

Unless power is checked, you cannot have liberty

MOYUKH MAHTAB

"... it is requisite the government be so constituted as one man need not be afraid of another."
 —Montesquieu, *The Spirit of the Laws*

PUBLISHED in 1748, Montesquieu's *The Spirit of the Laws* remains, after over 250 years, one of the seminal works of political theory. Among this Age of Enlightenment philosopher's preoccupations was the relationship between power and freedom, and how the distribution of power in a government can be the crucial factor between a state of liberty and one of despotism. In exploring this theme—how best liberty can be preserved in a system of government—he developed on the idea of the separation of powers, which is now taught in school-level social science, and which has since become one of the most accepted ideas of how a state should be structured. And though much of modern state structures and constitutions can be traced back to this ideal, all over the world overt and covert attempts can be witnessed today for the powers that be to consolidate these distinct powers. And for that reason, whether as a basis of argument in showing the importance of this separation or for debate into how exactly this balance can be achieved, Montesquieu's political thinking continues to be an important part of global political discourse.

Put briefly, every government, whatever be its form, has three powers: the executive, the legislative and the judiciary. Independent of each other, the three can function to keep each other in check, curtail abuse, prevent consolidation of power, and—of supreme importance to Montesquieu as evident from the quote above—ensure the liberty of the "subject." He goes on to explain his logic why this concentration of power is undesirable. In summary, if the same body were to be in charge of framing the law and of executing it, there would be apprehensions of "tyrannical laws" made to be executed in a "tyrannical manner." Again, if the legislative and the judiciary were one, "the life and liberty of the subject would be exposed to arbitrary control," since the judge would be the formulator of the law. And, probably most importantly, were the executive and the judiciary consolidated, then threat arises that one's judge "might behave with violence and oppression."

This principle is enshrined in most constitutions of today. Writing of the failure of the Congress to hold the US Executive to check in 2017, Mickey Edwards, a former term member of Congress, wrote: "Presidents have managed to accumulate such a prominent place at the top of what is now increasingly a pyramid rather than a horizontal structure of three connected blocks because for more than a generation, Congress has

Montesquieu's warning that this concentration of power can lead to despotism (populist or otherwise) even in democratic structures remains undoubtedly relevant.

willingly abandoned both its constitutional responsibilities and its ability to effectively serve as a check on the executive even when it wishes to do so." The separation of powers does not, it seems, sit well with strongmen leaders. President Trump was all fire and fury when the courts declared his travel ban illegal (although, in 2018, a later version of the ban was upheld by the Supreme Court).

In the first Constitution of Bangladesh which came into effect on December 16, 1972, the model of state set out was a parliamentary system, patterned after the Westminster model. In it, the separation of powers was provided for, and the functions of each laid out. But as Nizam Ahmed in a research paper titled "Executive-Judiciary Relations" points out: "However, since the constitution provided for a cabinet government, with the executive owing its origin and remaining collectively responsible to the parliament, no complete separation

was possible." This overlap between the executive and the legislative is present in almost all parliamentary systems—what was the primary concern in the Constitution was of the separation of the executive and judiciary. A system of checks and balances, which was in effect all thrown to the dust in 1975, was ordained by the Constitution, so that the judiciary could remain independent in its duties, and hold to account the actions of the executive and the legislative. And though limitations to the extent of the independence of the judiciary have been pointed out—for example, the lack of power to enforce its directives and the immunity of MPs among others—the framers of the Constitution were clearly striving to strike the right balance of power between the three powers.

Inaccurate as it was on Montesquieu's part to see the structure of England laid out in his ideal way, his logic is well established in the brief chapter—concentration of power leads to despotism and is dangerous for liberty. Thus, in his reasoning, with the separation of the three powers, there can be liberty in a monarchy; without, there can be none in even a republic. His idea of liberty, at least in the political sense, is the exercise of one's will limited by the rights of others, the unlimited freedom to do as one will after consideration of the rights of the



From the series *Great Ideas*, 1952, opaque watercolour on fiberboard, Smithsonian American Art Museum.

collective. Thus, in his treatise, even the liberty of the state is checked by this separation of powers to ensure that no man needs be afraid.

