

# 13 BODY & MIND

## SHORT COURSE

### [0-20 YEARS]

#### Living near oil, gas wells tied to heart defects in babies

**RESEARCHERS WRITING** in *Environment International* reported on 3,324 infants born in Colorado from 2005 to 2011, comparing 536 babies with heart defects to 2,860 controls matched for sex, maternal smoking, race and ethnicity. They correlated maternal addresses with locations of oil and gas wells and estimated intensity of maternal exposure (drilling, well completion, production) from three months prior to conception through the second month of pregnancy. Compared to the one third with the lowest intensity of exposure, the one third with the highest were 70 per cent more likely to have a baby with a heart defect. The association was more prominent in rural than urban areas, perhaps because other sources of pollution in cities may mask potential harms from drilling sites. The study is observational. Still, there are plausible reasons for the association. "The greatest suspect is hazardous air pollutants emitted during production of oil and gas," said lead author, Lisa M McKenzie, assistant research professor at the Colorado School of Public Health. **NYT**

### [20-50 YEARS]

#### An apple carries about 100 million bacteria: Study

**BESIDES CONTAINING** fibre and vitamins, an apple carries about 100 million bacteria, and whether these microbes are good or bad for health may depend on how the fruit was grown, according to a study. The study, published in *Frontiers in Microbiology*, shows that organic apples harbour a more diverse and balanced bacterial community — which could make them healthier and tastier than conventional apples. "The bacteria, fungi and viruses in our food transiently colonise our gut," said Professor Gabriele Berg, of Graz University of Technology, Austria. "Cooking kills most of these, so raw fruit and vegetables are particularly important sources of gut microbes," Berg said. To help us choose our colonic colonists wisely, the team analysed the microbiome of one of the world's favourite fruits: the apple. "Freshly harvested, organically managed apples harbour a significantly more diverse, more even and distinct bacterial community, compared to conventional ones," said Berg. **PTI**

### [50+ YEARS]

#### Vitamin A intake linked to lower skin cancer risk: Study

**INTAKE OF vitamin A** may be associated with a lower risk of a common type of skin cancer, a study claims. The study of about 125,000 Americans found that people with the highest intake of vitamin A lowered their risk of squamous cell skin cancer by around 15 per cent. Most of the vitamin A they consumed came from foods, according to the study published in *JAMA Dermatology*. "These findings just add another reason to have a healthy diet with fruits and vegetables. Vitamin A from plant sources is safe," said Eunyoung Cho, associate professor at Brown University in the US. Sources of vitamin A include sweet potato, cantaloupe, carrots, black-eyed peas, broccoli, spinach, fish and meat. **PTI**



Gracia Lam/NTT

## For a torn ligament, considering repair rather than replacement

Repair may be especially helpful for children, who are more likely than older patients to reinjure a reconstructed anterior cruciate ligament, a pioneer of the surgery says

JANE EBRODY

MY SON Erik, then 23, was playing basketball when an opponent stepped on his foot and the anterior cruciate ligament in his right knee ruptured with an audible pop. This critically important ligament, best known as the ACL, is a ropelike structure that connects the femur (thigh bone) to the tibia (shin bone), stabilising the knee joint. A torn ACL is an all-too-common injury that typically results in complex surgery and prolonged rehabilitation. It can spell the demise of a promising athletic career and limit an amateur's ability or willingness to participate in sports like tennis, basketball, soccer, football, skiing and gymnastics that involve quick twists and turns or pounding stress on the knee.

But Erik was lucky. His ACL tore about a quarter of the way down the ligament, and the orthopaedic surgeon he consulted immediately after the injury was a maverick decades ahead of his time. Ignoring longstanding professional practice that still calls for removing and reconstructing the torn ligament with a tendon from elsewhere in the leg, Erik's surgeon simply stapled the longer piece of the torn ACL to his femur.

Twenty-seven years and countless hours of tennis and basketball later, Erik's repaired knee is still intact, stable and pain-free. He recently learned that, despite continuing orthopaedic orthodoxy that insists on reconstruction, many others with a torn ACL — perhaps as many as 40 per cent with this injury — could benefit from a modern version of the simplified procedure and more rapid recovery Erik experienced.

One of the pioneers in modernising simpler ACL surgery is Dr Gregory S DiFelice, who has done ACL repairs, instead of reconstructions, on about 250 patients during the last decade at the Hospital for Special Surgery in New York. DiFelice maintains

that repair rather than reconstruction is especially helpful for children 18 and younger who are more likely than older patients to reinjure a reconstructed ACL. Overall, he said in an interview, the risk of reinjury with the repair method has been no greater than that following reconstruction.

Reconstruction involves removing the torn ligament and replacing it with a graft — a tendon surgically removed from the patient's hamstring, quadriceps or kneecap, or sometimes taken from a cadaver — and attaching it with screws or buttons through tunnels drilled into the femur and tibia. As it heals, the grafted tendon develops scar tissue that results in a firm, reliable knee joint with an overall failure rate of about 5 or 10 per cent.

But DiFelice said that when the damaged ACL is removed, the patient loses the nerve endings within it that send signals to the brain about what the knee is doing. Also, range of motion may be compromised, and during the lengthy recovery that can take six to eight months or longer for the graft to be strong, thigh muscles atrophy and must be rebuilt before the patient can safely return to demanding activity.

Thus, DiFelice said he wants to encourage other practitioners and their patients to pursue the lesser surgery and shorter rehab whenever circumstances permit, especially when the full length of the ACL tears directly off the bone. However, he explained that even when the torn ligament is not quite long enough to reach the bone, he's developed an augmentation procedure to add a

small strut to make it reach. Using this method, he said, he now has to resort to the standard reconstruction surgery for less than a third of the patients he sees.

There are at least two important caveats to this story:

1) Unlike the introduction of new prescription drugs, new surgical procedures are not subject to government approval and typically are not tested in controlled clinical trials, at least not until they have been used for years. So patients must rely on what surgeons tell them about the effectiveness of their procedures, supplemented perhaps by reports from patients.

2) Training and practice are required before a surgeon attempts what DiFelice does, and thus far there are not many already adept at the technique. Changes in medical practice can sometimes proceed at a glacial pace, and it may be up to patients to pressure doctors to depart from accepted procedures. Also, it may require pressure on medical insurers to cover the costs of a new operation.

Another surgeon in the New York area now doing ACL repairs in lieu of reconstruction is Dr Howard J Luks, at Westchester Medical Center. He reports that the loss of nerve connections to the brain following ACL reconstruction may explain why such knees sometimes feel unstable.

