

AMARTYA SEN: THE LION WHO DEFIES WINTER

S. NAZRUL ISLAM

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Amartya Sen: The Lion Who Defies Winter

A personal tribute on the occasion of his 90th birthday

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Amartya Sen: The Lion Who Defies Winter*

A personal tribute on the occasion of his 90th birthday

S. NAZRUL ISLAM**

Preliminaries

There is no dearth of discussions about Amartya Sen's intellectual achievements. Not so long ago, in a program titled "Reading Amartya Sen," organized by Banglar Pathshala, Bangladesh's prominent economist Wahiduddin Mahmud delivered an erudite lecture on the relevance of Sen's thoughts for contemporary Bangladesh (Mahmud, 2020). So, in my lecture today, which is organized to celebrate his 90th birthday, I will focus mostly on Amartya Sen as a person. Accordingly, I plan to tell some stories instead of a heavy-duty discussion of theories. These stories will obviously involve me. Though I generally don't like to talk about myself, I will, therefore, have to do some today, and I apologize at the outset for that. However, I hope that this self-indulgence will be redeemed by the fact that it will show you how wonderful Amartya Sen is as a person, in addition to being one of the greatest intellectuals in the world. Since I had the privilege of personally knowing and interacting with Amartya Sen, I call him Amartya-da. That is how I will refer to him mostly in this lecture, though, at some

^{*}Public lecture delivered at Bangladesh Institute for Development Studies (BIDS) on November 2, 2023, on the occasion of Amartya Sen's 90 that birthday (November 3, 1933).

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places, I will also use Amartya Sen or just Sen. With those introductory words, let me now get on to the stories.

Invitation to Shantiniketan

I met Amartya Sen for the first time when I went to Shantiniketan in the winter of 1987 at the invitation of Sunil Sengupta, who was a researcher at that institution.¹ Sunil-da's brother, Santosh Sengupta, was a professor of philosophy at Shantinekaton, and their family hailed from the Barishal Division of Bangladesh. Unsurprisingly, they were fond of Bangladesh and tried to keep track of what was going on there. It was partly this inquisitiveness that drew Sunil-da's attention to my book, বাংলাদেশের উন্নয়ন কৌশল প্রসঙ্গ, published in 1984, and he took the trouble of writing to me a letter, praising the book. In particular, he appreciated the fact that I wrote it in Bangla and that, in the process, I developed some Bangla vocabulary for discussing complex economic issues. Needless to say, I found Sunil-da's letter encouraging because the book did not receive much attention from the economics profession in Bangladesh, probably, in part, due to the fact that it was written in Bangla! The exception was Anu Muhammad, who wrote a perceptive review. I, therefore, found the response from Sunil-da quite reassuring. He also invited me to visit West Bengal. However, I was not thinking of doing so because, frankly speaking, I did not have the money! I, therefore, almost forgot about it.

Then, in 1987, after my more substantive book, বাংলাদেশের উন্নয়ন সমস্যা: বর্তমান উন্নয়ন ধারার সংকট এবং বিকল্প পথের প্রশ্ন, came out, the publisher, Mofidul Hoque – whom I call Mofidul bhai – asked

¹ In his Memoir, Amartya-da refers to Sunil as one of his Shatinekatan friends. It is quite possible that this is the same Sunila-da I am referring to.

me whether I would like to join him to go to Kolkata to attend the annual Book Fair.² Sensing that this was probably some kind of compensation for any royalty that I might expect from the book, I agreed! The additional reason was that I was then recently married, and this trip could be something that I could arrange to make my wife happy! Thus, we went to Kolkata, the first time for both my wife and me, and we enjoyed the city and the Book Fair. It was then that I received a phone call from Sunil-da, who came to know from Mofidul bhai about my presence in Kolkata. I understood that he was a close acquaintance of Mofidul bhai, through whom he had also sent me his letter of appreciation that I had just mentioned. With some excitement in his voice, he told me, "Come up to Shantineketon! You will have the opportunity to meet Amartya!" He explained that a meeting would be held at Shatineketon to discuss the findings of a research project that Amartya-da was leading, with Sunil-da as the coordinator. Sunil-da added that many prominent economists of West Bengal would attend the meeting, so I will have the opportunity to meet them, too. A visit to Shatineketon was something that we should have considered anyway, but Sunilda's invitation and the prospect of meeting Amartya Sen was something that certainly could not be missed! So, we boarded the train soon and headed for Bolpur³.

"Entitlement" and "Choice of Techniques"

Amartya Sen was, of course, well-known to me through his works. I, like other economists in Bangladesh, knew about his

² In his Memoir, Amartya-da speaks of the significance of this book fair in the intellectual and cultural life of West Bengal.

³ Bolpur is the name of the township where Shantiniketon is located.

theory of "entitlement" and his proposition of "entitlement failure" as an explanation of famines (Sen, 1982). I knew that there were some who did not fully appreciate the intellectual advance that the "entitlement" concept represented. Some of them thought that it was only another label attached to the old concept of "purchasing power." Others still emphasized the lack of aggregate availability of food as the main cause of famines.⁴ I, however, had no problem in seeing the power of this concept.⁵ Just as Amartya-da had a direct experience of the 1943 famine, I also had the direct experience of the 1974 famine through my relief work among the famine victims, following my participation in the relief work for the victims of the devastating flood of that year. We collected food from the households of several neighborhoods and distributed it among those who had flocked to Dhaka City for survival. The process

⁴ It may be noted that Nurul Islam, in his memoirs, *Odyssey* (Islam, Nurul, 2017) recalls attending one of Amartya Sen's seminars, at which he cited facts showing the importance of Aggregate Food Availability.