Much has of course changed since Montesquieu wrote *The Spirit of the Laws*. But it is not in the specifics that he remains important to representative democracies today. It is for the principle—that the powers of the state should be checked by each other. His interests in other cultures and states led him to examine the forms of government and distribution of power and see where liberty is best attained. His warning that this concentration of power can lead to despotism (populist or otherwise) even in democratic structures remains undoubtedly relevant. In effect, Montesquieu's ideal of complete separation of powers is probably unattainable. His work clearly shows that by separation, he did not mean unconnected, but rather a structure where the three parts serve the whole, but also strive towards checking the disproportionate increase in each other's powers.

Following Montesquieu's line of thought, it stands that the sometimes so-called fourth power, that is the media, though not part of the state structure, because of its essentially public-service nature, must also remain separate and independent. The US Constitution, which owes much of its spirit to the works of Montesquieu and his peers, through the first amendment of the Bill of Rights, established that principle: no law shall be passed that can potentially prohibit the free exercise of the freedom of speech, or of the press. Relatively younger, we as a nation incorporated these rights and the state structure's mechanism for checks and balances in our Constitution when it was drafted. How strongly we have strived since then to ensure that this ideal is translated to reality is a different question altogether.

Moyukh Mahtab is a member of the editorial team at *The Daily Star*.



Harnessing the solar energy absorbed by the oceans

QUAMRUL HAIDER

THE world's oceans constitute a vast natural reservoir for receiving and storing solar energy. They take in solar energy in proportion to their surface area, nearly three times that of land. As the sun warms the oceans, it creates a significant temperature difference between the surface water and the deeper water to which sunlight doesn't penetrate. Any time there's a temperature difference, there's the potential to run a heat engine, a device that converts thermal energy into mechanical energy.

Most of the electricity we use comes from heat engines of one kind or another. The working principle of such an engine is very simple. It operates between two reservoirs of thermal energy, one hot and one cold. Energy is extracted from the hot reservoir to heat a working fluid which boils to form high-pressure vapour that drives a turbine coupled to an electricity-producing generator. Contact with the cold reservoir re-condenses the working fluid which is pumped back into the evaporator to complete the cycle.

The idea of building an engine to harness energy from the oceans, mainly to generate electricity, by exploiting the thermal gradient between waters on the surface and deeper layers of an ocean is known as OTEC—acronym for Ocean Thermal Energy Conversion. With OTEC, the hot reservoir is an ocean's warmer surface water with temperatures, which can exceed 25 degrees Celsius, and the cold reservoir is the cooler water, around five to six degrees, at a depth of up to one kilometre. The working fluid is usually ammonia, which vaporises and condenses at the available temperatures. This is analogous to choosing water as the working fluid matched to the temperature differential between a fossil-fuel-fired boiler and a condenser cooled by air or water.

The maximum efficiency of a heat engine operating between reservoirs at 25 and 5 degrees Celsius is 6.7 percent. This means efficiency of an actual OTEC engine will be much less, perhaps 2-3 percent. But low efficiency isn't the liability it would be in a fossil-fuelled or nuclear power plant. After all, the fuel for OTEC is unlimited and free, as long as the sun heats the oceans.

The greater is the temperature difference, more efficient an OTEC power plant would be. For example, a surface temperature of 30 degrees would raise the ceiling on efficiency to 8.25 percent. That's why the technology is viable primarily in tropical regions where the year-round temperature differential between the ocean's deep cold and warm surface waters is greater than 20 degrees. The waters of Bay of Bengal along the shores of Bangladesh, a country that enjoys a year round warm, and at times very hot weather, have excellent thermal gradients for producing electricity using OTEC technology.

The world's biggest operational OTEC facility, with an annual power generation capacity of 100 kW, was built by Makai Ocean Engineering in Hawaii. Tokyo Electric Power Company and Toshiba built a 100 kW plant on the island of Nauru, although as much as 70 percent of the electricity generated is used to operate the plant.

The US aerospace company Lockheed Martin is building an OTEC electricity generating plant off the coast of Hainan Island in China. Once operational, the plant will be able to generate up to at least 10 MW of power, enough to sustain the energy requirements of a smaller metropolis. India is building a 200 kW plant, expected to be operational before 2020, in Kavaratti, capital of the Lakshadweep archipelago, to power a desalination plant. Other OTEC systems are either in planning or development stage in Iran, Kuwait, Saudi Arabia, Thailand and several countries along the Indian Ocean, mostly to supply electricity.

