other forms of abuse of power or position (Elster, 1989: 112; Dowlen, 2008; Alekseeva, Loshkariov, Parenkov, 2018). If the assignment of top positions responsible for the allocation of valuable resources becomes random and temporary, it reduces the effectiveness of bribery and rent-seeking behavior. If the system of random selection of decision-makers is extended to the entire political system, as in the Waxman and McCulloch model, personal interests to participate in illegal exchanges will be reduced, and a whole class of professional politicians for much of grand corruption will disappear. Jon Elster suggests that, in a developed democratic society, the purpose of using a lottery may not be very relevant, since there are other democratic procedures available to prevent corruption, and the lottery system has important negative consequences (Elster, 1989: 112). However, such a view formulated within a developed democratic society tends to underestimate the importance and destructive effects of corruption and abuse of power in much of the modern world and therefore underestimates the relevance of this argument.

This type of justification applies not only to political corruption and abuse of political power but also to other situations, including those of a market nature. An example of this type is the Shanghai authorities' plan to regulate the housing market (Ni, 2022). In order to combat speculation, improve housing affordability, and stabilize the housing market in one of the world's most expensive and densely populated metropolitan areas, the authorities have developed an entitlement system that gives priority to the most needy and conducts a lottery among them. This mechanism can be interpreted in normative terms of fairness, but it is primarily functional to regulate the housing market.

Motivation/Participation

Along with demotivating socially undesirable behavior, randomization can be used to increase motivation for socially desirable activities. In situations where people feel they have little chance of gaining a position or influencing the outcome of a collective endeavor, they often prefer not to try. Typical examples are political absenteeism or decisions not to apply for grants or jobs. However, if they knew that all eligible individuals had an equal chance, they might be motivated to participate. The motivational function of lotteries has been advocated by J. Elster (1989), and highlighted by O. Dowlen as a way to increase political participation (Dowlen, 2008). J. Fishkin (2009), who developed the idea of deliberative polls (a combination of random selection and deliberation), argued that they contribute to citizens participatiom and motivation. A similar argument has

been developed by C. Lopez-Guerra (2011) with respect to the enfranchisement lottery, which is a kind of randomly selected citizen jury responsible for political decision-making. Importantly, in the latter two cases, motivational effects are associated not only with equal access to a position, but also with the fact that these positions involve deliberation in small groups, where each participant's voice has greater value compared to traditional voting or public consultation procedures.

Cost efficiency

Most commentators recognize that the lottery is one of the most cost-effective decision-making methods, but, surprisingly, they are not inclined to attach much significance to this when justifying its use. However, cost savings is one of the strongest arguments for the practical implementation of the decision mechanisms by economic and political actors. Moreover, when it comes to the allocation of public resources, the issue of savings can also have a very specific moral dimension. If making decisions on the allocation of limited resources involves significant transaction costs to administer the process, then adopting a much cheaper method could significantly increase the amount of resources that go directly to solving a socially important task. A pertinent example is the distribution of research grants. Traditional mechanisms based on peer review and multi-stage evaluation, when faced with a large number of high-quality applications, are associated with high evaluation costs and significant negative consequences such as demotivation of researchers and limitation of innovative approaches (Gillies, 2014; Roumbanis, 2019). Abandoning the traditional system in favor of randomly selecting applications that meet minimum quality and eligibility criteria has the potential to free up a large number of man-hours of highly skilled reviewers' labor and increase the number of projects implemented, thereby increasing the overall social value of the entire grant system. A similar logic applies to the possibility of using random selection for top positions in organizations. In a situation where hundreds of qualified candidates may apply for a single position, the attempt to make a selection based on the principles of meritocracy and impartiality entails such a time commitment that in most cases is not justified.

Simplicity

Partly related to the issue of cheapness, the simplicity of basic randomization methods has an independent and equally important significance, especially in the political sphere. Complex decision-making systems ranging from expert panels to intelligent systems powered by big data can be highly efficient and take into account numerous rational factors. However, ordinary people and even many experts typically lack the ability to comprehend these systems or control the validity of their decisions, even when all relevant information is readily available. In contrast, the lottery is the simplest of all the possible decision-making methods. The essence of this method is intuitively clear for

most people. This is an important democratic advantage that allows citizens to understand and control the key procedures underlying the governance of public life. Simplicity guarantees the broad and universal applicability of lotteries in different social contexts. A likely consequence of this simplicity may also be an increase of trust in lottery-based institutions and the legitimacy of the outcome.