However, Luks emphasised that "current repair techniques only allow us to consider tears which occur high in the ACL near the femur insertion" and that "the tear can-

not be too old. If the tear is old, then the ligament will degenerate, and it may not be able to be brought back to the part of the bone it needs to be repaired to".

Keep in mind, too, that there are risks associated with any surgery, including infection, stiffness, pain, blood clots and with the ACL, ligament failure. For children who are still growing, there is a risk of damaging growth plates during the surgery.

Those with an ACL injury should also know that surgery is not their only option. My brother, in his 50s when he tore his ACL while skiing, opted not to have surgery. Instead he did extensive physical therapy, and by wearing a leg brace for added support, was able to ski and play tennis despite his damaged ligament.

The American Academy of Orthopaedic Surgeons suggests that non-surgical management may be appropriate for those with partial tears and no symptoms of instability; those with complete tears without instability during low-demand sports who are willing to give up high-demand sports; people who do only light manual work or are sedentary; and children whose growth plates are still open.

The academy says that a person's activity level, not older age, should be a considered when deciding on surgery. "Active adult patients involved in sports or jobs that require pivoting, turning or hard-cutting as well as heavy manual work are encouraged to consider surgical treatment", including older patients once excluded from surgical consideration, the academy wrote.

Whether repair or reconstruction is done, postoperative physical therapy starting right after the operation is vital to a successful outcome. The academy cautions that patients should return to sports only after pain and swelling are gone and full range of motion, muscle strength, endurance and leg function are restored. **NYT**



Whether repair or reconstruction is done, postoperative physical therapy starting right after the operation is vital to a successful outcome

## DIET DIARY

### It's time to become sugar wise

Not all sugars are equal, so knowing the properties of each is key to making prudent choices



BY ISHI KHOSLA

UNTIL ABOUT two decades ago, becoming 'sugar wise' was only for diabetics. But now it has become a red flag for everyone, including our children. Going zero sugar is a popular trend as sugar as become the new tobacco. But are all sugars the same and do we treat them equal?

The answer is no and it would be helpful to know one from the other to make prudent choices. The sweet tooth needs to be tamed for sure, but a lifelong ban is unlikely to sustain and may be unwarranted.

**WHITE SUGAR:** White sugar, which is called sucrose in chemical nomenclature, is the most commonly produced sugar made from heating sugarcane juice using a Double Sulphitation process. It is rather white in colour and the most common form of sugar consumed.

**REFINED SUGAR:** It is the purest and most refined form of sugar. It is sulphurless as it does not go through sulphurisation during processing. The ultra white and shiny sugar is devoid of any minerals and uses phosphoric acid to get the desired properties. Its use has increased in the last few years.

**RAW SUGAR:** It is a less pure form of sugar, like brown sugar, and produced in India as a precursor to refined sugar and is mostly sulphurless. It is not easily available to consumers as it is used by industry or exported.

**MOLASSES:** Cane molasses is an important by-product in the manufacture of cane sugar. It is dark-coloured, viscous and syrupy. In India, molasses is obtained during the production of raw sugar which does not involve sulphurisation. This means our molasses contains no sulphur. It also is rich in magnesium, zinc, potassium, iron, calcium and potassium.

**GUR:** Gur is prepared by heating clarified juice of sugarcane. It is generally prepared in the form of solid lumps that are golden yellow to light brown in colour. Gur contains minerals and antioxidants like manganese, magnesium, chromium, iron and zinc. It is also sulphurless. Shakkari is a powdered version of gur and may be slightly more refined to lighten colour.

**MISRI AND BURA SUGAR:** Misri and Bura are made from white sugar which has sulphur. Sucrose content of both Misri and Bura sugar is more or less similar to white sugar. Misri is in large crystalline form while Bura is powdery.

Author is a clinical nutritionist and founder of [www.theweightmonitor.com](http://www.theweightmonitor.com) and Whole Foods India

## Morning exercise may offer the most weight loss benefits

GRETCHEN REYNOLDS

PEOPLE WHO exercise in the morning seem to lose more weight than people completing the same workouts later in the day, according to a new study of workouts and waistlines. The findings help shed light on the vexing issue of why some people shed considerable weight with exercise and others almost none, and the study adds to the growing body of science suggesting that the timing of various activities, including exercise, could affect how those activities affect us.

The relationship between exercise and body weight is somewhat befuddling. Multiple past studies show that a majority of people who take up exercise to lose weight drop fewer pounds than would be expected, given how many calories they are burning during their workouts. Some gain weight. But a few respond quite well, shedding

pound after pound with the same exercise regimen that prompts others to add inches.

This variability interests and puzzles Erik Willis, a data analyst with Center for Health Promotion and Disease Prevention at the University of North Carolina. For almost a decade, he and colleagues at the University of Kansas, University of Colorado Denver and other institutions have overseen Midwest Exercise Trial 2, an extensive examination of how regular, supervised exercise influences body weight.

In that study, about 100 overweight, previously inactive young men and women worked out five times a week at a physiology lab, jogging or otherwise sweating until they had burned up to 600 calories per session. After 10 months of this regimen, almost everyone had dropped pounds. But the extent of their losses fluctuated wildly, even though everyone was doing the same, supervised workouts. When, for a 2015 study, the researchers tried to tease out what had distinguished the

biggest losers from those who had lost less, they turned up surprisingly few differences. In line with other recent studies, they found that some participants, especially men, had begun eating more than before the study, but only by about 100 calories or so a day.

Flummoxed, Willis and one of his collaborators, Seth Creasy, a professor of exercise physiology at the University of Colorado Denver's Anschutz campus, started brainstorming other possible, perhaps unexpected contributors to the enormous variability to weight loss.

They hit upon activity timing. The science of chronobiology, which studies the ways in which when we do something alters how our bodies respond, is of great interest now. Many recent studies have looked at how meal timing, for instance, affects weight control, including whether exercising before or after breakfast matters. But far less has been known about whether the timing of exercise, by itself, influences whether people lose



Multiple past studies show that majority of people who take up exercise to lose weight drop fewer pounds than would be expected

weight with workouts.

So, for the new study, published in July in *The International Journal of Obesity*, Willis and his colleagues sifted through their data again, this time looking at when people in the Midwest trial had shown up at the university lab.

In that study, participants could visit the gym whenever they wished between 7 am and 7 pm, signing in each time, so researchers had plenty of precise information about their schedules. The scientists also had tracked everyone's calorie intakes and daily movement habits throughout the 10 months, using activity trackers and liquid energy tracers. They knew, too, whether and by how much people's weights had changed.

Now, they checked weight change against exercise schedules and quickly noticed a consistent pattern. Those people who usually worked out before noon had lost more weight, on average, than the men and women who typically exercised after 3 pm (For unknown reasons, very few people went to the gym between noon and 3.)

