ATOMS FOR AUTONOMY: EXPLAINING THE CUBAN REACTION TO THE CHERNOBYL NUCLEAR ACCIDENT

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On August 25, 1986, the Cuban daily newspaper Granma published an exchange of letters between Cuban president Fidel Castro and American congressman Michael Bilirakis. Bilirakis wrote that he had learned of Cuba’s plan to build a nuclear power plant with Soviet aid, and urged Castro to “take precautions against a repetition” of the Chernobyl disaster, which had occurred just six days earlier at a Soviet-built plant in Ukraine. “Millions of people from your country and mine could be affected by a radiation leak like the one at the Chernobyl plant,” he warned.

In his reply, Castro defended the Cuban project, asserting that neighboring countries should not fear a nuclear accident in Cuba. “No nuclear power plant in the United States has the security or the number of highly qualified engineers, technicians and workers as ours,” he emphasized. On the subject of Chernobyl, he remained silent.

A contemporary reader might interpret Castro’s silence to mean that he was either unaware of the deadly consequences of Chernobyl or indifferent to them. Neither is true. The Cuban government understood the damage unleashed by the Chernobyl accident but refused to halt its efforts to bring nuclear energy to the island. In 1990, Cuba’s contradictory behavior became even more pronounced when the government launched a program to bring children from the Chernobyl disaster zone to receive medical treatment in Cuba. By offering to treat tens of thousands of victims, Cuba was implicitly acknowledging the devastation caused by the Chernobyl nuclear accident. Yet, at the same time as the Cuban government converted the beach of Tarará into a medical complex for Soviet patients, construction on twin nuclear reactors near the village of Juraguá on the island’s southern coast steamed ahead. Paradoxically, the Chernobyl accident had a negligible impact on Cuba’s plans to build its own nuclear power plant.

In this paper, I examine Cuba’s response to the Chernobyl nuclear accident. Why did the Cuban government launch a massive medical aid program for the

1. Editor’s Note: This essay was awarded Third Prize in the ASCE 2020 Student Paper Award Competition for Graduate Students.
2. The official Ukrainian spelling is “Chornobyl.” I use the traditional Russian spelling “Chernobyl,” as this appears more commonly in references to the plant and the historical event. All translations to English are my own.
5. Before the collapse of the USSR, patients arrived from various Soviet republics. Most came from Ukraine, with smaller numbers from Belarus, Russia, Moldova, and Armenia. In the post-Soviet period, almost all patients were Ukrainian. “Los niños de Chernóbil en Cuba: Una historia no contada (IV),” Cubadebate, July 17, 2019, http://www.cubadebate.cu/especiales/2019/07/17/los-ninos-de-cher-nobil-en-cuba-una-historia-no-contada-iv/.
victims of Chernobyl while simultaneously advancing construction on a Cuban nuclear power plant? What does this behavior reveal about Cuba’s perception of its role in the world? How does the Cuban case shed light on the significance of nuclear energy for developing countries?

This paper is divided into seven sections. The introduction provides a glimpse into Cuba’s contradictory response to the Chernobyl disaster. The second section outlines the existing scholarship and my approach to the topic. The third features a brief historical account of the 1986 Chernobyl accident and examines the Cuban reaction. The fourth and fifth sections describe the Juraguá Nuclear Power Plant and the “Children of Chernobyl” program. The sixth section reveals why these two projects are not contradictory, if one considers them from the perspectives of Cuban autonomy and prestige. Finally, the conclusion explains how this paper contributes to a more nuanced understanding of Soviet-Cuban relations, Cuban national self-perception, and the factors that inform developing countries’ nuclear aspirations.

LITERATURE AND METHODOLOGY

Although the Cuban nuclear program and the Cuba’s medical aid to the victims of Chernobyl received significant media coverage, historians and social scientists have turned their attention elsewhere.

In “Nuclear Power in Cuba after Chernobyl,” Jorge Pérez-López writes that “the impact of the Chernobyl accident on the Cuban nuclear power program appears to be marginal.” Pérez-López’s article was published in 1987, only one year after the accident. In hindsight, I find that Pérez-López was largely correct. By the time of the Chernobyl accident, Cuba had already invested significant financial resources in its nuclear power program and was loath to give it up. But there are two other reasons why Cuba turned a blind eye to Chernobyl: abandoning the Juraguá reactors would not only cut off Cuba from the prestigious club of developed nuclear powers, but it would also imply that Cuba was vulnerable to repeating the Soviet mistake.

Cuba’s medical aid program for the children of Chernobyl was the largest of any country. John M. Kirk addresses the policy in his 2015 book Healthcare Without Borders but does not provide a systematic analysis of the politics undergirding it. He explains the Cuban government’s motivations as “humanitarianism,” dismissing what he calls “simple questions of geopolitics.” I challenge Kirk’s simplistic view of Cuban altruism. In devoting millions of dollars to these ailing children, Cuba was certainly doing a good deed; but that does not mean that it had nothing to gain politically.