Of course, randomization mechanisms, such as those underlying software- or hardware-based random number generators, can be complex and incomprehensible to ordinary users. As "black boxes" to them, they may raise reasonable suspicions of possible manipulation. Moreover, even simpler options, such as the classic lottery, may not provide the level of opportunity required for a fair lottery, and history is replete with examples of such distortions (Fienberg, 1971). Nevertheless, for most real-world situations, there are variants of the randomization strategy that are simple enough to be understandable and unpredictable enough to be considered fair. Even if the parties lack complete confidence in the randomizer's honesty and mutual trust, there are practically acceptable solutions. For example, the different parties could use different randomizers, and the final outcome could be a combination of their results. Even for the most complex solutions, it is possible to reduce the problem to a series of binary choices made using a coin flip. For example, if one candidate must be selected from the entire world population, only 33 flips (233~8.6 billion possibilities) will suffice.

Representation

Random sampling is the key approach used in the social sciences to draw conclusions regarding the entire population by analyzing relatively small numbers of people. The same logic applies in the political sphere when it comes to the formation of representative bodies of government or other forms of democratic representation. According to J. Fishkin, the founder of the first regular political polls in the U. S., George Gallup, considered them a proxy for direct democracy, capable of accurately representing the preferences of the entire nation (Fishkin, 2009: 15). Recently, this idea has evolved. The lottery voting model, based on the random selection of voted ballots, combines the advantages of lotteries and traditional voting, achieving a more accurate representation, which is particularly valuable in forming representative bodies (Amar, 1984; Saunders, 2010; 2012). More sophisticated models, such as deliberative polls and enfranchisement lotteries, attempt to the principles of combine lottery with those of deliberative democracy. They use the random selection of citizens to form temporary advisory dies that are involved in the deliberation of policy alternatives (Fishkin, 2009; López-Guerra, 2011, 2020; Alekseeva, Loshkariov, Parenkov, 2018). The use of a lottery is assumed to provide greater representation of opinions during the deliberation phase, which, among other things, better corresponds to the democratic ideal. Representation can also be an important argument for the work of other collegial bodies, such as juries, providing a better understanding and evaluation of cases in terms of standards set by society as a whole (Elster, 1989: 95).

Cognitive diversity/Quality of solutions

Although representation may have its value from the point of view of the democratic ideal, it can also be viewed from an instrumental perspective. The use of a random selection mechanism for collective bodies or institutions has the potential to improve the quality of collective intelligence and outcomes through greater cognitive diversity. Exactly this kind of argumentation plays a key role in justifying the lottery principle in the selection of representatives, proposed by H. Landemore (2013). The rationale is based on psychological research showing that diversity can be more important to problem-solving groups than individual competence. People with different experiences, knowledge, skills, and psychological traits can look at a problem from different angles and propose the most effective solution, which is particularly valuable when developing policy recommendations. Similar considerations apply in other fields. Due to the quantitative growth in science and the wide use of quantitative metrics, the ability of researchers and science in general to identify and focus on new ideas is declining (Chu, Evans, 2021). One of the key arguments in favor of using a lottery system to distribute research grants is its ability to expand funding opportunities for unconventional, innovative projects that are typically excluded by researcher's narcissism. This can help to diversify research strategies and increase the efficiency of cognitive labor division (Gillies, 2014; Roumbanis, 2019). In the corporate sector, the growing interest of corporations in diversity management also aligns with this argument, which opens opportunities to lotteries as a possible way to ensure diversity of the workforce.

Social heterogeneity and social learning

In ordinary life, individual experience and activity are largely structured by internal and external factors. Due to institutional and personal choices, we find ourselves trapped in certain informational, epistemic, and social domains, and modern information technology only increases the likelihood of becoming trapped in them. For example, by selecting information and arguments that are more in line with one's own ideas, a person can close himself off to alternative points of view. This is reflected in the popular concepts of informational bubbles and echo chambers (Cinelli et al., 2021). Institutional and personal choice contribute to the selection of certain positions for people with a certain set of psychological traits which are enhanced in an environment where individuals share similar beliefs, as in the case of authoritarianism in law-enforcement institutions. Choosing a place to live near people of our social status triggers mechanisms of auto-segregation and ghettoization, which can become a serious social problem. There are various ways to counteract the negative consequences of these processes, but one of the simplest and most effective is randomization. Consider these hypothetical examples:

- random assignment to schools and, probably, institutions of higher education;
- random distribution of the workforce according to place of work or area of employment, considering qualifications and profession;
- determination of place of residence through a periodically held lottery;

- mandatory inclusion of randomly selected information resources in the body of content consumed by an individual;

- regular participation in social interactions with people selected randomly, for example, in advisory bodies assumed in deliberative polls and enfranchisement lottery models.

All of these and other similar examples are characterized by the introduction of a system that explicitly rejects the primacy of individual, personal choice. However, abstracting from the question of how permissible and feasible this is in a democratic (or even non-democratic) society, as well as the question of the possible costs of such an approach, we can note that all of them can theoretically be used to increase the social heterogeneity of many significant social communities and institutions, reducing social disunity and fragmentation, increasing tolerance and inclusiveness of society as a whole. For example, introducing elements of randomized allocation into law enforcement or other hierarchical entities can prevent the negative effects of institutional and personal selection that lead to overrepresentation of individuals with high social dominance orientation and/or authoritarianism in these institutions (Pratto et al., 1994; Gatto et al., 2010).