The researchers uncovered a few other, possibly relevant differences between the morning and late-day exercisers. The early-exercise group tended to be slightly more active throughout the day, taking more steps in total than those who worked out later. They also ate

a bit less, although the difference amounted to barely 100 calories per day on average. Over all, such differences were barely discernible.

Yet, they may cumulatively have contributed to the striking differences in how many pounds people lost, Willis says.

Of course, this study was not large or designed from the start to delve into the chronobiology of exercise and weight. The researchers had not randomly assigned people to work out at particular times, so the links between exercise timing and weight loss they saw now in their re-analysis could be odd accidents related to individual participants' preferences and schedules with little relevance for the rest of us.

Still, the statistical associations were strong, Willis says. "Based on this data, I would say that the timing of exercise might — just might — play a role" in whether and to what extent people drop pounds with exercise, he says.

But he also points out that most of those who worked out later in the day did lose weight, even if not as much as the larkish exercisers, and almost certainly became healthier.

"I would not want anyone to think that it's not worth exercising if you can't do it first thing in the morning," he says. "Any exercise, at any time of day, is going to be better than none."

NYT





## The Indian EXPRESS

FOUNDED BY

RAMNATH GOENKA

BECAUSE THE TRUTH INVOLVES US ALL

# The name is dollar bond

Government's proposal is the right way forward but it's an idea whose time has yet to come



DUVVURI SUBBARAO

## IT'S THE SLOWDOWN

Government should use its political capital to push through difficult reforms, instead of tightening CSR norms

ON TUESDAY, PARLIAMENT passed amendments to the Companies Act to tighten the norms pertaining to corporate social responsibility (CSR). Failure to comply with these new norms — for an activity that should ideally be voluntary — will not only attract fines but could also lead to imprisonment. Provisions such as these, which pave the way for the exercise of greater bureaucratic discretion, are unlikely to go down well with India Inc. More disquietingly, rather than revive animal spirits, these moves, which go against this government's stated belief in minimum government, will only further dampen sentiment, and distract even more from the pressing need to address the slowdown in economic activity.

Multiple indicators suggest that, despite various initiatives of the government, the Indian economy is the midst of a structural slowdown. With income growth slowing down, households have been dipping into savings and borrowing to finance their consumption. This is unsustainable. As it is, demand in both rural and urban areas is falling, as most high frequency indicators such as car and two-wheeler sales suggest. In such a situation, the temptation to squeeze the rich for short-term revenue considerations should have been avoided. Exports continue to remain subdued and are unlikely to perk up as global growth and trade are expected to moderate. The corporate sector, which is in the midst of deleveraging, is unlikely to ramp up investments quickly. The earnings season so far has been lacklustre. The issues in the NBFC segment are yet to be contained. The government's tax revenues in the first quarter of the current financial year provide a clear indication of how deep the slowdown is. Growth forecasts for the current financial year are already being pared down.

At this juncture, a business as usual approach will not suffice. With tax revenues growing at less than nominal GDP, the space for counter cyclical policy seems to be exhausted. Instead, the government may end up cutting its expenditure. Monetary policy has little capacity to reverse this decline in growth in the short term. With the limits of state-led growth being realised, it underscores the need to carry out deeper structural reforms. The hard-won political capital is better spent on pushing through contentious but necessary factor market reforms rather than expending it on misguided policies such as tightening CSR norms. An ambitious reform agenda is needed to create conditions conducive for a revival of private demand, investments and exports. Failure to course correct will undoubtedly dampen the hopes of achieving the \$5 trillion target.

THE FINANCE MINISTER'S budget announcement that out of its total borrowing requirement, the government will raise a modest amount in foreign currency in foreign markets has become quite contentious with many critics panning the decision as needless adventurism. It's not as if the government does not borrow from foreign parties; foreign portfolio investors are allowed, albeit within some limits, to buy the government's onshore rupee bonds. The difference now will be that the bonds will be offshore, denominated in hard currencies, and the government, rather than the investor, will bear the exchange risk.

For a country that has often showed off its abstinence from sovereign foreign currency exposure, even under great temptation, as a badge of honour, this is a surprising move. It has triggered two broad questions. Why this foray into uncharted waters? And why now?

The budget proposal responds to these questions in typically parsimonious language. The statement claims that at 5 per cent, the ratio of India's external debt to GDP is among the lowest in the world, thereby implying that the government can raise cheap money by tapping opportunistically into the global savings glut at a time when interest rates are at historic lows.

The other rationale advanced by the government is that by moving a part of its borrowing offshore, it will vacate space in the domestic capital market for corporates and thereby stimulate much needed private investment. This could have been a substantive motivation. An egregious consequence of our fiscal responsibility law has been for the government to keep its on-budget borrowing within the prescribed limits by pushing a significant amount of borrowing off-budget. Indeed, India's total public sector borrowing today, on and off budget, not only gobbles up the entire financial savings of households but also eats into corporate sav-

ings. The government's intent, perhaps, is to repair this damage.

It's not as if the proposal is outrageous, as painted by some critics. From a purely objective point of view, a persuasive case can be made for the dollar bonds. By far the biggest benefit will be the intangible impact of the government signalling its confidence about opening up the economy. For a country that has an unsavoury reputation of being excessively cautious in liberalising its external sector, the positive externalities of this unexpectedly bold decision can be significant. We will attract not just larger foreign portfolio flows but, in time, also larger foreign direct investment.

It is true, as the critics have argued, that the cost of borrowing in external markets will not be any cheaper than borrowing in rupees in the domestic market. The lower coupon rate will be offset by the cost of hedging against the foreign exchange risk. But if we view this not just from the narrow perspective of the government but from the larger perspective of the overall economy, there will in fact be cost savings. This is because the sovereign will command a lower interest rate than any other entity. If the proposed foreign borrowing just means the government displacing external commercial borrowing within the same overall debt ceiling, there will be net welfare gains for the economy.

The policy shift will also pave the way for Indian bonds entering global indices which will draw in index-tracking funds and reduce yields overall. Further, a dollar bond will enable India's risk premium to be more accurately estimated, potentially leading to a rating upgrade.

As against these putative benefits, there are formidable concerns. The biggest fear is that this adventurism will make India hostage to the wild swings of global sentiment. Investors are, after all, fair weather friends;

they lend liberally when the going is good, but swiftly back out at the slightest hint of trouble, exposing the country to volatile exchange rates and ruthless market turmoil. For a country that had a devastating external payments crisis in 1991 and came close to another one during the taper tantrums of 2013, these are dire warnings.