No scholar has analyzed the connection between Cuba’s nuclear power plant and the “Children of Chernobyl.” This paper begins to fill the gap in the literature.

My analysis relies chiefly on articles published in Granma, the official newspaper of the Central Committee of the Cuban Communist Party, which I obtained from the Harvard University microfilm collection. Using the Granma Archives Index of the Latin American Network Information Center, I created a comprehensive database of 113 articles about the Chernobyl disaster, the Juraguá Nuclear Power Plant, and the Children of Chernobyl program. My primary method of analysis was qualitative: I read each article and searched for themes in language and content. I also performed two types of quantitative analysis. First, I gauged the importance Granma ascribed to each article by noting the page it was print-
ed on and whether it appeared above or below the fold. Second, I recorded the number of articles published on a given topic over time. I supplemented these articles with recent pieces published on Granma’s online platform and interviews I conducted in Havana in 2019.

THE CHERNOBYL DISASTER AND THE CUBAN REACTION
On April 26, 1986, a reactor at the Chernobyl Nuclear Power Plant exploded, triggering the worst nuclear accident in history. Citizens from the nearby town of Pripyat were evacuated, but not until 36 hours after the accident began. The Soviet government was initially hesitant to inform the international community about what had occurred, but on April 28 it published a brief press release. Despite Soviet efforts to minimize the accident, word spread globally.

Cuba’s reaction to the Chernobyl accident was muted. On April 29, 1986, Granma reprinted a three-sentence-long announcement from the Soviet state news agency, explaining that an accident had occurred, and that the situation was under control. Over the next two months, Granma parroted Soviet media that downplayed the severity of the accident. On May 9, Granma’s foreign correspondent in the USSR wrote that “the Chernobyl accident was not a nuclear explosion, but rather a failure in the plant.” Another article condemned the way in which Western countries “circulated propagandistic rumors … for the sake of their … aggressive anti-Soviet policy.” Of the seven articles published in Granma in 1986 that make reference to Chernobyl, five appeared on pages five and six, buried within the newspaper.

Most Cubans were not aware of the true scale of the accident. “Nobody understood the dimension of it,” said Mariana, a Cuban philosophy professor. Juan was studying engineering at a university in Kyiv, Ukraine, when the reactor exploded. When he returned to Cuba for the summer holiday, he underwent a series of medical tests but was never fully informed about the consequences of the disaster. Juan described that time as a “dark chapter” in his life.

The Cuban government did not want to call attention to what had happened. For many years, Cuba had preached the virtues of nuclear energy for electricity generation. If people learned the true magnitude of the Chernobyl accident, they might oppose Cuba’s own nascent nuclear energy program. This explains why the Cuban government similarly downplayed the 1979 nuclear accident at Three Mile Island Nuclear Generating Station in Pennsylvania.

In the Chernobyl case, it was especially important for the Cuban government to limit causes for alarm. The Three Mile Island accident was arguably the result of the negligence of Cuba’s greatest adversary, but Chernobyl was the fault of its staunchest ally. Even more worrisome was the prospect of damaging the Cuban government’s own credibility. After all, Cuba had consistently praised the Soviet nuclear program. In a statement published just one year before the Chernobyl accident, a Granma reporter asserted that “[the Soviets] do not fear the myth of an ‘accidental

9. Content a newspaper publisher deems most important is usually printed on the front page, and more prominent stories are placed on the top half of the page, or “above the fold.”
14. José Gabriel Guma, “Ratifican en URSS que accidente de Chernóbil no fue una explosión nuclear sino una avería en la planta y que la situación sigue normalizándose,” Granma, May 9, 1986.
16. Name changed to provide anonymity. Interview with Cuban philosophy professor by author in Havana, July 7, 2019.
17. Name changed to provide anonymity. Interview with Cuban engineer by author in Havana, July 25, 2019.
nuclear explosion,’ because they know that … that would be impossible.”

THE JURAGUÁ NUCLEAR POWER PLANT

Under a 1976 bilateral agreement, the USSR agreed to provide financial and technical aid to Cuba to build two 440-megawatt VVER light water reactors in Juraguá, near the Cuban city of Cienfuegos. In 1979, the Cuban government established the Atomic Energy Commission of Cuba (CEAC), headed by Soviet-trained nuclear physicist (and Fidel Castro’s eldest son) Fidel Castro Díaz-Balart.

Construction on the first reactor began in 1983 and quickly accelerated. By June 1985, 5,000 construction workers from all across the island and from other socialist bloc countries were employed at the plant. The Cuban government also commissioned the construction of apartment buildings to house the thousands of engineers and technicians who would work at the plant. This new settlement was christened “The Nuclear City.” The Juraguá project came to be known throughout the island as La Obra del Siglo, or “The Project of the Century.”