Individual creativity and openness to new experiences

Going further, a similar logic applies to the use of randomization to stimulate individual creativity and openness, to develop emotional and social intellect. The need to engage in new social relationships, and new activities, and to be exposed to alternative points of view and information, has its costs, but can be a way to expand social and intellectual experience. For example, if we imagine a hypothetical situation in which every person, in addition to his/her main activity, devotes some time to socially non-prestigious, unskilled but necessary labor, selected through random choice, this not only partly solves the problem of a fair distribution of burdens, but also provides a person with the experience necessary for a better understanding of the working and living conditions of other social groups and other types of activities. Elements of random assignment of employees to job positions within an organization may increase their understanding of the organization, and improve organizational communication and interdepartmental cooperation. Information consumption in science, focused on highly specialized and highly relevant information, supported by bibliographic search and navigation algorithms, may limit the availability of ideas and knowledge from related fields that could become sources for new hypotheses, research strategies, and approaches. For example, some studies show that there are many knowledge claims in one scientific publication. These claims can be identified by various competent readers (Shkurko, 2019). Search engines, AI-based summarization algorithms, or individual information search strategies used by scientists, may significantly reduce the probability of identifying knowledge claims embedded within particular publications beyond the most frequently occurring ones. Incorporating elements of random navigation, probably under some additional conditions regarding the quality and comprehensibility of information from related research areas, has the potential to broaden the scientific erudition of researchers and stimulate creativity.

Protection of personal freedom and prevention of manipulations

While some randomization-based solutions restrict individual freedom, other solutions can increase it. Here, freedom is viewed as protection against external manipulation. Both democratic and non-democratic regimes allow for a wide range of tactics and tools to manipulate human beliefs and behaviors that individual, organizational, and institutional actors can intentionally use to pursue their goals. Current advances in digital technologies, from predictive analytics to algorithmic recommendation services, provide extremely powerful tools for correctly identifying personal beliefs, attitudes, and behavioral patterns, and for personalizing information inputs for control and manipulation. As the digital infrastructure and technologies become more pervasive and sophisticated, fueled by both corporate interests and government policies, resisting these manipulative techniques at the individual level becomes more challenging, almost impossible. Along with institutional solutions, such as personal data regulations, which are of vague value, introducing elements of randomization into personal life and behavioral approaches can be useful. The idea is that introducing elements of randomness will reduce the effect size of any statistical measure used by predictive technologies, thus diminishing their commercial or political value.

Specific applications of this idea may vary. For example, to minimize the effectiveness of predictive technologies and targeted information influence (e.g., commercial or political advertising), it is possible to hide your search request among several randomly generated ones; to randomly assign "likes," "dislikes," and digital feedback to media content; or to use randomizers to increase the variety of information or entertainment content consumed (similar vein to the approach in scientific search mentioned above). It is easy to see how such techniques can be implemented in applications designed to automatically generate random browsing or shopping requests or feedback.

Beyond the digital realm, there are many ways in which individuals can use similar randomization tactics: from at least partially randomized consumption patterns to choosing random vacation routes , or even randomly deciding which of the available job positions to apply. At a more institutionalized level, consider the possible use of randomized selection among several candidates or courses of action, proposed and promoted by various advisors or interest groups. Of course, all of these types of behaviors have lots of constraints and potentially harmful consequences. However, the idea here is that they reduce the objective possibility for any external actor to correctly predict individual behavior and develop manipulation techniques.

Security

While randomization is widely used for information security purposes, such as in cryptography or in the examples above, it can also contribute to the physical and social security of vulnerable populations in some situations. Consider the acute humanitarian crisis in a densely populated area, such as in Gaza during the Israel-Hamas war in 2023-2024. Acute

food shortages required international organizations and states to attempt to provide humanitarian aid. However, organized supplies using humanitarian convoys can easily face enormous security threats: fighting over food, looting of convoys, murder of drivers, deaths from overcrowding — which were actually the case in Gaza. An alternative option would be a randomized delivery of small quantities of humanitarian aid using drones or other means. Here, randomized delivery means that the location of delivery, and probably even the time of delivery, is determined by a stochastic process. The goal is to prevent the concentration of people at the expected delivery site, by making it unpredictable, thus reducing the basis for violence and overcrowding. This logistical solution not only reduces security risks but also contributes to distributive justice, as it increases the chances of the most vulnerable individuals to receive aid. This example also illustrates the potential use of non-discrete randomization, which is often overlooked in the discussions.