⁵ As Amartya-da himself pointed out, the lack of aggregate food availability cannot explain the Bengal famine of 1943, when the government bought plenty of food from the market for the soldiers and other personnel, thus driving up the price sharply. More instructively, neither aggregate availability nor purchasing power could explain the famines of the Soviet Union in the early thirties and in China in the early sixties, when both these countries were actually exporting grain in order to support their industrialization programs. Also, "purchasing power" ceased to be an operational concept in these countries during those times because of the abrogation of the market mechanism and establishment of distribution through administrative means. In fact, apart from Amartya-da's direct experience of the 1943 famine, it was his greater knowledge - more than that of most mainstream economists - about the economic history of these socialist countries that might have helped him to arrive at the concept of entitlement.

showed me that the lack of aggregate availability was not the binding constraint and that some redistribution of food could have saved many lives. However, in the summer of 1974, the hungry people's entitlement to food was not perceived to be strong enough to prompt the political leadership to carry out the necessary redistribution.⁶ As we know, because of its greater explanatory power, the entitlement concept also offers a wider set of policies for preventing famines. These include, apart from raising the aggregate availability of food, mobilization of vulnerable people, upholding press freedom, ensuring democracy, etc. As for Bangladesh's 1974 famine, apart from issues of aggregate availability, lack of mobilization clearly played a role.

I was also familiar with Amartya-da's work on the choice of techniques (Sen, 1960). I was led to this body of his work by my research relating to the economics of irrigation done at the Agro-Economic Research (AER) section of the Ministry of Agriculture, where I served as a Senior Scientific Officer briefly after my return from the Soviet Union in 1980. For this research, a large survey was conducted across the country, covering all different methods of irrigation, including Deep Tube Wells (DTW), Shallow Tube Wells (STW), Low Lift Pumps (LLP), as well as manual traditional methods (Islam, 1986). The latter led me to ponder on how much to recommend them for future irrigation expansion in Bangladesh. I could see the attractive aspects of the traditional methods. First was their no-import requirement, which was important because of the country's acute foreign currency shortage at that time.

⁶ I also had the opportunity to study in the former Soviet Union during 1975-1980 and therefore had a greater understanding of nonmarket distribution and of the economic history of the Soviet Union.

Second was their labor-intensive character, which would mean more employment compared to modern irrigation technologies. Third was their small-scale, which was suitable for Bangladesh's small-holder agriculture. However, to be sure I was on the right track, I checked into Sen's work on "Choice of Techniques," which is based on his Ph.D. thesis done at Cambridge University. I found that while my reasonings were correct, I was missing the macroeconomic issue of the premium to be attached to savings in a country that had low savings rates but required large amounts of savings for investment and growth. From this viewpoint, the traditional irrigation methods might have been at a disadvantage because, if conducted through hired labor, large amounts had to be paid to laborers as wages, which would be used mostly for consumption. It was possible that traditional methods would be used mostly by small farmers, having idle family labor, so that the additional output would belong to the family. However, even then, given their low baseline level of consumption, much of the additional output would go for consumption. Thus, the issue of the inability of traditional methods to generate enough savings couldn't be avoided. However, there were issues on the other side, too. First, the determination of the optimal saving rate was not that straightforward. Second, the very consumption by the laborers, either hired or family members, could be seen as an investment in human capital because of the resulting improvement in their nutrition. Be that as it may, I realized that the issue of the appropriateness of labor-intensive technologies was not as simple as it might otherwise appear.

I was also aware of the extension of some of the choice of technique issues in the UNIDO Guidelines for Project *Evaluation* that Amartya Sen, Partha Dasgupta and Stephen Marglin (1972) offered. In these guidelines, in addition to the savings optimality issue, important considerations were given to issues of income distribution and the distinction between merit and non-merit goods. The differences between these Guidelines and the methodology offered earlier by Iaan M.D. Little and James Mirrlees, in their *Manual of Industrial Project Analysis in Developing Countries* (1968), were of particular interest to us in those years.

However, at that time, I did not have any detailed knowledge about Amartya-da's seminal contribution to the social choice theory. I had some vague ideas about Arrow's Impossibility Theorem, but did not know how Amartya-da had modified it. Hence, with rather limited knowledge about his work, we headed toward Bolpur, with both excitement about the prospect of meeting Amartya Sen in person as well as what may be called some "performance anxiety," worrying about what kind of impression I would be able to make on him.

At Shantineketan

When we reached Shatinekatan, Sunil-da received us and lodged us at Santosh-da's house, where we also met Santoshda's wife, Laila. We came to know that, though a Hindu, she clung to this Muslim name in honor of a friend of hers from Dhaka Eden College, which she also attended. We could immediately realize how deeply secular both Sunil and Santoshda and their families were!

At Shantiniketan, I attended two sessions, with Amartyada playing the leading role. The first one was kind of a formal inauguration of the event, with fewer people, and held in a midsized room with everyone sitting on the floor on a cover (chadoa). Whoever was supposed to speak would rise up, speak, and then sit down. This arrangement was quite a contrast with what I was used to in Bangladesh, where inaugural sessions were usually larger events, held in bigger halls, with raised daises for guests and chairs for the remaining to sit, often with large sofas at the front for the special ones. The absence of any pomp and grandeur at the Shantineketan event was, therefore, striking. Nobody was in a suit and tie, and most were in plain white *dhuti* and *Punjabi*. Earlier, as we were waiting for the session to start, Binoy Krishna Sen, the second man (i.e., next to the Chief Minister Joyti Basu) in West Bengal's Left government of that time, arrived in a small Tata Ambassador car without any entourage. He, too, sat on the floor beside us. Ashim Dasgupta, the then Finance Minister of the West Bengal government and a former student of Amartya-da at Cambridge University, was present and served as the main respondent on the part of the government to the findings of the research that were presented at the event.

Those were the heydays of the CPM-led Left Front government, which came to power in West Bengal in 1977, and *Operation Barga*, launched in 1978, reached its conclusion in the mid-1980s. Under this *Operation*, about 1.5 million *bargadars* were registered. They received legal protection and were entitled to the due share of the produce. The mood on the part of the government was, therefore, one of success. However, as I understood, the research brought to light some shortcomings of the implementation of *Operation Barga* and the government's performance in the rural areas in general, and it made some recommendations for rectification and further action. Both Amartya-da and Sunil-da spoke, presenting their findings. Ashim Dasgupta offered a detailed response, and Binoy Krishna Sen made the concluding remarks. I was impressed by the gentlemanly way in which proponents of both sides spoke and also by their commitment to the rural working people. I also understood that this was mostly a within-Left dialogue, with the government obviously representing CPM, while Sunilda was probably reflecting the position of CPI, with whom he might have been connected. In addition, I could understand that there were some who had connections with CPI (M-L) and, hence, were more strident in critiquing the performance of the CPM-led government from a further Left perspective. However, these party affiliations did not come to the surface, and the discussion was very civil. Amartya-da, as usual, remained above the party-fray and stuck his gun firmly on objectivity.