Critics have also contended that issuing debt in foreign currencies is a route followed by countries which are unable to issue debt in their own currency. India is certainly not in that category. If the idea is to attract more foreign inflows, it could be done by raising the ceiling for foreigners into onshore rupee bonds.

Moreover, the proposed dollar bonds may not raise overall foreign funding. Many investors who are now buying rupee bonds in the domestic market will happily pass on the currency risk to the government and switch to dollar bonds in the external market.

By far the biggest and possibly clinching argument against moving forward is the peril of the "original sin" which has brought many emerging markets to grief. Experience shows that governments start off believing that they will remain prudent, open their doors wider, and soon become so addicted to foreign money they wouldn't stop until a crisis hits them. To believe that markets can discipline governments is a stretch. The stories of Argentina and Turkey are telling examples.

There is no guarantee that India will not succumb to this temptation. Given our still fragile fiscal and financial sector situation, the costs of irresponsibility can be intolerably heavy. The government's proposal is the right way forward but it's an idea whose time has yet to come.

The writer is a former governor of the Reserve Bank of India

## HOMELESS IN ASSAM

The battle over NRC data pits government against Supreme Court, could open new faultlines

THE NATIONAL REGISTER for Citizens (NRC) process in Assam seems to be spinning out of control with the state government refusing to toe the line set by the Supreme Court. On Thursday, a senior BJP minister in the Assam government, Chandra Mohan Patowary, revealed the district-wise break-up of the NRC inclusion and exclusion data (from the draft report published in July last year). The Court had instructed the NRC coordinator, Prateek Hajela, to submit this sensitive data in a sealed cover. The minister's act is in defiance of the spirit of the Court order, therefore, and it may trigger new divides in the state. The move comes in the backdrop of the Court refusing to entertain the government's plea for a 20 per cent re-verification of the data in districts bordering Bangladesh. The Court also noted that Hajela had submitted that NRC officials re-verified 27 per cent of the data when it adjudicated on the citizenship claims.

The intent behind the state government's move to reveal the NRC data at this juncture is, clearly, political. The BJP government in Assam considers the NRC an instrument to isolate those who it sees as people who came from Bangladesh after March, 1971. It has been argued that districts bordering Bangladesh are prone to high levels of illegal immigration. However, the NRC has altered the picture and threatens to subvert the narrative on illegal migration. According to the figures revealed by Patowary in the state assembly, maximum exclusion from the NRC has been reported from districts not on the border but in Hojai and Darrang in central Assam. And, ironically, a large percentage of the people who have failed to prove their citizenship claims are members of indigenous tribes and Bengali-speaking Hindus. The anachronism is hardly surprising since the sort of documentation demanded of people by the NRC is not readily available or easy to produce, especially in non-urban and tribal areas with low penetration of the government. The government is apprehensive that the exclusions may trigger a backlash. It should have anticipated this situation since these concerns were flagged by civil society groups at the very outset.

Both the Supreme Court and the government need to be sensitive to the enormous impact the NRC will have on the people. An estimated four million persons may lose citizenship rights and would be forced to relocate to camps as non-citizens or doubtful voters. The enormity of the crisis on hand seems to have escaped the authorities — the SC frames the NRC as a legalistic exercise while the government views it through an ideological lens. Neither approach is helpful to resolving the human tragedy unfolding in Assam.

## CONSTITUTION GIRL

The video of a Russian teenager laying down the law to riot police has gone viral. For Putin, this isn't good news

VLADIMIR PUTIN MAY have shrugged off accusations that his enemies have been meeting their deaths in suspicious circumstances. And he had a good laugh at the expense of the international press when he was asked about Russia hacking the US election. But he may find it much harder to shake off the shadow of a 17-year-old Russian girl who knows her rights, has read the Russian Constitution and persistently read it out to Putin's riot police, who had been called out to quell a street protest in Moscow. Especially the part which guarantees the right to peaceful assembly.

Olga Misik, 17, joins the ranks of iconic young protesters of our times, who have been captured on film wherever government is tyrannical and protest is brutally repressed. The wave is presumed to have begun with flower power, when a young man was photographed sticking carnations into the rifle muzzles of military police during the March on the Pentagon in 1967, which called for an end to the Vietnam war. However, there were images from behind the Iron Curtain, too, of guns and bayonets versus flowers and babies. And the icon of 20th century protest is Tank Man, who halted heavy armour in Tiananmen Square simply by getting in the way.

Olga Misik is perhaps the first such protester who has spoken freely about her motives. The agitation objected to the banning of opposition politicians from forthcoming elections to the Moscow Duma, but she took a longer view — today, the Duma, tomorrow, a province. And she herself wanted to remind the police that the protesters were there "with peaceful purposes and without weapons." The Mahatma would have been delighted to learn of such a fearless pupil in Moscow.



KHALED AHMED

SOME RETIRED GENERALS regularly appearing on TV in Pakistan — the army chief is on record saying they are not briefed by the army — have been recommending the "mainstreaming" of religious elements, dubbed "terrorist" at the UN. They presume that the "mainstream" is "normal" and "harmless". Some mainstreaming was visible during the last election which brought Imran Khan's Tehreek-e-Insaf to office. The "parties" fronting such madrassas, as the terrorist-declared Lashkar-e-Taiba, did rather well by cutting into the votebank of the rightwing Pakistan Muslim League, which lost the election and was pilloried for "corruption".

Notwithstanding the FATF ban on some madrassa-based non-state actors, the madrassa is powerful in Pakistan. Because of the decades of "jihad" in Afghanistan, they became well-funded because their graduates brought home "power" along with the money from "outside". One madrassa became so powerful that it took on the state, General Pervez Musharraf in fact. He took on the Lal Masjid madrassa of Islamabad which was visited often by "messengers" from the army of Osama bin Laden.

In 2007, after Lal Masjid attacked massage parlours in Islamabad for being "un-Islamic", Musharraf decided to "correct" the madrassa, only to have his commandos killed by the "mujahideen". His Operation Silence destroyed the seminary, killed the brother of Maulana Abdul Aziz, the head of the madrassa, while the "Islamised" people of Islamabad disliked the Operation. The commando unit that carried out the operation was attacked by a suicide-bomber at its Haripur headquarters, killing 15 soldiers. Al Qaeda declared the foundation of Tehreek-e-Taliban Pakistan (TTP) in response to Operation Silence.

## MADRASSA AS MAINSTREAM

Religious seminaries have made literacy toxic in Pakistan

Pakistan's basic education sector is broken. Azmat Abbas in his book, 'Madrassa Mirage: A Contemporary History of Islamic Schools in Pakistan' says the 3,03,446 schools that cater to 1.7 million children are taught by teachers who can hardly impart the kind of education the children coming from poor homes need. The teachers simply reinforce the religious content prescribed in the provinces. This is the 'mainstream' that Pakistan thinks is 'safe'.