Psychological grounds

There are several psychological reasons to use randomization in individual behavior, such as novelty seeking, entertainment, or status negotiation (consider the psychological functions of Russian roulette). More interestingly, individuals may use a lottery to reduce the cognitive load of decision-making and to avoid effortful and psychologically burdensome trade-offs (Ostreloch, Frey, 2019). When an individual faces a difficult and ambiguous situation, when there is no clear and unequivocal option, there is a strong motivation to find an answer — the so-called need for closure (NFC) effect. In such situations, a lottery can be *both* rationally and psychologically functional in providing an answer.

However, this type of situation is not simply a matter of individual psychology but can be a part of institutionalized solutions. Consider the position of a top official who is in charge of the immediate response to a nuclear attack. There are only a few minutes to analyze the information and make a decision. Such a high-stake decision puts enormous psychological pressure on the decision-maker, and can be paralyzing. Although training can familiarize the decision-maker with such a situation to some extent, the cognitive difficulty of the task and the high responsibility create the basis for the NFC effect. Assuming there is a set of pre-established response scenarios, adopting a random choice approach may be a viable strategy. Note that it may not only be rational in the sense \ that it replaces a biased intuition with a strategy that explicitly assumes a lack of solid grounds for the decision. It is also a solution that addresses the psychological stress of the situation and makes this rational decision possible.

There are other reasons why individual or collective actors may choose this approach. Here are some examples:

Counteracting the Matthew effect

The Matthew effect is a general social stratification mechanism that reinforces subtle initial inequalities and leads to greater inequality in various areas, from income to educa-

tion (Merton, 1968; Rigney, 2010). For example, slightly better admission grades lead to different educational tracks, so that those with higher grades get into a better university, receive a better education, acquire greater social and symbolic capital, and then enter the labor market with a greater advantage, leading to higher income and career opportunities, eventually resulting in a much more advantageous position compared to the initial subtle differences. Although societies develop policies to mitigate the impact of the Matthew effect, introducing elements of randomization can also help. Consider a mechanism, when at least some of the educational opportunities are randomly allocated among all eligible individuals who have admission grades above some minimum level. In such a situation, small differences in grades don't affect the outcome and don't contribute to increased inequality. Note that this use of randomization is not intended to address the problem of inequality as such, but rather to mitigate the social mechanisms that lead to the reproduction and reinforcement of inequality. The goal may be to retain the benefits of meritocracy while expanding opportunities for others to achieve comparable levels of competence. For example, a grant system might rely on rigorous evaluation of applications, but randomize the right to apply so that previous funding does not increase one's chances of winning the next grant. The possible goals of such a mechanism are to maintain both the quality of research, the diversity of science, and the quantity of motivated researchers.

Mitigating negative effects of competition

Although competition is considered beneficial for markets (economic, political, intellectual, etc.), if it is too hostile, these effects can be reversed. At the individual level, competitive pressure can lead to depression, anxiety, and other harmful outcomes (Gilbert, Masclet, Villeval, 2009), as well as unethical behavior or lower performance in organizations (Charness et al., 2014). When individuals know that their career success is partly determined by a blind mechanistic process (e.g., selection for a higher position among several approximately equal employees), this can reduce psychologically harmful perceptions and emotions, leading to a healthier social environment.

Trust building

This rationale is closely related to the prevention of abuse of power, but focuses on the more remote and indirect effects. In a situation of low social and political trust, especially institutional trust, the use of a simple and transparent lottery principle to elect representatives, form boards, committees, juries, or other governance mechanisms can reduce people's concerns and increase their trust in institutions. For example, if electoral processes are not transparent and are controlled by a political force, citizens may distrust it and the political system as a whole. To restore trust (if such a task is on the agenda), one can choose to randomly appoint eligible citizens to election commissions. Since this is a relatively simple task, there are no significant risks to the procedural effectiveness of

elections, and due to the absence of prior social ties and obligations among the recruited members, there are fewer grounds for suspicion.

Addressing the principle-agent problem in political decision-making

A typically neglected aspect of the lottery-based mechanism in political decision-making, emphasized by M. Ostreloch and B. S. Frey (2019), is that it introduces a new type of relationship between an individual and society in politics. While traditional forms of democracy rely on elected representatives, whose role is to represent the population, the random selection of an individual decision-maker leads to a different situation, with the subsequent principal-agent problem. This decision-maker represents no one but himself and is not an agent in the strict sense. The idea behind this model is that the very mechanism of random choice guarantees the representation of decisions and underlying interests. Aggregation of multiple such personalized decisions can further guarantee representation without creating a principle-agent problem.

This list of reasons to adopt a randomization-based approach is not exhaustive, but shows the range of possible social problems, where it may be relevant and considered a rational option, even if it is rejected for some reason. In many cases, the use of elements of randomization can simultaneously pursue different goals and motivations. Although the detailed elaboration of any particular solution requires analysis of the costs, barriers, and potential side effects of randomization, this is similar to any other approach, and does not raise doubts about the feasibility and reasonableness of such an option, i.e., it has some rational basis.

The Default Randomization Principle in social affairs

The previous sections have shown the variety of ways in which actors can consider using randomization to address social and political issues. The problem, however, is that randomization is generally not even considered as an option beyond minor issues and specific situations. In fact, in most cases when some form of a lottery is available, no one even tries to analyze this possibility.

To address this problem, let me propose a heuristic principle, which can be called the Default Randomization Principle (DRP). It claims *to consider randomization as a general tool or approach to social and political affairs, and use it as a default option in any situation that allows its use in principle.*

The heuristics of this principle are both pragmatic and theoretical. Pragmatically, it can be used to find new and creative ways of solving important problems in various areas of social life. Theoretically, it is a kind of thought experiment that stimulates the analysis of possible forms of social organization, their underlying conditions and possible consequences, and ultimately a better understanding of the principles and mechanisms underlying the functioning of social systems.

When randomization is taken as a default option and common practice, it seems much easier to find ways to use it rationally and effectively. Moreover, using the DRP and

accepting the idea that randomization is a general-purpose tool, seems to make it easier to respond to some typical objections to lotteries. But first, let me clarify the meaning of the principle, what it is, and what it is not.

First, default randomization doesn't mean chaos of social affairs. It doesn't mean using lotteries anytime, anywhere, and anyhow. It is a principle for responsible actors seeking at least instrumentally rational solutions to important social problems. It is applicable when the situation is described in terms of one or more of the normative or functional criteria listed in the previous section.

Second, randomization is not the final, definitive solution, but rather an option. This option can be rejected if there are important reasons to do so. However, it is the *default* option that should be considered in a relevant situation. Viewing it as the default option significantly reduces the entry barriers to using lotteries: instead of finding arguments in favor of a lottery, actors should focus on arguments about why *not to use* a lottery in a relevant situation.

Third, the ultimate basis underlying the DRP is the range of possible reasons for choosing it. This means that instead of focusing on one ultimate justification, as is often the case in the literature, the choice of randomization should depend on the assessment of multiple criteria and take into account various potential advantages and disadvantages. This is particularly crucial when lotteries are scrutinized solely in moral terms or other normative standards. However, there are many more functional advantages of lotteries that are probably more important for their implementation and use in practice.

Fourth, the principle doesn't require the use of a lottery as the sole and primary constituent of a solution. It can be combined with other principles or procedures, as in the case of lottery voting. The principle only claims to consider using randomization in any form whenever possible, unless there are important reasons not to do so.

Fifth, randomization by default means that the use of randomization-based solutions is widespread in different domains of social and political life. If it is an accepted general-purpose social device, then many actors use it regularly and in different forms to address many different problems and tasks.

With these clarifications in mind, it is possible to address key issues related to the use of randomization in real life and typical criticisms of this approach.

The Default Randomization Principle and arguments against lotteries

The DRP facilitates the recognition of novel solutions to social problems by demonstrating the variety of its possible applications and purposes. However, it would be neither fair nor rational to focus on these possible ways while ignoring many potential reasons not to use them. There are important arguments in the literature against using lotteries in social decision-making, and it seems correct to say that choosing to use some form of lottery in a particular situation is a matter of looking for the balance between pros and cons.

According to the DRP, randomization is an option, not the universal guiding principle. Its use to address a social problem requires careful consideration, and is associated

with costs, barriers, and consequences that may lead to new social issues. Therefore, the identification of counter-arguments against any particular randomization-based solution, and the conclusion about its applicability and acceptability, is a matter of a more focused and case-specific analysis. The aim of this section is not to provide a comprehensive review of all possible arguments against randomization, which are context-specific, but rather to illustrate how the DRP can address some of the most typical and common challenges associated with this approach. Such objections can be based on theoretical judgments or practical concerns.

1. Lotteries devalue reason and/or morals. A common type of argument against the use of randomization beyond minor issues is that it undermines decisions and solutions based on reasoning, rational or moral judgment, and replaces them with blind forces (e.g., Wolfle, 1970). Empirically, this argument has no solid grounds. Explicit social randomization has never played an important role in social and political affairs, so it had no chance to devalue reason or ethical principles. On the contrary, social institutions provide enough opportunities for individual and collective actors to make decisions, develop policies or find solutions that are fair, reasonable, and morally justified. The fact that they too often fail to do so is an indication that there are more important sources for the devaluation of reason and morality.

Theoretically, the argument relies on a narrow, decontextuaized understanding of the moral or epistemic grounds of a lottery, overlooking the diversity of situations and purposes of social randomization emphasized by the DRP, as well as the conditions, under which a solution is implemented. Elster's argument that there is nothing irrational about accepting the objective limits of human reason and using random selection when reason does not provide a clear solution to the problem is not the only response to this criticism. Random choice can be justified by reason and moral judgment even in the absence of epistemic limits. From the perspective of the DRP, explicit normative justification for a particular choice is not the only evaluation criterion. If a decision takes into account cost, speed, the quality of outcome, or other criteria, the absence of an explicit judgment in favor of an alternative doesn't matter. Rather than a narrow understanding of the moral and rational reasons for a particular decision, the DRP takes a broader, contextualized approach that looks for reasons for choosing the very procedure of decision-making. If moral and rational judgment focuses on the conditions, under which a decision is implemented, and not merely on the evaluation of available alternatives, then the choice of a randomization procedure itself may satisfy the normative criteria. If there are good reasons to expect that the actors responsible for making certain decisions (e.g., evaluating applicants) are lazy, prejudiced, and think they are underpaid, and there is no obvious way to change the situation immediately, then those who are responsible for designing the decision-making procedure, may reasonably prefer a mechanistic, a-rational solution.

Moreover, random selection may be only one component of the solution to a problem, and deliberation and moral judgment may be implicated in other components of the solution. For example, using some form of randomization to determine who will make

political decisions doesn't prevent deliberation and moral judgment from being involved in policymaking, evaluating decisions, and controlling the decision-maker through traditional mechanisms. In general, reason and morality can manifest themselves in justifying the choice of a lottery for a particular type of situation, and in developing the procedure for its implementation.

2. Lottery has no moral advantage against arbitrary choice. This argument has been elaborated in detail by T. Henning (2015), who criticizes three strategies of moral justification for lotteries, arguing that they are not morally better justified than arbitrary choice. Moreover, using the lotteries to avoid difficult moral decisions encourages the use of simple mechanistic tools instead of moral judgment. However, avoiding hard choices is itself morally inappropriate and devalues moral judgment as such (see the previous argument). From the perspective of the DRP, the argument tends to focus on morally difficult situations of the conflict between equal alternatives, such as choosing who to save when two people need medical treatment. However, there are many other types of situations in which social randomization is possible, with different sets of evaluative criteria. Many ways of using randomization described above do not involve morally difficult choices so the moral justification for rejecting lotteries cannot be the universal and decisive argument. Also, Henning's argumentation tends to consider a situation of hard choice in isolation, without considering the whole set of reasons for using lotteries, as well as their possible consequences. He admits that lotteries can often be rational and have pragmatic value, but he doesn't include this in the moral justification. However, the pragmatic or functional benefits of lotteries also have a moral dimension: if a lottery reduces transaction costs that can be redirected to solving important social problems, then the very choice of this procedure is morally acceptable, at least from a utilitarian point of view. Finally, as argued above, the lack of moral justification for a particular choice in a problem addressed by a lottery does not mean that the choice of the lottery mechanism itself, as well as the specification of its procedure and the evaluation of its results, is not guided by reason or moral judgment.

3. Lotteries demotivate good behavior and reduce efficiency. The reverse side of the claim that randomization can demotivate bad behavior, such as corruption, is that it can also demotivate good behavior, leading to important failures of performance and efficiency in social functioning. This is an important argument against lotteries, especially in competitive and meritocratic social contexts such as the professional labor market. For example, competent candidates for a job may be discouraged from applying and investing in their professional development if they know that positions are randomly allocated and that random people have an equal chance of winning the position. Using lotteries in such a situation can be both unfair and inefficient (Goldman, 1977). Moreover, it can lead to deprofessionalization of key social institutions, increase in incompetence, decrease in economic development and other negative effects.

The DRP addresses this serious problem in several ways. First, it claims that randomization can be only one part of a more complex solution. For example, the whole solution may allow a pre-selection procedure to filter out applicants who do not meet the

minimum criteria for a position, minimizing the need to compete with "random people." Second, if lotteries are widespread and most positions (in business, academia, and politics) are randomly allocated, then losing a position in one case shouldn't be critical for an individual because there are other similar positions to apply for. Third, equal access to a position doesn't guarantee that the person will get that position under any circumstances. Each position is associated with duties and responsibilities, and "random people," if they are rational, should understand that their poor performance will result in losing the position or facing other negative consequences. This can lead to a decrease in competition for scarce positions. Finally, the Principle doesn't insist that lotteries should be used under any circumstances: if there are compelling arguments against using them for a particular type of position, then they shouldn't be used.

It is not clear whether random assignment of functional roles in a given social system or for a given type of role (e.g., political decision-makers or top positions in organizations and institutions) will inevitably lead to diminished performance or dysfunctional consequences compared to existing mechanisms of role assignment. At present, many important positions are filled on the basis of suboptimal meritocratic criteria or are the result of a "natural lottery," e.g., business owners who inherited assets, top managers or professionals who obtained a position through patronage or corruption, political leaders who gained power through violence or deception. What matters here is not that such allocation mechanisms exist and are widespread, but that the systems of organized action based on them (organizations, institutions) can still function and be sufficiently effective to maintain the social system. One shouldn't underestimate the power of roles and institutions to withstand individual misbehavior or incompetence. From the perspective of the DRP, this means that even if social randomization does indeed demotivate useful behavior, it can be sufficiently functional for role allocation to maintain the social system, and at the same time it provides other benefits to individuals and societies — including the possible professional development of those who are excluded from overly competitive labor markets due to reduced barriers to entry.

4. Lotteries motivate bad behavior. The opposite example of the motivational effects of randomization is that it can provide opportunities for bad people to do bad things. This is one of the main arguments against lottery voting and other forms of lottery in the political realm: that randomization increases the likelihood of extreme minorities gaining power (see discussion in Delgado, Pestaña, 2020; Saunders, 2010). This argumentation is both empirically and theoretically weak. First, existing political institutions provide enormous opportunities for highly motivated radical minorities and sociopaths to gain power, with consequences, that can be fatal to the very existence of human civilization. Second, randomized access to political power doesn't mean that all the other institutions and mechanisms of democratic control should be abandoned. If they are effective, they will minimize the possible negative effects of the radical views of the decision-maker.

Beyond theoretical arguments against randomization, there are practical reasons why such solutions are unlikely to be implemented due to institutional barriers and human resistance.

5. Institutional barriers. Introducing social randomization into the core and institutionalized elements of social organization, such as the election of public officials, will require large-scale social, political, and legal transformations, which might be too costly in terms of finances, organization, and competencies to be seriously considered. It is worth noting that societies with the most developed and complex institutional organization will face the greatest challenges of adopting randomization-based strategies precisely because of this complexity. Although such practical issues are important barriers to the implementation of social randomization, they are probably not as solid as they seem.

First of all, barriers to the implementation of a social innovation do not tell us anything about its success and survival if it implemented. As is often the case in biological and social evolution, it might be sufficient to overcome the barrier just once, and the successful practice will spread. Introducing numerous variations of a randomization-based solution to social problems will increase the chances of finding the one that works. In this respect, the rare cases of social randomization known from the practice and history, are not sufficient — and even these rare cases didn't show that lotteries are unequivocally dysfunctional.

To extend this evolutionary metaphor further, one can focus on environmental changes that may occur globally or locally and lead to changes in the adaptability of lotteries to new conditions. Societal transformations resulting from internal or external crises (wars, regime changes, technological progress, ecological degradation, economic decline) often create opportunities for the emergence of new forms of social organization. Institutional barriers that seem so solid in a stable society, can rapidly weaken or even disappear during such transformations. At present, the chances of such transformations on a global level are not negligible, due to military conflicts, environmental threats, or the population growth. In the case of rapid transformation leading to institutional collapse and social disintegration, simpler solutions to social problems have an advantage, and social randomization is one of them. The DRP, which familiarizes actors with the possible uses of randomization, allows for its adoption during the crisis, providing an alternative to other simple solutions such as those based on violence or direct democracy. Similarly, there are other sources of environmental change that may weaken institutional barriers to social randomization. For example, the exploration of new habitats in space or virtual worlds may provide both opportunities and demands for forms of social organization that are unfamiliar on Earth and are not bound by existing institutional and normative systems.

6. Social resistance. Another practical issue is that people may resist randomization because they believe it violates important normative standards for any meaningful action, e.g., eliminates reason, moral judgment, or personal responsibility (Keren, Teigen, 2010; Oberholzer-Gee, Bohnet, Frey, 1997; Wolfle, 1970). They may also resist it because it is too strange. Moreover, it is easy to predict that individuals and groups whose interests are affected by social randomization, will try to prevent its adoption, to hack or bypass the new mechanism to maintain the status quo.

However, randomization is not unique in generating potential sources of resistance. Most of today's institutions were innovations in the past, faced such resistance, and suc-

ceeded in overcoming it, sometimes drastically altering power relations. The diversity of modern societies and contexts facilitates the possibility of experimenting with social randomization if it is recognized as an option, and the variety of its possible uses supported by the DRP facilitates such recognition. The focus on the instrumental value of randomization-based solutions may reduce resistance by increasing the benefits to actors. Finally, by broadening the scope of random choice applications in social affairs, the DRP seeks to familiarize actors with this approach. Starting with social experiments and the selection of successful practices, it is possible to provide the information necessary to estimate their net balance of outcomes and make them more common, thus reducing the basis for resistance.

In fact little is currently known whether people would resist lottery-based mechanisms to the point of unconditional rejection. In a series of experiments G. Keren and K. H. Teigen (2010) used hypothetical situations to investigate how people perceive the use of lotteries in making serious and morally difficult decisions, such as choosing whom to save. They found that even if people recognize the fairness of a randomizer, they are reluctant to use it in actual decision-making. However, the study used only one type of serious decision, and cannot be generalized to the full range of situations in which randomization is possible. Also, the conclusions are statistical, which means that many people still see randomization as appropriate, not just fair. Finally, the authors identify some conditions that increase the acceptability of the use of randomizers, in particular the lack of information for reasoned decisions, and the way how the randomization procedure is described. Again, by demonstrating the variety of situations and ways in which randomizers can be used, as well as the reasons for doing so, the DRP increases the chances of identifying social problems where randomization will be perceived as appropriate.