At this inaugural session, I did not have a chance to introduce myself to Amartya-da and just saw him perform. Later on, as we were waiting for lunch, Amartya-da was missing. At the suggestion of whether we could start while Amartya-da took his time to join, someone quipped, "How can there be Hamlet with the Prince of Denmark absent!" Almost then, Amartya-da appeared on the horizon, riding his famous bike, which, as we now know from his Memoir, played an important part in his life at Shatiniketan during the years 1943-53 and is now on display at the Nobel Museum in Stockholm. It was this bike that he used to roam around not only for his academic pursuits but also to run the night school that he, along with his friends, set up for educating the children of the Adibashi villagers living on the outskirts of the Shatineketan. The bike proved very helpful for him in carrying the machine that he used to weigh the children for his research on their nutritional status. Amartya-da alighted from the bike like a young man. Almost six feet tall, he was as handsome as intellectually powerful. I thought that this was the time for me to introduce myself. Amartya-da recognized me as the student about whom Prof. Mosharaff Hossain had written to him earlier. I also introduced my late wife, Khaleda Nazneen, then a Research Associate of BIDS, who was with me. Khaleda was more outgoing than me, so she picked up the conversation and talked to Amartya-da more than I could! However, the ice was broken, and I was happy that I could become directly acquainted with the world-famous Bengali economist who hailed from, on his mother's side, Bikrampur, which happens to be my home district too!⁷ Amartya-da was very gracious and happy to see us coming from Bangladesh and joining this event.⁸

The other session of this event was a larger one, with more people attending and seating in a round-table format. More substantive discussions took place at this session, with the participation of many prominent economists of West Bengal, such as Bouydhayan Chattapadhaya and Asok Rudra. I mostly listened because, as I already mentioned, I did not have any prior knowledge of the project, its specific objectives, and its findings. However, at one stage, I saw a scope, and therefore, I asked a question. Amartya-da replied graciously, prefacing that it was a good question. Later, after coming to the United States for higher studies, I came to know that it was a polite gesture

⁷ I felt an additional common identity as Bikrampurians! (I saw no problem in this because as Amartya-da has taught us, people can have multiple identities or, put differently, there can be many sides of a person's identity!).

⁸ We of course did not disclose the somewhat perchance character of our presence at the event.

to be made even if the question was not a good one! Be that as it may, at that time, I was happy to hear that remark.

We didn't have any further opportunity to see and interact with Amartya-da during that visit to Shantinekatan. We returned with the happy memory of meeting the legendary person that Amartya-da already was; Sunil-da's unexpected invitation that made it possible; the wonderful hospitality of Santosh-da and Laila boudi; and last but not least, of the *roshogolla* that was served at the lunch of the event, the best *roshogolla* that I ever had!

Towards Harvard

As I didn't go back to the Soviet Union for the Ph.D. program and instead started teaching at Dhaka University's economics department in 1982, many of my well-wishers pressed me to go to a prominent Western university for a Ph.D. The late Prof. Mosharaff Hossain, my teacher and then colleague in the economics department, took a particular interest in my career development. Accordingly, he wrote about me to Amartya-da, who was then the Drummond Professor of Economics at Oxford. Amartya-da wrote a lengthy reply, which Prof. Mosharaff shared with me. I was pleasantly surprised by the warmth and affection that the reply displayed. It was as if I was known to him if not one of his kin! He explained in detail how the Margaret Thatcher government had cut the funding of the universities so that it was virtually impossible to get any funding for higher studies at Oxford. Despite this negative punch line, Amartya-da's letter generated very good feelings in me and invoked the tantalizing thought of whether I would ever be able to meet him in person and get close to him. The matter ended there, and I did not make any direct contact with Amartya-da about my Ph. D. Neither did I talk to him about it when we met him at Shatiniketan. In fact, I had ambiguous feelings at that time about going abroad for a Ph.D. and was more keen on publishing my books.

Soon, it so happened that my wife, Khaleda, got selected for a two-year Master in Public Administration (MPA) program at the John F. Kennedy School of Government of Harvard University. This prompted me to try my luck for admission to the economics department of Harvard University. I, therefore, sat for the GRE and sent out an application. At that time, I also came to know that Amartya-da had moved from Cambridge University to Harvard as the Lamont professor of economics and philosophy. I therefore thought that I might inform him about my application. Zvi Griliches, the wellknown empirical econometrician, was chairing the Ph.D. admissions committee of the economics department that year. Soon, I received a mail from Amartya-da containing a copy of the response from Zvi Griliches to his enquiry about the status of my application. It turned out that I was on the waiting list. I took it as good news and felt reassured that no matter whether my application succeeded or not, it would get more attention now that Amartya-da had enquired about it, adding, I am sure, some good words about me. Fortunately, at least one or more candidates from the main list dropped out, so I was ultimately offered admission. I, therefore, prepared to leave for Harvard, where my wife had already started her MPA program!

Though I got the admission, I was actually not well prepared for Ph.D. studies at Harvard. My knowledge of neoclassical economics was uneven. I took and did well in the first-year introductory courses on micro and macroeconomics that I took at Dhaka University. I also read Keynes' *General*

Theory, a copy of which I could buy from Ideal Library, the most prominent shop for English books, located on the second floor of Dhaka Stadium. However, I left for the Soviet Union in 1975, almost at the start of my second year of the Honors course. In the Soviet Union, I had the opportunity to study at Moscow State University (MSU), which was considered to be the best university in the Soviet Union. The incoming students to the Faculty of Economics of MSU used to be divided into two streams: "political economy" and "planning and cybernetics." Somehow, I got included in the political economy stream. This allowed me to have a deeper understanding of Marxist political economy but less of textbook neoclassical economic theory. Neoclassical economics, based on the marginal utility theory of value – considered to be the opposite of the marginal utility theory of value - was generally thought to be inappropriate for socialism and the Soviet economic system. There were, however, dissenting views, and Stanislav Shatalin and some of his colleagues later set up (within the Faculty of Economics) a new department called the Department of Marginal Utility! However, that was towards the end of my studies at MSU, so I did not have the opportunity to take courses from that department. The curriculum of the political economy stream included courses on statistics, linear algebra, and mathematical programming, but it did not include econometrics. Courses on multi-factor analysis, similar to econometrics, were, however, included in the curriculum of the planning and cybernetics stream. On the other hand, Economic History and History of Economic Thought figured prominently in the curriculum of the political economy stream, and I made use of the opportunity to specialize in the History of Economic Thought and write my Master's dissertation on the Austrian theory of value.⁹ This allowed me to go deeper into the relationship between the labor theory of value and the marginal utility theory of value. However, substantial gaps remained in my knowledge of neoclassical economic theory and econometrics. Therefore, after coming back, I knew that I should make efforts to fill up those gaps through self-learning. But I became so engrossed in research on the political economy and socioeconomic history of Bangladesh that I hardly had time for anything else.¹⁰