The madrassa was actually "mainstream"; General Musharraf and his army were not. After nearly a decade, Musharraf went into exile while Maulana Abdul Aziz stayed put, amply rewarded by a Supreme Court compensatory verdict. In 2017, on the eve of the election that was to replace the government of Nawaz Sharif, Abdul Aziz threatened to observe the Martyrs' Day for "900 innocent girl seminarians" killed by Musharraf. Backed by the Taliban, he was the most powerful person in Pakistan. When Islamabad tried to talk "peace" with the Taliban, the latter chose Maulana Abdul Aziz and Imran Khan as their "vakils" (lawyers).

Azmat Abbas in his book, *Madrassa Mirage: A Contemporary History of Islamic Schools in Pakistan* says the 3,03,446 schools that cater to 1.7 million children are taught by teachers who can hardly impart the kind of education the children coming from poor homes need. The teachers simply reinforce the religious content prescribed in the provinces. This is the "mainstream" that Pakistan thinks is "safe".

According to Abbas, the madrassas are getting ready to "mainstream" Pakistan instead in the ways of extremist faith. After "mainstreaming" was suggested on TV, the madrassas responded by a remarkable proliferation. It is not easy to set up a functioning madrassa with facilities that state schools can only dream of. Abbas writes: "Recent statistics show that the number of madrassas was less than 14,000 in 2013-14. By the end of 2016, however, they increased to 32,272, marking a growth of over 50 per cent."

One can't ignore the fact that most of the organisations declared terrorist abroad or seen as violent by Pakistanis are madrassa-based. This pattern has grown out of the

practice of using "non-state actors" by the state. "Given the information available," Abbas argues, "most of the militant sectarian and jihadi organisations either originated at madarassas or were established by those who studied at Islamic religious schools. For instance, Tehrik-e-Nifaz-e-Fiqah-e-Jafaria was formed by Mufti Jafar Hussain, a student of Madaris in Lucknow and Hauza Imam-e-Najaf, Iraq; Maulana Haq Nawaz Jhangvi, a student of Darul Ulum Eidgah Kabirwala, established the Sipah-e-Sahaba Pakistan; Maulana Masood Azhar, a student of Jamia Ulum Al-Islamia, Banuri Town, Karachi, established the Jaish-e-Muhammad; Maulana Fazlur Rehman Khalil, a graduate of Jamia Ulum Al-Islamia, Banuri Town, Karachi, founded Harkatul Mujahideen, and later Harkat-e-Jihad-e-Islami and so on."

In Pakistan, early education is heavily ideological. Scholars like Javed Ahmed Ghamidi who recommend that early education be non-ideological can no longer live in the country. Literacy, therefore, has become toxic, broken in part only if you send your children to an English-medium school. But under the current government, this stream of education is under threat. English-medium schools are seen as creating "two nations" instead of the "single" one desired by their reading of the constitution. A Supreme Court chief justice, now thankfully retired, took punitive action against them — before going to England to see his son being educated in a university which is "English-medium".

The writer is consulting editor, Newsweek Pakistan



## AUGUST 3, 1979, FORTY YEARS AGO

VAJPAYEE ON RSS ATAL BIHARI VAJPAYEE'S open criticism of the role of the RSS has prompted some rethinking in the socialist camp and brightened the prospects of George Fernandes' break-away group rejoining the Janata Party. In a letter to Vajpayee, Fernandes wrote: "Just a line to say that I appreciated your article in 'The Indian Express' today. The question is now to carry to the logical end the issues you have raised in the article, particularly on the RSS and its role. I am willing to sit with you and work out a solution, if you think it is possible to do it." In his article, Vajpayee wrote: "The RSS, claiming to be a social and cultural organisation, should have taken greater pains

to demonstrate that they did not seek a political role." Vajpayee had said it was possible that some people felt genuinely apprehensive about the RSS. Calling for a "clear enunciation by the RSS that by 'Hindu Rashtra' it means the Indian nation, which includes non-Hindus as members," Vajpayee said the RSS should, alternatively function "only as a Hindu religious-cum-social cultural organisation".

JUSTICE KHANNA QUILTS UNION LAW MINISTER Justice H R Khanna resigned from the Cabinet. In his resignation letter to Prime Minister Charan Singh, Khanna is believed to have stated that he is

not cut out for politics. Many of Khanna's friends in the bench and the bar are believed to have told him that they were surprised to see him in the government, which was in the saddle because of Mrs Gandhi's support.

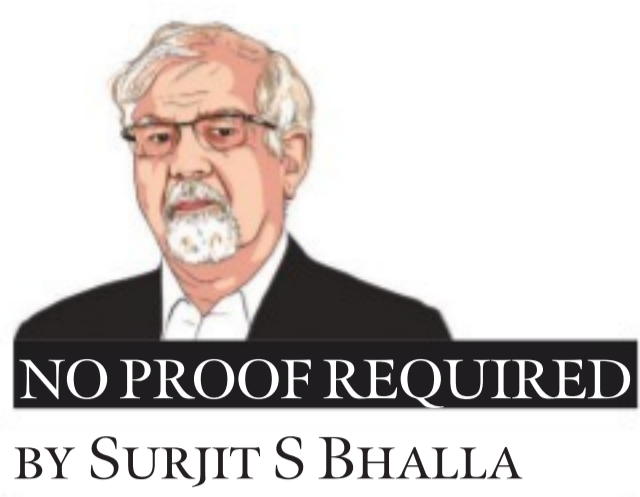
HIDAYATULLAH FOR VP POLITICAL PARTIES HAVE agreed to adopt former Chief Justice of India, M Hidayatullah, as candidate for vice-presidency. Hidayatullah, 74, has been leading a retired life after serving the judiciary. Hidayatullah served a brief stint as Acting President after then vice-president V V Giri resigned from the post to contest for presidency in 1969 following Zakir Hussain's death.



# 15 THE IDEAS PAGE

## Borrow abroad and profit

Cross-country evidence supports the conclusion that the sooner India engages in foreign currency borrowing, the quicker it can profit from this market imperfection



THE FINANCE MINISTER'S budget speech contained a new policy statement — GOI was planning to issue 10 year bonds denominated in foreign currency. This proposal has generated a controversy, unlike most others. Every budget has good, bad, and ugly components. And critics are free to choose and comment on what they like, or hate. There are very few, if any, analysts who believe that the income-tax proposals in Budget 2019 have any merit. Likewise, there are very few experts who believe that issuance of foreign currency bonds is a good idea. Indeed, the list of eminent experts who think it is an ugly idea is near endless.

Former RBI governor and distinguished economist Raghuram Rajan states the following in a recent *Times of India* article: "Foreign bankers often meet finance ministry officials, trying to persuade India to issue a foreign bond. In my experience, they usually started by saying that such borrowing would be cheaper because dollar or yen interest rates are lower than rupee interest rates. This argument is bogus — usually the lower dollar interest rate is offset in the longer run by higher principal repayments as the rupee depreciates against the dollar." He has been joined by my ex-PMEAC colleague and good friend Rathin Roy who went a step further and stated: "Show me one country after world war which has done a foreign currency sovereign bond and not paid dearly for it." Further: "I would pay very careful attention to what several governors of the Reserve Bank are saying, that these are sovereign liabilities in perpetuity. I think there are serious issues regarding loss of sovereignty, which need to be addressed. I do not think that the argument that it is cheaper is a good one, I think it doesn't even hold if you add hedging costs and I don't buy the simple argument that if something is cheaper, it is good." (*Business Standard*, July 23, 2019).

In addition, the Swadeshi Jagran Manch (SJM) has stated that the issuance of foreign denominated bonds is anti-patriotic, that it would lead to a loss of sovereignty, and would lead to currency depreciation. To my knowledge, this is the first time esteemed economists and SJM are on the same side of an economic argument — can both be right, or are both wrong?

The only eminent person (known for his balanced views) to publicly favour a sovereign foreign bond (SFB) is former RBI governor Bimal Jalan who stated "At the moment we are in a fortunate position. Our debt to GDP ratio is not very high, exchange rate is stable, and foreign exchange reserves are high. So foreign borrowing, if its long term, which it would be, is not a problem." Former RBI governor YV Reddy had a more nuanced comment stating that if foreign bond issuance was accompanied by a move towards greater capital account convertibility then it may be worth pursuing.

The key issue in this debate, as nearly always, is empirical, and has to do with currency depreciation. Show me the money (evidence) and win the argument. Simple accounting math about foreign borrowings is as follows. All examples are with respect to dollar bor-

**AVERAGE 10 YEAR DEPRECIATION BETWEEN 2009 AND 2019**

Country	Dollar	Yen	Euro	Pound	Average
India	26	37	33	13	27
Indonesia	23	34	30	10	24
Thailand	-17	-5	-10	-30	-16
Brazil	12	24	19	-1	14
Chile	0.3	12	7	-13	2
Mexico	36	47	43	23	37
South Africa	35	46	41	21	36
Emerging economies	31	42	37	18	32
Advanced economies	-6	5	0	-20	-5

Source: IMF WEO data; Note: Only non-oil and economies with population > 10 million included

rowings, but the same set of arguments apply to borrowing in the other three currencies — yen, euro, and the British pound. A country pays a country premium for borrowing in dollars; currently the US 10-year bond is trading at 2 per cent and Indonesia just borrowed in June 2019 at around 3.6 per cent; at the time it borrowed, it paid close to a 1.5 per cent premium. A complex set of factors determine the country premium, but the magnitude of reserves and foreign currency debt are important attributes. About 40 per cent of Indonesia's debt is denominated in foreign currency; in India it is less than 5 per cent. India should be able to borrow at a somewhat lower premium than 150 bp, possibly 130bp.

India can borrow abroad in dollars at 3.3 per cent or borrow foreign money in rupees (a masala bond) at a 3 per cent higher premium, or at 6.3 per cent (the current government 10 year bond is trading at 6.35 per cent). The difference between 3.3 and 6.3 per cent is the depreciation premium that emerging countries pay.

This is what the market "demands" and it is unlikely that this premium has shifted too much for emerging markets over the last 20 years. Over a 10 year period, the 3 per cent annual depreciation assumption means an economy pays 35 per cent more with a masala bond than with an FCB. If the cumulative depreciation at the end of 10 years is more than 35 per cent, the borrowing country loses; if less, than the borrowing country gains. The entire argument against foreign bonds (except the patriotic one) is whether this depreciation has been (and is expected to be) more than 35 per cent over a 10-year period.

Data on 10 year currency depreciations are reported for several countries for the period 2009 to 2019. This assumes that each country started borrowing in 1999, one year after the East Asian crisis. Respected scholars (and policymakers) hark back to the Asian crisis for clues about what will happen to India's exchange rates over the next decade. Do these esteemed scholars recognise (let alone appreciate) that the rupee/dollar exchange rate was Rs 42 in 1998 (Asian crisis) and Rs 40 10 years later in 2007? This despite Indian inflation rates averaging 3 per cent higher, per year, than the USA during this period.

In the sample of countries chosen, I have included three countries from Latin America (Chile, Brazil, and Mexico) to satisfy the critics' assumption that if India were to borrow \$10 billion, or \$30 billion, even \$50 billion, we would face a Latin American crisis. Serious economists have invoked this "threat" in their

arguments, so it is prudent to account for it. Note that the period chosen is a fairly long one (20 years) and involves close to 90 countries. What do the results show? Unambiguously, that it pays for a country to borrow abroad. Let us take the case of India first. Against the US dollar, the average 10-year depreciation since 2009 for India (or average annual depreciation since 1999) is 26 per cent. Which means that India would have made a profit of close to 10 per cent for each 10-year bond that it floated.

Recall what Rajan said about this possibility. He called it bogus. The two worst-performers are Mexico and South Africa, and even these two economies break even. Even an average emerging economy makes a profit of 5 bp on every FCB bond it has floated over the last 20 years. This puts into question Rathin Roy's conclusion that every country has paid dearly for FCBs; empirically, the result is the opposite — since the East Asian crisis, most countries have profited handsomely. I don't know the veracity of his conclusion post WWII; maybe the few who borrowed abroad (particularly in Latin America) paid dearly between 1945 and 1998. But for each Latin American disaster, there is an Asian success story. So which continent does Roy (and others) believe that India is comparable too?

Indian inflation has moved structurally downward over the last three years and thankfully the post Patel-Acharya MPC realises this fact. However, in the six months prior to Das's first rate cut in early February 2019, inflation had averaged 3.7 per cent and the real repo rate had averaged 2.8 per cent (defined the RBI/MPC way of current repo rate minus two month earlier inflation). In the six months since (February 2019 to July 2019), two-month lagged inflation has averaged 110 bp lower at 2.6 per cent that is, despite 75 bp of repo rate cuts, the average real repo rate has moved higher to an average of 3.4 per cent, an increase of 60 bp.

All the empirical evidence (past and expected future) suggests that the finance minister's idea of floating FCB's is a terribly good idea — one whose time has definitely come. It will also help to significantly lower the real repo rate to respectable levels. No country, has grown at "trend" rates with a real repo rate around 3.4 per cent, not even 2.4 per cent and not even 2 per cent. So please MoF borrow abroad; and please RBI/MPC, smell the real rate before deciding on monetary policy.

The writer is Contributing Editor, *Indian Express*. Views are personal



C R Sasikumar

## WHAT THE OTHERS SAY

"The time is right to take up US President Donald Trump's offer of mediation between Pakistan and India, specifically focusing on Kashmir." — DAWN

## Two plus one

Imran-Trump talks in Washington have some significant messages for Delhi on Afghanistan and Kashmir. The dynamic has changed again



NIRUPAMA SUBRAMANIAN

THE GROUND BENEATH India-Pakistan relations has moved once again, and all it took was the coming together of two maverick celebrities-turned-heads of state in a distant capital jamming about Afghanistan and Kashmir.

Five months ago, India celebrated what Prime Minister Narendra Modi and the BJP described in election speeches as a victory over Pakistan. Others more circumspect demurred from describing the IAF strike in Balakot, carried out after the Pulwama bombing, in victory-defeat terms. After all, India had lost one aircraft to Pakistani fire with the pilot captured; another aircraft with six IAF personnel plus a civilian on the ground to friendly fire; and could put up no hard evidence, at least in the public domain, to back the claim that the IAF airstrikes had killed terrorists in a Jaish-e-Mohammed training camp. Still, there was no denying that despite the nuclear overhang, India had found the space to carry out a conventional military response to a terrorist attack claimed by a Pakistan-based group.

The seeming international isolation of Pakistan at that time and the pressure on it to return the pilot captured when the IAF plane was downed, were seen as a success of PM Modi's diplomacy in the world. The UN designation of Jem head Masood Azhar was the icing on the cake. It all came together nicely for India then, not to speak of how it was milked for the election. Later, there was euphoria that Pakistan had been kept out of the guest list for the new government's inauguration. The FATF's threat to blacklist Pakistan by October was received in Delhi with a sense of vindication.

What India forgot, or ignored, was that, for the US, when it came to Pakistan, it was always going to be about Afghanistan. Pakistan is no longer looking isolated. Prime Minister Imran Khan's visit to Washington has shown that US need to engage with Pakistan on Afghanistan is greater than its need to isolate it. It has shown three other things — Delhi cannot push its own ties with Pakistan into a freezer and forget about them, and expect the world to forget about them too; two, with Trump ready to make deals with Pakistan, the government cannot be as gung-ho about the BJP's ideological projects in Kashmir as statements by senior ministers suggest; and three, it is Delhi that is looking isolated on Afghanistan.

Riding on its credentials as the facilitator of the Afghan peace talks, Pakistan looked very much at home in Washington. And Imran Khan, who was being exorcised by opponents back home for a below average one year in office, returned home on the anniversary of his election victory, as he said, not as a PM coming back from a visit to the US, but like a cricket captain coming home with the World Cup.

What did Pakistan get out of the visit? Nothing tangible yet — military aid that the US suspended in January 2018 remains sus-

pending; the \$125 million announced days after Imran Khan's visit is for end-use monitoring of Pakistan's F 16s and was likely unrelated to the visit.

But never since 2001 has Pakistan heard so much praise and gratitude from the US. For the first time in nearly two decades, here is a US President who has not asked Pakistan to "do more", and is focussed instead on how to "extricate ourselves" from that country. The Pakistan Army's key role in bringing the Taliban to the table has pushed to the far recesses of Trump's transactional mind his outbursts against "lying" "deceitful" Pakistan. In gratitude, he played Pakistan's song by offering to mediate on the Kashmir issue.

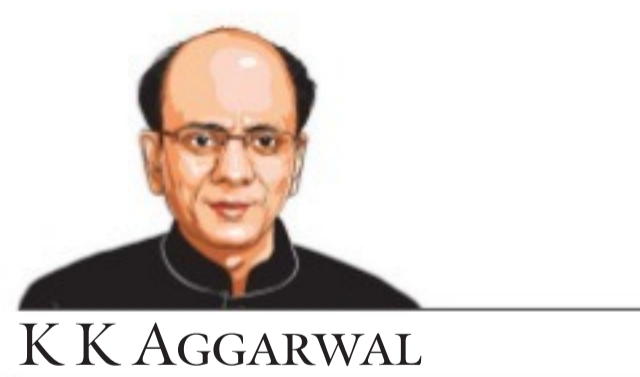
India dissed Trump's remark that PM Modi asked him to play the role of mediator in Kashmir as untrue, but that did not prevent the US President from making the same offer once again, a week later. There was another India reference at the Khan-Trump meeting, recorded in the transcript: "But we will be talking about India; a very big part of our conversation today. And I think maybe if we can help intercede and do whatever we have to do. But I think it's something that can be brought back together. And we'll also be talking about Afghanistan... we will be talking about India and Afghanistan very much so," President Trump said.

No joint statement was issued after the Imran-Trump meeting, which mostly means there was nothing spectacular to say. But while the Trump Administration may not have materially shifted its position on Pakistan, in the coming weeks and months expect Pakistan to milk Trump's change of heart for what it is worth before it changes again, a real possibility if the Rawalpindi lot fail to deliver on their commitments in Afghanistan — getting the Taliban to agree to a ceasefire, and to talk to the Afghan government. For starters, Pakistan must be eyeing the looming October deadline set by the FATF. The FATF is a US baby.

India has also just conceded, while dismissing Trump's offer of mediation on Kashmir and asserting that all outstanding issues with Pakistan will be settled bilaterally, that Kashmir is a bilateral issue. So, contrary to what the Modi government has maintained all along, there is something to be discussed with Pakistan on Kashmir. But if India and Pakistan cannot resolve Kashmir bilaterally, others are going to want to help them do that, especially if they have to step in from time to time to separate the two during fights. For now, Trump's repeated offers of mediation make it difficult, if not impossible, for the BJP to ram through its dream constitutional changes in J&K, even though the manner in which senior members of the government have been rattling the Kashmir cage indicates otherwise.

What the government should be obsessing about more than its ideological project in J&K right now, is how the Afghan deal in the making, in which Pakistan has emerged as the main player and India has no role to play, could impact the situation in Kashmir, and further, how to begin an engagement with Pakistan, if not outright dialogue, that would help Delhi extricate itself from a self-painted corner and prevent outsiders from rushing in with offers of help.

nirupama.subramanian@expressindia.com



K K AGGARWAL

## Losing the golden hour

What does it say about health care if even celebrities don't get critical first aid?

WILL WE GET timely healthcare when we need it is a question often asked by people in India. The answer, unfortunately, is no. Cardiac arrest revival needs to be done within four minutes, angioplasty in a heart attack needs to be conducted within 90 minutes and a road traffic accident victim needs to be provided on the spot first aid within 10 minutes and the victim's vital parameters should stabilise in an hour. Advanced ambulance care needs to reach the victim within four minutes. But even in Delhi, a patient cannot get such care.

The right to health and right to timely medical care is a fundamental right under Article 21 of the Constitution. But are we getting timely medical care? The December 16, 2012 rape victim, for example, was transferred from Munirka to Safdarjung Hospital — a distance of 6.2 km allegedly covered in 45 minutes — without any help.

The then NDMC chairman, Imtiaz Khan, died on April 23, 1998, at his office in the building which housed the health department. Were advanced resuscitation measures administered to him?

Congress leader, Rajesh Pilot died in 2000 in a car accident in Dausa less than 100 km from Jaipur. He was in a coma when he was admitted to the Sawai Man Singh Hospital, Jaipur. The situation could have been different if he was carried in an advanced ACLS

ambulance? The golden hour was lost.

Former president, Giani Zail Singh, died in Chandigarh on December 25, 1994 after receiving multiple injuries in an accident on November 29 that year. The accident happened near Kiratpur Sahib in Ropar district. He was shifted to Chandigarh, 45-km away. Was he shifted in ACLS ambulance or provided a golden hour first aid in Ropar?

Former Delhi chief minister, Sahib Singh Varma, died on June 30, 2007, when his car collided with a truck on the Jaipur-Delhi highway (NH-8). He was taken to the Shahjapur Civil Hospital, 13 km away from the accident site. Obviously no ACLS care was available for so short a distance.

Gopinath Munde, then the Union Minister for Rural Development, met with an accident at Prithviraj Road-Tughlak Road roundabout in Delhi at 6 am on June 3, 2014. He was brought to the AIIMS by his driver and assistant. The doctors said that Munde was not breathing when he was brought. Why was he shifted to the hospital? The ambulance should have come to him. Did the ACLS ambulance reach the spot?

One report of the death of former president A P J Abdul Kalam quotes his secretary, Srijan Pal Singh. Singh apparently heard a long pause from the former president when he was two minutes into his speech at IIM-Shillong. Singh's account is a class descrip-

tion of an impending heart attack. Kalam's eye's were three-quarters closed as he collapsed, according to his former secretary. When there was a doctor at the site, why did the former president's secretary attempt to revive him?

Singh's recollection that Kalam's hands were clenched, his face was still and his eyes motionless, is a classic representation of cardiac arrest caused by ventricular fibrillation. As per Singh's statement, he was brought to the nearest hospital within five minutes of the cardiac arrest. There are three phases of cardiac arrest. The electrical phase comprises the first four to five minutes and requires immediate defibrillation. The hemodynamic phase lasts about four to 10 minutes following a sudden cardiac arrest (SCA). Patients in the hemodynamic phase benefit from excellent chest compressions to generate adequate cerebral and coronary perfusion and immediate defibrillation. The metabolic phase occurs following approximately 10 minutes of loss of pulse. Few patients who reach this phase survive.

In the first 10 minutes, there are high chances of revival using hands only CPR followed with DC electric shock.

A study in *The Lancet* has shown that about 15 per cent of patients who survived needed at least 30 minutes of resuscitation. Why was not advanced CPR given to Kalam

for the full period?

Former minister of state for external affairs, E Ahmed died on February 1, 2017. He suffered a cardiac problem while the President was addressing Parliament. There were over 30 doctors amongst the MPs at that time. No one was approached. He was shifted to Ram Manohar Lohia hospital, where he died. Why can't the President's speech be stopped for such emergencies?

Former Delhi CM, Sheila Dikshit, died on July 20, 2019 at the Escorts Heart Institute. She experienced breathlessness at her home in Nizamuddin and was shifted to Escorts in Sarita Vihar in a car — a distance of six km, which takes up to 24 minutes as per the Google map. She had a cardiac arrest on the way. Why was she not provided an ACLS ambulance at her home?

Amitabh Bachchan was saved because of timely local first aid. On August 2, 1982, on the sets of the film *Coolie*, he had a near-fatal accident and was shifted to nearby hospital. He was shifted to Mumbai later. The early treatment helped in saving his life.

We have a fundamental right to receive point of care advanced first aid within four minutes. But people in need don't always get it.

The writer is President Elect Confederation of Medical Associations of Asia and Oceania

## LETTERS TO THE EDITOR

### ARCHAIC LAWS

THIS REFERS TO the editorial, 'Power not justice' (IE, August 1). Since criminal punishment for a civil wrong is against the basic principles of criminal jurisprudence, why has the dichotomy in Muslim personal law regarding polygamy not addressed? It is coercive to uphold archaic practices in the personal law. Criminalisation of talaq-e-biddat should be the first step towards a secular and a non-discriminatory uniform civil code.

Karan Dhawan via e-mail

### HOPE FOR CURE

THIS REFERS TO the article, 'Healthcare is ailing' (IE, August 2). The health sector has been ignored by successive governments. People have lots of hope from the Narendra Modi government as regards the health sector. One of the main reasons for the poor state of affairs in healthcare is the paucity of good hospitals for the poor. The medical profession has become akin to commercial business. Funds should be allocated for medical research.

Veena Shenoy, Thane

### FOOD UNITES

THIS REFERS TO the editorial, 'Eat, pray, love' (IE, August 2). The Unani describes food as god. Any food item is composed of ingredients which come from agricultural lands which have been worked upon by several workers. It is quite likely that all such

### LETTER OF THE WEEK

#### GETTING HOT

THIS REFERS TO the editorial, 'Cool Down' (IE, July 30). The editorial is smart and funny. But the ability of Indians to adapt to heatwaves could only be a boon in the short term. We should be focussing on controlling global warming and climate change. Because I'm afraid that after some time, even dhotis and gamchas will not serve any purpose.

Diyam Khandelwal, Jaipur

people do not have a single religious belief. To a hungry or thirsty man, food is greater than religion. Sujata's food was precious for Gautama. Who was Sujata? That would be a foolish question.

Tapomoy Ghosh, Kolkata

### LESSONS NOT LEARNT

THIS REFERS TO the editorial 'Bleak math' (IE, August 2). The economic slowdown is becoming more serious by the day because the NDA government continues to extol its policies like demotisation instead of learning a lesson from them. Its talk of a \$5-trillion economy is nothing but hyperbole.

Tarsem Singh, Mahilpur