An alternative source for understanding the roots and extent of human resistance to randomization is human-computer interaction studies. The core feature of social randomization is that it is actually not social, i.e., it is a non-agentic mechanism of decision-making. This means that it eliminates issues of social comparison, and thus may reduce the resistance, caused by the possibility of social losses, exclusion, and pain. Whether humans respond similarly to humans and computers in socially sensitive situations (e.g., winning or losing, social exclusion, and so on) remains a controversial issue (Kätsyri et al., 2013; Jauch, Rudert, Greifender, 2022), but there are reasons to believe that such similarity is supported by anthropomorphism, which is especially probable for AI. Indeed, people easily ascribe agentic properties to technical objects, social entities, or institutions. On the contrary, it is difficult to perceive randomizers as social agents, and thus negative effects of social exclusion or loss, which are particularly important in highly competitive contexts, may be less harmful, leading to less resistance. Further research is needed to compare the acceptability of randomizers in situations of social threat.

The fact that the DRP helps to address several common arguments against lotteries does not mean that it is easy to implement in real life or that it doesn't have important drawbacks or negative consequences. This, however, is true of any other approach to social problems, especially novel ones, and does not refute the conclusion that social ran-

domization is applicable to many solutions to social problems. The majority of existing social designs have been developed for a long period of time and have required painstaking fine-tuning, and there is no a priori reason to believe that this cannot be done with lotteries.

Conclusion

The idea that chance and random choice can play an important role in social life and be a part of the rational organization of society is not new and in some form has been advocated by scholars for years. Yet, it is difficult to imagine that the use of lotteries beyond some trivial cases can be a fundamental principle of social or political institutions in real life. Some forms of randomization-based strategies and approaches to social problems require significant changes in the institutions and social organization of society. For example, addressing social problems such as segregation, informational fragmentation, or increasing inequality through forced random allocation imposes critical limits on personal freedoms and requires changes in constitutions and legal systems. However, beyond the theoretical value of hypothesizing what such a lottery-based society might look like, there are numerous more modest ways to use lottery to solve many social problems. It is relatively easy to develop and implement approaches using social randomization at the group, organizational or local level.

Today, there is a vicious circle in the use of social lotteries. The practice of using them beyond trivial cases is rare and there is minimal empirical evidence to support the analysis of their costs and benefits. Without such a basis, actors do not even recognize randomization as an option to consider. The present analysis and the heuristics of the Default Randomization Principle facilitate the perception of social randomization as a general-purpose tool and the search for creative ways to use it. Regardless of the possible assessment of the net benefits and costs balance associated with randomization, considering it as a rational option increases the number of options available for dealing with social issues, and the flexibility of social actors in choosing the course of action.

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Социальная рандомизация: могут ли лотереи быть общим подходом к решению общественно-значимых проблем?

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В статье анализируется расширенная версия идеи, что целенаправленная рандомизация, частным случаем которой являются лотереи, может быть полезным способом решения многих общественных и политических проблем, выходящих за рамки тривиальных ситуаций. Статья вносит вклад в дискуссию о социальных и политических лотереях тремя основными способами. Во-первых, в ней обосновывается, что социальная рандомизация применима к различным типам ситуаций и задач, не сводящимся к тривиальному случаю разрешения ничьей и в целом — к выбору между дискретными альтернативами, как это обычно представлено в литературе. Это позволяет расширить потенциальную сферу применения рандомизации, в частности, за счет ее использования для решения

задач оценки или разработки политических мер и управленческих практик. Во-вторых, в статье продемонстрировано многообразие возможных причин и обоснований использования рандомизации при решении общественно-значимых проблем. Тем самым дополнительно расширяется спектр возможных приложений принципа лотереи. В то время как в философских дискуссиях основное внимание уделяется таким нормативным обоснованиям рандомизации как честность, равенство и эпистемическая рациональность, существует множество других причин, в том числе инструментальных, которые могут играть важную роль в ее практических применениях. В-третьих, отталкиваясь от описания вариативности форм социальной рандомизации, в статье предложен эвристический принцип «рандомизации по умолчанию», согласно которому использование случайности целесообразно рассматривать как общий подход в решении общественно-значимых проблем, используемый рациональными акторами в качестве общепринятой опции. Смысл принципа заключается в том, что принятие социальной рандомизации как общего подхода способствует осознанию ее потенциала в решении общественных проблем, а также дает ответ на ряд типичных аргументов против применения лотерей в жизни общества.

Ключевые слова: социальная рандомизация, случайность, социальные лотереи, политические лотереи, жеребьевка, общественные проблемы