The above long-term challenge to my study at Harvard was compounded by some immediate challenges. The unprecedented 1988 flood submerged the airport, and my flight was cancelled. Furthermore, in response to the emergency, the government imposed a ban on foreign travel, and that ban apparently applied to university teachers, too. Thus, I had to wait until the flood water receded and I could get an exemption from the ban before I could finally leave for Boston.

At Harvard

By the time I arrived at Harvard, the Orientation program for the incoming Ph.D. students was over. So, I had no idea where to start and which courses to take. As I leafed through the book providing the list of courses offered in the 1988 Fall

⁹ The title was "Methodological Questions of Critique of the Austrian Theory of Value" (Islam, 1980).

¹⁰ This effort led to the two books that I mentioned at the outset $(\overline{\alpha})$ I also became engrossed with study of the origin and evolution of the villages of Bangladesh. This led me to a deep historical inquiry the results of which came out in the form of several

articles that were later integrated into (ইসলাম, ২০১১). A few other articles embodying the political economy studies that I did during 1980-88 are included in my book (ইসলাম, ২০১২) ৷

semester, I found a course titled "Hunger in the Third Word," offered by Amartya Sen. I thought that I must attend this course! As I sat and listened to Amartya-da's captivating lecture, I could also sense that this was probably not a course intended for incoming Ph.D. students. After the lecture ended, I went to the podium to say hello to Amartya-da. In response, he said, "You have also come!" I could sense that it was not exactly an appreciation for my joining his lecture but rather an expression of surprise at seeing me somewhere where I was not supposed to be! Soon, the situation became clearer, and I started attending graduate courses in micro, macro, mathematics, and econometrics. By that time, however, I missed the first lectures!

Very soon came a pleasant surprise. Amartya-da invited Khaleda and me to have lunch with him at the Harvard Faculty Dining Hall. It was an example of the way Amartyada treats people. While I had reasons to be grateful for his support, he thought that he needed to welcome us to Harvard. We were naturally excited because this would give us an opportunity to meet and talk to Amartya-da exclusively and in an informal setting, and that too in a place where, at any time, you could expect to find several Nobel laureates. During the lunch, Amartya-da inquired about how we had been settling down and whether we were facing any problems in doing so. While there, we also noticed how popular Amartya-da was among the Harvard faculty! A good number of them came up to say hello and talk to him. Amartya-da graciously introduced us to them, and thus, we met several outstanding Harvard professors of various disciplines.

Though both Khaleda and I were busy with our studies, we thought we should return the courtesy and invite Amartya-da for dinner at our place. We were then living in a Harvard-owned apartment near the campus.¹¹ I was not sure whether Amartyada would be able to make time, given his busy academic and social calendar. I was, therefore, pleasantly surprised when he readily agreed. Our happiness increased further when we saw that Amartya-da came with his entire family, including his companion at that time, the well-known philosopher Martha Nussbaum, and his daughter Indrani and son Kabir.¹² This showed that, instead of viewing our invitation as an obligation that he needed to fulfill with minimal effort, he treated it with warmth and respect. It made us very happy. I am not a good talker, so keeping up the conversation with one philosopher was enough of a challenge for me. Doing so with two outstanding philosophers made the challenge even greater. Fortunately, I had invited Dipen Bhattacharya, my fellow alumnae from Moscow State University, who was then doing his Ph.D. in astrophysics at New Hampshire University, not too far from Boston. Dipen is very knowledgeable and has a wide range of interests. With his participation and Khaleda's gregariousness, we had a nice evening with both good conversation and food. It remains a memorable evening for me.

Social Choice Theory

The graduate-level economics course that Amartya-da was offering at Harvard was on Social Choice and Welfare Economics. Among the various fields in which Amartya-da has made his mark, it is the Social Choice theory where his contribution has been the most significant. Ever since his friend

¹¹ It was on Shaler Lane near the Charles River.

¹² I already guessed then that Amartya-da named his son after the great folk philosopher and singer of Punjab who propagated Hindu-Muslim unity. His recent *Memoir* confirmed this guess and revealed a greater role that Punjab's Kabir played in the intellectual activities of Kshiti Mohan Sen, Amartya-da's maternal grandfather.

and fellow economics student at Presidency College in 1953, Sukhamoy Charavorty brought to his attention Kenneth Arrow's 1951 book, Social Choice and Individual Values (Arrow 1951), Amartya-da became engrossed by the subject.¹³ Kenneth's book was preceded by his 1950 article whose very title -- "A Difficulty in the Concept of Welfare" -- points to the close connection between social choice theory and welfare economics. As Amartya-da frequently reminds us, the origin of the social choice theory goes back to Borda (1781) and Condorcet (1785). However, for a long time, their works did not have much influence on the development of economics. Instead, welfare economics developed on the basis of the utility theory of Jeremy Bentham (1789), who had the cardinal view of utility and was interested in maximizing the total utility without caring much for its distribution among the members of the society. By the 1940s, under the influence of Lionel Robbins (1938) and others, the cardinal view of utility was discarded in favor of its ordinal view. Utilities were conceived as mental states reflecting pain and pleasure, and any particular person's mental state was considered too inscrutable to be compared with another person's mental state so that inter-person comparability of utility was ruled out. Welfare maximization in terms of total utility was now not possible, and instead, refuge was sought in the concept of Pareto optimality, under which an outcome was considered to be optimal if an increase in the welfare of any one member of the society required its decrease for at least one of the remaining. It is easy to see that under this construct, considerations of redistribution became even more difficult to introduce.