The Chernobyl accident damaged the credibility of nuclear energy worldwide—but not in Cuba. In 1987, Pérez-López wrote that “Chernobyl does not seem to have affected the long-term commitment of the Cuban government to nuclear power.” Just two weeks after the accident, Granma published a front-page story announcing that Cuba had signed a contract with the Soviet firm Atomenergoexport for equipment and materials for the Juraguá plant. Figure 1 shows the trend in the number of articles published in Granma about the Juraguá plant. If the Chernobyl accident had motivated the Cuban government to reconsider its plans for Juraguá, then one would expect to see a decrease in articles about the plant after 1986. With the exception of 1988, when construction on the plant had stalled, there were 10 articles published about Juraguá in each of the years between 1985 and 1989. The Chernobyl accident is not associated with a decline in media coverage of Juraguá.

When the Soviet Union collapsed in 1991, financing for the project dried up. Soon, the U.S. began to ramp up pressure on Cuba to abandon its nuclear ambitions. The drama continued when Fidel Castro fired his son Fidel Castro Díaz-Balart from his post as head of the CEAC. “He was fired for being inefficient,” said Castro in an interview with an Uruguayan newspaper. “There is no monarchy in Cuba.”

Finally, on September 5, 1992, Castro announced the “the temporary halt of construction on the Ju-

22. Castro and Bilirakis, “Cartas intercambiadas por el representante norteamericano Michael Bilirakis y Fidel sobre la electronuclear de Cienfuegos.”
25. Ibid.
27. Fernando Dávalos, “Firmado el contrato general por los suministros completos de equipos y materiales de la central electronuclear de Juraguá,” Granma, May 9, 1986.
raguá nuclear power plant,” explaining that the measure was “painful, but inevitable.”

Cuba simply did not have the money or the political will to continue. The project was a “graveyard of money,” said Juan Sánchez Monroe, former Cuban ambassador to Serbia. There is no evidence that the Chernobyl accident had a direct impact on Castro’s decision to pause the project. Nevertheless, the Chernobyl accident may have had an indirect impact on the outcome, as it motivated U.S. lawmakers to increase pressure on Cuba to cease its nuclear activities, arguing that an accident on the island might negatively affect the United States. The plant remained in limbo until 2000, when Castro and newly-elected Russian president Vladimir Putin agreed to officially abandon it.

THE CHILDREN OF CHERNOBYL

The case of the Juraguá nuclear power plant might suggest that Cuba did not fully understand or care about the risks involved in nuclear power generation. But the Cuban government was highly sensitive to the disastrous consequences of Chernobyl, as evidenced by its medical aid to the victims of the accident. Between 1990 and 2011, over 26,000 Chernobyl victims received free medical treatment in Cuba. 84 percent of these were children. Cuba’s medical aid program for the children of Chernobyl was the largest of any country.

The impetus for the program came from Anatoly Matvienko, the General Secretary of the Ukrainian Komsomol, who expressed his “worry about the state of Ukrainian children after the accident” to Cuban consul Sergio López in 1989.

References:

29. “Fidel en Cienfuegos.”
swered his call. In March 1990, the first group of 139 children from Kyiv arrived in Havana. After rapidly converting the former camp of the Cuban Young Pioneers at Tarará beach into a medical complex for new patients, Cuba significantly increased its capacity. In July, Castro announced that Cuba could take in 30,000 children annually if the Soviet side so desired.

Although the number of patients never reached that scale, the Children of Chernobyl program was massive. Patients were sorted among three levels of treatment based on the severity of their conditions. The most common ailments treated were endocrine disorders, digestive disorders, skin conditions, stomach problems, and orthopedic disorders. About 8 percent of patients had surgical operations, but usually their health improved simply thanks to a new environment with low stress, sun, fresh air, and proper nutrition.

Coverage of the Children of Chernobyl in the Cuban media was extensive. In 1990, *Granma* published 19 articles about the program. Of the 25 articles published between 1990 and 1992, 84 percent appeared on pages 1–3, and 76 percent were “above the fold,” reflecting their importance in the eyes of the Cuban government. (See Figure 2.) By contrast, less than 50 percent of the articles about the Chernobyl accident were printed on the first three pages. Although the Juraguá Nuclear Power Plant also received widespread media coverage—73 percent of articles about the plant appeared on the first three pages—the Children of Chernobyl program was clearly the most popular topic. In the articles written about the program, the accident itself is typically reduced to a brief sentence or omitted completely. Nevertheless, by providing such high-profile coverage to the program to assist children, the Cuban government implicitly acknowledged the scale of the tragedy.

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37. de la Osa, “Calificó Fidel de proeza laboral la remodelación de la ciudad de los pioneros.”
41. “Los niños de Chernóbil en Cuba.”
When the USSR collapsed in 1991, Cuba was plunged into a severe economic crisis, euphemistically dubbed the “Special Period.” