



Center for Research in Economics, Management and the Arts

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October 11, 2020

Beiträge zur aktuellen Wirtschaftspolitik No. 2020-25

CREMA Südstrasse 11 CH - 8008 Zürich www.crema-research.ch

For CREMA papers
October 11, 2020/ost

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Random decisions can be rational. In two laboratory experiments we show that focal random selection helps to combat hubris and abuse of power, and that the proportion of capable women in leadership positions almost doubles. We discuss further important applications in the academic field as well as in politics. Random procedures could also counteract the tyranny of meritocracy, which has played a decisive role in the American election campaign.

Today, random decisions are generally considered irrational or arbitrary. This was not always the case. In the 18th century, professors at the University of Basel were chosen at random from a carefully selected list of three candidates (Stolz, 1986; Rost and Doehne, 2020). In ancient Greece, political positions were determined by lot among the male citizens of Athens. In the early modern period, Italian city-states such as Venice or Florence also made use of the lottery system for the distribution of political power, as did numerous Swiss municipalities (Buchstein 2020). The goal was to break up old boys' networks, to eliminate corruption or to pacify the quarrelling ruling families. Today, aleatoric procedures (from Latin *alea*, meaning cube) have largely fallen into oblivion (but see Frey 1969). However, they have recently been discussed again (e.g. Frey & Steiner 2014; Osterloh & Frey 2019) and have been investigated by us experimentally.

Random procedures in management

Choosing executives by lot may seem crazy at first glance. But in our experiments we were able to show that there are good reasons for the use of aleatoric procedures in management. However, these random procedures always follow a previous, conventional pre-selection, i.e. so-called „focal aleatoric procedures“.

In a first study (Berger, Osterloh, Rost & Ehrmann, 2020), we conducted a laboratory experiment to investigate whether focal random selection from a shortlist is suitable to mitigate hubris and abuse of power.

Power and success often lead to hubris. The examples of misconduct of star CEOs are numerous: falsification of balance sheets at Enron, corruption in FIFA, or scandals in the automotive industry. Bosses like to ascribe their success to their outstanding skills, They overlook the fact that luck and the Matthew effect ("success breeds success") usually play big role (Liu 2016). As a result, they overestimate themselves, take excessive risks, enrich themselves and believe that they can break rules with impunity. In our laboratory experiment at the ETH Zurich involving 864 participants we compared three groups: In the first group, the winner was determined by a performance test, in the second group, pure random selection was used. In the third group, the three best candidates were determined in a performance test, and then the winner was drawn by lot. In the third group, we thus followed the example of the choice of professors at the University of Basel in the 18th century. The results suggest that among those participants who overestimated their own abilities, significantly more abused their power in the first group. They kept more money for themselves in a so-called dictator game (in which "the dictator" determines how to split an endowment) than those in the third group. Focal aleatoric recruitment can therefore reduce hubris and the abuse of power.

In a second laboratory experiment we show that focal aleatoric recruitment can make an important contribution to getting more women into management positions (Berger, Osterloh & Rost 2020). The "leaky pipeline" (i.e. the decreasing proportion of women at higher career levels) for well-educated women - who in many countries today have a higher formal education than men - is not only caused by the lack of compatibility between family and career. The lack of competitiveness of many women also plays a major role. Numerous laboratory and field experiments show that women enter competitions or tournaments in which only one person wins on average about half as often as men do (e.g. Niederle & Vesterlund 2007). This is particularly true in the

competition of high-performing women against men in male-dominated areas - i.e. in typical situations in the top floors of companies, public authorities or hospitals. But those who do not participate in the competition cannot win. In our experiment with 420 participants, we show that a focal aleatoric procedure makes the difference in competitive behavior between women and men disappear. The income gap between men and women was closed in our experiment. This is the most important result: The number of high-performing women who participate in such a modified competition and reach leadership positions has almost doubled. We explain this behavior by the fact that high-performing women who win against men in a focal random selection suffer less from the loss of sympathy than those who win in a pure performance selection against men. This is because it is easier for the losers to save their face (Osterloh 2020). Focal random selection is therefore an effective alternative to the controversial quotas.

Random procedure in the academic field

Focal aleatory selection can also be used for the publication of papers in scientific journals and for the allocation of research funds (Osterloh & Frey 2020). According to our empirical findings, the current practice of assessing individual publications on the basis of the impact factor of a journal leads to a mistaken judgment in two thirds of all cases. Focal random selection questions this assessment practice. Specifically, we propose a triage: Immediate publication of the paper which all reviews find to be excellent; immediate rejection of all contributions with exclusively negative reviews; and a drawing of lots for all other contributions. The same procedure can be applied to the allocation of research resources. An empirical validation of this proposal is still pending, but at least some research institutions - such as the German VW Foundation, the Swiss National Science Foundation, or the Fund for the Promotion of Scientific Research in Austria - have initiated pilot studies.

Random procedures in politics

There are also approaches in politics that take up aleatory decision-making procedures. In Germany, the President of the Bundestag, Wolfgang Schäuble, has expressly welcomed the Citizens' Council suggested by the Council of Elders of the Bundestag as an enrichment of democracy. In this Citizens' Council, 160 citizens selected by lot make suggestions to the parliament after intensive consultations and with the help of experts. The goal is to strengthen the bond between voters and elected officials.

In Switzerland the so-called Justice Initiative is to be decided by a referendum. The question is whether federal judges will be chosen by lot out of a shortlist, after an independent commission of experts has decided beforehand who will be nominated for the shortlist. The initiators hope that this will lead to a stricter separation of power and a more independent judiciary.

Randomly selected Citizens' Forums in Ireland had already earlier prepared important constitutional amendments on "marriage for all" and the legalization of abortion. The goal was to increase the inclusion of broad social strata in the political process (Heinzmann 2020).

After the U.S. election we see further areas of application in politics: As Michael Sandel (2020) in his new book "The Tyranny of Merit" argues, Trump's popularity is due to the fact that he understood better than the Democrats how to deal with the numerous losers of the meritocracy. The "deplorables" – as Hillary Clinton called voters of Donald Trump - feel humiliated by the arrogance and cold contempt of the elites. In 2016, two-thirds of whites without college degrees voted for Trump, while 70 percent of academics voted for Hillary Clinton. Focal random selection of students at the elite universities (Sandel, 2020) as well as of politicians (Frey, 2020) could lead to a major improvement: Randomly selected students and politicians would be less arrogant. Losers would not lose their face in a random selection. Like the women in our experiment, the winners in the focal random selection could count on not losing the sympathies of the inferiors.

General advantages of random procedures

Aleatoric procedures can serve several purposes in different situations. The following are highlighted in the literature (Osterloh & Frey 2019):

- They prevent corruption, nepotism and Matthew effects ("Success breeds success").
- They enable precise representativeness of the underlying totality, i.e. make quotas superfluous.
- Outsiders and unusual ideas are given a chance.
- There are no principal-agent conflicts.
- Aleatoric procedures enable stability and continuity of hostile groups, because each group has an equal chance to come to power.
- Properties and views that are overlooked or considered unimportant at the time of selection are represented according to their share in the population. In contrast, with quotas it must be known from the outset which dimensions (e.g. gender, age, race, nationality) are considered relevant.
- In the case of the winners, random procedures prevent arrogance and hubris. Losers do not perceive themselves as "deplorables". This facilitates cooperation between winners and losers.

To sum up: Random processes are rational in numerous situations, whereas - as Kahnemann (2011) demonstrates using many examples - so-called rational processes often are characterized by numerous irrationalities.

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