¹³ As Sen himself noted in his *Memoir*, it was "an intellectual discovery ... which would influence the direction of my work through much of my later life (Sen, 2021, p. 203)."

Arrow (1950, 1951) revived the social choice problem, proceeding from the assumptions of impermissibility of interperson comparison of utility and accepting the principle of Pareto optimality (Pareto, 1906). He examined the possibility of having a social choice mechanism that could produce consistent social decisions provided certain mild conditions of reasonableness were satisfied. His answer was negative and, hence, the rise of the Impossibility Theorem. The scope of Arrow's theorem was wide and covered a wide range of issues and social decision mechanisms. The task of welfare maximization for society using individual members' utility rankings in the absence of interpersonal comparison was analytically similar to making social choices through voting, as pointed out by Sen in his Nobel lecture (Sen, 1998).

It was difficult for Amartya-da to let Arrow's Impossibility Theorem pass. It was already hard for him to be content with Pareto optimality, which, by limiting the role for redistribution, also undercut the rationale for social activism and public action. It is not by serendipity that Amartya-da later wrote the paper "The Impossibility of a Paretian Liberal" (Sen, 1998) to show that an adherent of Pareto optimality had to end up being an illiberal. Amartya-da's first-hand experience of the 1943 famine made it difficult for him to accept the requirement that no redistribution could be advocated because of the incomparability of utility across individuals. Now Arrow's theorem extended this nihilism to a wider arena so that even the possibility of democracy became suspect. Yet, like many of his compatriots, Amartya-da was expecting the newly independent India to have a thriving democratic system, producing progressive social decisions.

Undermining the rationale for activism was a threat to Amartya-da's view of himself as an activist. After all, even as a school student, he took the initiative, with his friends, to set up a night school for the *Adibashi* children, as I already mentioned. His switch from mathematics to economics as his main subject of study at the Presidency College was also driven by his desire for activism. As he informs in his *Memoir*, "I had a growing recognition that economics would be much more useful to me given my social interests and political involvements. I was already harboring the idea of working for a different kind of India – one not as poor, not as iniquitous, and not at all as unjust as the country around me. Knowing some economics would be vital in the work of reshaping India (Sen, 2021, p. 193)."

Furthermore, as we know from Amartya-da's Memoir, visiting his many uncles behind bars under the British Preventative Detention Order was an important part of his childhood. Some of them, such as his maternal uncle Satyen Sen, the founder of the progressive cultural organization Udichi, belonged to the Communist Party, while others belonged to the Congress. However, they were all enduring and accepting the sacrifices, hoping to produce better social outcomes (such as independence or the end of exploitation). His Shidhu kaka's (Jyotirmoy Sengupta, his father's cousin) story is more valiant and also tragic. Even Amartya-da's mother, Amita Sen, an accomplished dancer in Tagore style and actress in Tagore plays, was an activist, as much as was possible during those days. She had strong sympathies for leftist politics, was curious about Marxism, and edited two journals, in part, to bring about positive changes in society.

It was, therefore, difficult for Amartya-da to accept that all their efforts and sacrifices were in vain because consistent social choices could not be made based on individual preferences if the choice procedure had to satisfy certain requirements. Sacrifices made by his uncles and many others whom he knew also made it difficult for him to accept material interest as the sole driver of human actions. To prove the point, he later wrote the paper "Rational Fools" (Sen, 1977), showing that human actions that may seem irrational from the perspective of material interests can be quite rational for people who are motivated by other considerations. Amartya-da, therefore, had to, if not overturn, then at least loosen the straightjacket that Arrow's Impossibility Theorem had imposed on the social choice theory and undercut the rationale for activism and public action aimed at democracy, economic and social equity, and other progressive causes.

A second reason why Amartya-da became so engrossed with the Impossibility Theorem was his passion for mathematics. As we noted, he was thinking of studying mathematics at Presidency College until he was persuaded by Sukhamoy - who also shared Amartya-da's interest in politics and activism. However, his love for mathematics did not go away with his decision to switch to economics. In fact, in persuading Amartya-da to switch from mathematics to economics, Sukhamoy pointed out that economics also provided enough scope for applying mathematics. After all, by that time, they had already gone through Samuelson's (1947) Foundations of Economic Analysis. The "axiom-proof" mathematical format that Arrow used for establishing his Impossibility Theorem provided Amartya-da the ideal ground to deploy his formidable mathematical prowess. His mission of activism, combined with his passion for mathematics, made the Impossibility Theorem

the prime focus for much of Amartya-da's subsequent intellectual activity. Unlike others who were put off by the pessimism of the Impossibility Theorem, Amartya-da saw it as an invitation for a "constructive program of developing systematic social choice theory that could actually work (Sen, 1998, p. 181)." No wonder he titled his Nobel Lecture as "The Possibility of Social Choice" (Sen, 1998).

Unfortunately, Cambridge University at that time did not provide a very congenial environment for work on social choice because hardly any of the faculty members was interested in this topic. It was at Delhi School of Economics, where he moved in 1963, that Amartya-da could develop a group of teachers and Ph.D. students who were eager to follow Amartya-da to work on social choice theory. Foremost among them was Prashanta Pattnayak.

In order to understand whether Arrow's Impossibility result could be modified, it was necessary to clarify the role of the different axioms in producing this result. Accordingly, Amartya-da's initial papers on social choice theory focused on the role of the axioms that Arrow had used for this analysis. Soon, it was clear that it was the assumption of "inter-person incomparability" that was the main source of various impossibility theorems. Amartya-da showed that assuming utilities to be cardinal did not help to get out of the impossibility result. On the other hand, the impossibility result can be avoided even with ordinal utility if interpersonal comparability is allowed.¹⁴

¹⁴ Amartya-da's sustained work extending over several decades helped to develop Social Choice as an attractive field of economics and to steer it away from the sterility of an Impossibility result and instead

Amartya-da, therefore, directed his attention to finding ways in which reasonable interpersonal comparability can be introduced. He showed that "interpersonal comparisons of various types can be fully axiomatized and exactly incorporated in social choice procedures (through the use of 'invariance conditions' in a generalized framework, formally constructed as 'social welfare functionals' (Sen, 1998, p. 188)." He showed that full comparability was not needed to arrive at positive results. Instead, *partial* comparability was enough to reach consistent social choices in many particular cases. Thus, Amartya-da created the space for both redistribution and public action in the discussion and practice of social choice.

Capability, Functionings, and Development as Freedom

However, soon, Amartya-da drew our attention to the fact that it was enough to allow discussion of the distribution of *income*. Instead, it was necessary to go beyond income and consider the "capability" of individuals (Sen, 1985). It is not difficult to see a parallel between this proposition and his earlier proposition to go beyond purchasing power and to examine "entitlement." Amartya-da noticed that it is not income *per se* that people need. Instead, they need income to carry out certain activities ("functionings") that are necessary for their wellbeing. However, the capacity to convert income into

convert it into a fertile field allowing the possibility of positive outcomes. In fact, as Amartya-da explained in Nobel lecture, the impossibility result was the outcome of the final restrictive assumption that was put on the social choice construct, and hence it is not unexpected that short of imposing that final restriction, it should be possible to obtain many positive outcomes. Amartya-da made it clear what that last restriction was and how a reasonable process of social choice can proceed even without it.

functionings may differ across individuals. In the process, Amartya-da also expanded the concept of "development" and redefined it as "freedom" (Sen, 1999). According to him, the goal of development is to enable people to have the freedom to realize their potentialities to the full by carrying out the functionings that are necessary for this purpose. In Amartyada's redefining development as freedom, one can see some reflection of Marx's desire – expressed in his 1944-47 writings – to see people not tied to a particular type of labor imposed by the prevailing economic and social division of labor. Instead, Marx hoped for the day when people would be free to engage in whatever varied types of activities (functionings) that they would like to engage in to realize their full potentialities (see Fromm, 1961; (ইসলাম, ২০১৯).

As we know, Amartya-da is not only an economist but also a philosopher. Just as he engaged himself with Arrow's impossibility theorem, he also did so with Rawls's theory of justice. Rawls used the "veil of ignorance" construct to argue for the fairness of the market outcome. He thought that if people did not know what their respective positions would be in the initial distribution of assets, they would agree to the market mechanism as the way in which these assets could be used and the outcome it would produce. However, Rawls did not leave it entirely to the market. He allowed for the "Difference Principle" and argued that there were certain "primary goods" that needed to be assured to people who otherwise – going by the market outcome alone - would remain deprived of them. Raws also argued for equality of opportunity. He also included liberty as one of the requirements. Amartya-da appreciates the Rawlsian Difference Principle but advocates its expansion to the broader concept of capability and freedom (Sen, 2010).

Multifaceted Identity

Amartya-da is pained to see murderous conflicts that people and nations engage in on the basis of perceived identities. He notices that the sense of identity leading to violence is often politically manufactured. For example, he notices that even in the 1930s, Hindus and Muslims in Bengal were living peacefully, and yet by the 1940s, they were killing each other because of their respective religious identities. Amartya da draws attention to the fact that the identity of each person is multifaceted, and it is inappropriate to reduce it to a particular dimension only (Sen, 2006). For example, he notes that the people in Bengal can be both a Bangalee and a Muslim or a Hindu. No particular dimension of identity needs to be absolutized.

The multifacetedness of identity also shows that there will be no end to conflicts as long as people are viewed on the basis of this or that aspect of their identity. The recent conflicts between Russians and Ukrainians – who are Slav brothers and sisters – and between the Muslims and Jews – who are cousins and descendants of Abraham – show how problems can become intractable when a particular dimension of the identity triumphs over the rest. Hence, what is necessary is to view people as humans. The salvation can be found only in humanism, under which all the particular dimensions of identity can be subsumed under the common fact that we are all humans. Just as Rabindranath was, Amartya-da, too, is a humanist, though there are differences between the two regarding the concrete application of the humanist stand in specific cases. In Amartya-da's emphasis on humanism, we can also see reflections of Marx's 1844-47 writings, where he too expressed the dream of seeing people of all countries and continents coalesce as humans. In predicting such a future, Marx even speculated about the emergence of a common language (see Fromm, 1961; ইসলাম, ২০১৯). (One wonders whether we should see the Google Translation facility as a step in that direction!)

High Hopes for Bangladesh and Great Appreciation for Bangabandhu

In view of his views regarding the multifaceted nature of identity, it is not surprising that Amartya-da has high hopes regarding Bangladesh and great admiration for Bangabandhu. He makes the insightful observation that the Permanent Settlement introduced by the British in 1793 also created the socio-economic basis for the aggravation of religion-based identity by creating a class of Hindu Zamindars lording over the toiling Muslim peasants, particularly in East Bengal. Accordingly, in his view, the abolition of the Zamindary system through the implementation of the East Bengal State Acquisition and Tenancy Act (EBSATA) in 1950 removed the constraint that previously prevented A. K. Fazlul Huq from actualizing his true secular self and created the possibility for a secular movement to develop, uniting people of all religions. However, the conversion of this possibility into a reality was not guaranteed. Instead, it required "constructive political cultivation" with "far-reaching and affirmative action." Amartya-da is happy to see that this is what Bangabandhu accomplished through his extraordinary leadership (Sen, 2021, p. 132).

Amartya-da also appreciates the economic and social progress that Bangladesh has made so far. For a long time, and before anybody else did, he pointed out that Bangladesh was ahead of India in terms of many social indicators, particularly regarding gender equality and women's progress. He hopes that Bangladesh will uphold the principle of secularism, enshrined in the country's Constitution as one of the four state principles and make further progress on the basis of solidarity among all people living in Bangladesh.

Activism

Despite his vigorous intellectual activity, pushing the world frontier of knowledge in several important directions, Amartyada never moved away from being an activist that he had shown himself to be even as a school student at Shantineketan. He did not become a captive of the ivory tower and did not give up the fight for social justice. Instead, he took the fight to the ivory tower and fought it there successfully. People around the world fighting for social justice have good reason to be grateful to him for that feat. To be fruitful, the fight for social justice at the ground level needs to be complemented by a fight in the realm of thought and theory.¹⁵ Amartya-da, a self-declared Leftist, has been carrying on that fight in the arena of social choice theory and in many areas of theory almost single-handedly. This also explains his particular concern for communicating to the wider public the message of the "possibility" of social choice practical ways in which it can be carried out. He and characterizes this concern as almost an "obsession" on his part (Sen, 1998, p. 184).

¹⁵ See Sen (1973) for his profound discussion on inequality and ways to overcome it.

However, Amartya-da's activism did not remain confined to the realm of theory. For example, he took an open position against the communalistic thoughts, policies, and measures of the Modi government. Inspired by his grandfather Kshiti Mohan Sen, Amartya-da himself became proficient in Sanskrit and studied Indian classics, beginning with the Vedas down to the Chandi Mangal. Like Kshiti Mohan Sen, Amartya-da too has a deep understanding of the Indian society and culture as multi-racial, multi-ethnic, and multi-religious (Sen, 2005). He is therefore pained by the recent efforts at negating this historical fact and imposing the pseudo theory of *Hindutva* that is divisive and alienating. He saw in these efforts another example of politically manufactured aggravation of conflict through the absolutization of one dimension of the Indian identity, namely religion. Seeing the retrogression, Amartya-da did not hesitate to come out openly against these policies and moves.

Amartya-da's open and vocal position in this regard led to considerable ire from the Modi government, which started to vilify and harass him in many ways. Thus, it removed him from the position of Chancellor of the Nalanda University, which was founded in 2010 as an international university (with support from 18 countries), befitting of the international character that Nalanda *Mahavihara*, the ancient Buddhist center of learning, had when it was founded in 427 BC and functioned till 1197 CE.¹⁶ As we know, Nalanda *Mahavihara*

¹⁶ Befitting the international character of the original Nalanda University (*Mahavihara*), the effort to resurrect it was also an international initiative, supported by 18 countries. The idea of the new Nalanda University was endorsed by the 2^{nd} and 4^{th} East Asia

("world's oldest university") figures prominently in Amartyada's discussion as an example of the role that Buddhism played in the development of Indian society and culture; of the early beginnings of higher learning in India; of a global center of enlightenment and learning, drawing students and scholars from many countries of the world; of tolerance of multiple views; and of an institution that promoted "government by discussion."¹⁷ The resurrection of Nalanda was a dream that Amartya-da had since his childhood, and, unsurprisingly, he was the prime mover of and played the central role in the founding of Nalanda University. His removal from the Chancellor post was, therefore, a deplorable act.

Recently, the Modi government stooped to such low levels as to question the ownership of a part of the land on which Amartya-da's ancestral house is located in Shantineketan. However, these deplorable and often below-the-belt attacks have not deterred Amartya-da from his position and he continues to advocate for the secular character of Indian society and culture.

Amartya-da's activism extends further to even more ground level. He was already conducting action-oriented research using *Protichi*, an organization bearing the name of his house at Shatineketan. Following his receipt of the Nobel Prize,

Summit, held in 2007 and 2009, respectively, and was established by an Act of the Indian Parliament in 2010. Amartya Sen was the prime mover of this initiative and played a crucial role in getting it started. ¹⁷ See Sen (2021, pp. 105-109) for his discussion of the ancient Nalanda *Mahavihara* and its resurrection in the form of the Nalanda University. It may be mentioned in this connection that Amartya-da has deep reverence for Gautam Buddha and his thoughts and teachings. In fact, while at Shantinekan school, he tried to have Buddhism as his religion but was not allowed to do so.

Amartya-da donated the money award to *Protichi* and extended its orbit to Bangladesh, where its activities are looked after by his "closet life-long friend," Prof Rehman Sobhan. Thus, Amartya-da has remained an activist, and his activism extends to several levels, across two countries and covers a wide range of issues.

Lion Who Defies Winter

After an incomplete and broad-brush detour into Amartyada's intellectual contributions, focusing on how they are connected with his activist background and the kind of person he is, let me now finish the personal story with which I started this lecture. Unlike Siddiqur Rahman Osmani, one of the brilliant economists of Bangladesh, who did his Ph.D. thesis in the area of social choice theory under the direct supervision of Amartya-da, I didn't do so. This was because, as I noted earlier, I went to Harvard mainly to overcome my deficiency in neoclassical economic theory and econometrics. I, therefore, chose macroeconomics and econometrics as my fields of specialization and ended up writing a dissertation focused on the application of panel data econometrics on macroeconomic topics, including that of economic growth.¹⁸ I, therefore, could not have the kind of close intellectual interaction that, as a Ph.D. student, Osmani bhai has with Amartya-da. I attended some of his social choice lectures, but I did not take the course for credit because I wouldn't be able to devote the necessary time to it. I envied Stephan Klassen, my fellow student at Harvard, who took social choice as his field and wrote his

¹⁸ I ended up writing the dissertation under the supervision of Dale Jorgenson, Gary Chamberlain, and Guido Imbens. Both Jorgenson and Chamberlain have passed away but I was happy to see that Guido Imbens succeeded in sharing the Nobel Prize in economics in 2021.

dissertation under Amartya-da's supervision and later collaborated with him.¹⁹

Since Amartya-da was not my thesis supervisor, I did not try to meet him that often. I knew that it would be inappropriate for me to tax his time if I did not have something substantive to discuss.²⁰ Nevertheless, we often met socially, and visits by his friend Prof. Rehman Sobhan would give rise to additional occasions to meet. Amartya-da would always be cordial, friendly, and gracious.

After finishing my Ph. D. in 1993, I worked at the Harvard Institute for International Development (HIID) and taught at the economics department for a while as a lecturer. In 1997, I joined the economics faculty of Emory University and left for Atlanta. Around the same time, Amartya-da moved back to Cambridge University to become the Master of Trinity College (his Alma Mater). In 2004, to focus on my research on China's transition to the market economy, I left for Japan as a Research Professor at the Asian Growth Institute (AGI) and as a Visiting Professor at Kyushu University²¹. Because of the distances, I was not in close connection with Amartya-da for a long time.

However, after I joined the United Nations and took up residence in New York in 2006, it was again possible to reconnect with Amartya-da, who, by that time, was also back to Harvard University as the University Professor of economics and philosophy. I often sent him copies of my publications, not so much expecting him to read them as to show that I was

¹⁹ Unfortunately, he passed away prematurely.

²⁰ However, Amartya-da was one of the members of the three-member board that I had to face at the end of the course work to qualify to start the work on the Ph.D. dissertation.