Like any alternative form of energy, OTEC has its advantages and disadvantages, but the advantages outweigh the disadvantages. Among the advantages, the one that stands out is its ability to provide a base load supply of energy for an electrical power generation system without interruption, 24/7/365. It also has the potential to produce energy that are several times greater than other ocean energy options, such as waves and tides. More importantly, OTEC is an extremely clean and sustainable technology because it won't have to burn climate-changing fossil fuels to create a temperature difference between the reservoirs. A natural temperature gradient already exists in

the oceans. The gradient is very steady in time, persisting over day and night and from season to season. Furthermore, the desalination technology as a by-product of the OTEC can produce a large amount of fresh water from seawater which will benefit many island nations and desert countries.

However, re-distribution of large volumes of water by OTEC power plants could have negative impacts on the aquatic environment. In particular, the introduction of nutrient-rich deep waters into the nutrient-poor surface waters would stimulate plankton blooms that could adversely affect the local ecological balance. Additional ecological problems include destruction of marine habitats and aquatic nursery areas, redistribution of oceanic constituents, loss of planktons and decrease of fish population.

Since OTEC facilities must be located closer to the shores due to cabling constraints, they could have significant effect on near-shore circulation patterns of ocean water. As a result, open ocean organisms close to the shores will be especially affected because they are known to have very narrow tolerance limits to changes in the properties of their environment.

The biggest drawback of OTEC is its low efficiency. This implies that to produce even modest amounts of electricity, OTEC plants have to be constructed on a relatively large scale, which makes them expensive investments. It's the price we should be prepared to pay to curb global warming. Industry analysts however believe that in the long run, low operation and maintenance cost would offset the high cost of building OTEC facilities.

The current effort, as agreed in the 2015 Paris Accord, to keep our planet lovable is like taking one giant step backward before trying to move one step forward. If technology for OTEC and other eco-friendly renewable sources of energy are fully developed and globally commercialised, it would indeed be one giant step forward in mitigating global warming. They would also equip communities worldwide with the self-empowerment tools that are required to build an independent and sustainable future.

Quamrul Haider is a Professor of Physics at Fordham University, New York.

ON THIS DAY
IN HISTORY

OCTOBER 14, 1994
TWO ISRAELIS AND A PALESTINIAN
SHARE THE NOBEL PEACE PRIZE

Israeli Prime Minister Yitzhak Rabin and Foreign Minister Shimon Peres shared the Nobel Peace Prize, which is annually awarded by the Norwegian Nobel Committee based in Oslo, with the President of the Palestinian National Authority, Yasser Arafat. The Award was given out to the two parties for their efforts and work on the Oslo Accords, a series of agreements between the PLO and Israel.

CROSSWORD BY THOMAS JOSEPH

ACROSS

1 Nest holders
6 Hands over
11 Mindful
12 Left, on a liner
13 Game piece
14 Bender
15 Diner food
17 Terminate
18 Wine holder
20 State frankly
22 Rhythmic sound
23 Stunned
26 Districts
28 Met performer
29 Takes one's sweet time
31 Neither follower
32 Portent

33 Blocks
34 Skimpy skirt
36 Gloomy
38 Tennis star Agassi
40 PC operating system
43 Girder material
44 Conjure up
45 Trunk
46 Put in stitches

DOWN

1 Back muscle
2 -- Jima
3 Maroon 5 song
4 Fracture
5 Posted
6 Fare carrier
7 Series show
8 Maroon 5 song
9 Therefore

10 Dance move
16 -- Salvador
18 Niger neighbor
19 Mystique
21 Brewery sights
23 Spot in the sea
24 Tear along
25 Screws up
27 Looks up to
30 Break off
33 Impetus
34 Schooner part
35 A fan of
37 Brewery creations
39 "Evil Woman" group
41 Luau strings
42 Struck out

Write for us. Send us your opinion pieces to dsopinion@gmail.com.

1 2 3 4 5 6 7 8 9 10
11
13
15
16
17
18 19
20 21
22
23
24 25
26
27
28
29
30
31
32
33
34 35
36 37
38
39
40
41 42
43
44
45
46
9-21

YESTERDAY'S ANSWER

P A G E S L U I C E
A M O S C A N C U N
L E A P A G R E E D
E N L I S T E E
L E E R A C E R
A B I D E S L O M O
B E N S L A I D
B E E P S M E L T S
A S S E T A R M
S E N O R I T A
B A T T L E A N E W
A T O L L S T E A L
R E P E A T A S K S

BEETLE BAILEY
BY MORT WALKER

BABY BLUES
BY KIRKMAN & SCOTT