²¹ My research at AGI led to the publication of two books (Islam 2009 and 2016b).

trying to live up to the expectations he and Prof. Mosharaff Hossain had regarding me. I wanted him to know that my 1995 *Quarterly Journal of Economics* paper pioneered the application of panel econometrics to the empirical study of growth and has turned out to be one of the most cited papers in this field. I wanted him to know that I offered probably the most extensive critiques of Jeffry Sach's Big Bang theory, which caused considerable harm to the Russian economy as it was trying to transition from a centrally planned to a market economy. I also wanted him to know that I offered a new conceptual framework for the discussion of river-related policies.

In sending a copy of my book, *Rivers and Sustainable Development* (Islam, 2020), I had considerable hesitation because while I knew that Amartya-da had interests in both growth theory and economic transition, I was not sure whether he had any interest in river issues. Later, I was pleasantly surprised to see that he devoted a whole chapter to "The Rivers of Bengal" in his *Memoir* and offered a fascinating and insightful discussion of the Bengal's rivers, their role in Bengal's economic prosperity in pre-colonial times, and the reflection of rivers in Bangla literature. He also narrates his extensive exposure to Bengal's rivers through both his journeys using river routes and also his month-long stays in rivers on a houseboat in summer during his boyhood in Dhaka.

Though UNDP's Human Development Report was closely connected with Amartya-da's thinking on capability, at UN DESA, where I headed the research branch, we also made significant use of Amartya-da's theories regarding capability and identity. I tried to inform him about these uses, too.

Whenever I visited Cambridge, Amartya-da would be gracious to try to find time to meet me and catch up. In the autumn of 2016, following the publication of my book, Governance for Development: Political and Administrative Reforms in Bangladesh (Islam, 2016a), the South Asia Institute of Harvard University invited me to present a seminar on the book. I informed Amartya about the event and my coming to Boston. He immediately responded by saying that he would have certainly attended the seminar, but he had a very important meeting on that day in New York. However, he invited me and my wife and daughter to have lunch with him the next day. Accordingly, we met at Harvest, a popular eatery on the Brattle Street.

I was seeing Amartya-da after a long time and noticed that time had taken a toll on him just as it had done on me, too (something he probably also noticed). I observed that though Amartya-da did not require a stick to walk, he needed to rest his hand on something if he had to remain standing for a while. He was still serving as a full-time professor at Harvard, discharging all the associated responsibilities.

Amartya-da was meeting my wife Tanvira, a practicing psychiatrist, for the first time. As is characteristic of him, to be respectful of people irrespective of position and age, he started addressing her with "Apni," and I had to dissuade him from doing so. He also tried to talk up our daughter, Nusy, who is too shy to talk in such circumstances. We had a nice conversation, catching up with events at global, sub-continent, West Bengal, and Bangladesh levels. His prodigious memory found reflection in all that we talked about. He described from his memory of scores of years ago the scenery of the route that we took to drive from New York to Boston more vividly than I could do from my memory of just two days ago!

Amartya-da was, of course, keenly following the great change that had occurred with the collapse of the regimes in the Soviet Union and the East European countries. He wondered whether the Left parties of the subcontinent were able to fathom the sea-change that had occurred, commenting that "ওরা বুঝতে পারছে না কী হয়ে গেল!" ("They are not realizing what a profound change has occurred!)

As the time came to end the lunch, I presented Amartya-da a copy of the book that was the object of discussion at the Harvard seminar. In addition, I gave him a copy of another book –*Economies in Transition: China, Russia, and Viet Nam* -- that also came out in 2016 (Islam, 2016b). As we stood to part, I realized that it was foolish on my part to impose on him several books as presents because I could see that it would be difficult for him to carry them. I urged repeatedly to walk with him to his house (also located at Brattle Street) so that I could carry the books for him. However, he was insistent on managing the load and walking to his home by himself. We, therefore, lingered for a while not knowing what to do. As I looked on, he was walking home, albeit with some difficulty, and I saw a lion who defied winter through his tremendous intellectual as well as physical efforts.

So, Happy birthday to you, Amartya-da! We are proud to have you as our compatriot. We wish you many more years of productive life. The world will have to wait for a long time to have another person who combines such exceptional intellectual ability with human qualities and commitment for common people as you do. Your Shidhu kaka was unhappy that Rabindranath gave you such a "tooth-breaking name"! He did not know how true this name would prove to be. You will remain immortal not only through your work but also through the knowledge that will pass on through generations about what a wonderful a person you are!

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During his long teaching career, Islam taught economics at Dhaka University, Harvard University, Emory University, Kyushu University, and St. Johns University. Through his research, he made his mark in several areas of economics, including the economics of growth, transition, development, and environment. He has published twenty-one books and numerous articles in reputed international journals.

Islam's articles on economic growth and productivity are compiled in Growth and Productivity across Countries (2016). His books on economic transition include Resurgent China: Issues for the Future (2009); পুঁজিবাদের পর কী? (২০১৪); Economies in Transition: China, Russia, Vietnam (2016); অক্টোবর বিপ্লব থেকে চতুর্থ শিল্প বিপ্লব ও সাম্যবাদের তবিষ্যৎ (২০১৯).

Much of Islam's research focused on Bangladesh's development issues. His books on this subject include বাংলাদেশের উন্নয়ন কৌশল প্রসঙ্গ (১৯৮৪); বাংলাদেশের উন্নয়ন সমস্যা (১৯৮৭); বাংলাদেশের আম: অতীত ও ভবিষ্যৎ (২০১১); আগামী দিনের বাংলাদেশ (২০১২); Governance for Development: Political and Administrative Reforms in Bangladesh (2016); বঙ্গবন্দুর বপ্ন ও বাংলাদেশের আম (২০১৭).

In recent years, Islam devoted more attention to Bangladesh's water development issues. His books on this subject include Let the Delta Be a Delta: The Way to Protect Rivers of Bangladesh (2016); Rivers and Sustainable Development (2020); Water Development in Bangladesh: Past, Present, & Future (2022); A Review of Bangladesh Delta Plan 2100 (2022); বাংলাদেশের পানি উন্নয়ন: বর্তমান ধারার সংকট এবং বিকল্প পথের প্রত্তাব (২০২৩).

Islam is the founder of Bangladesh Environment Network (BEN) and the initiator of Bangladesh Poribesh Andolon (BAPA).



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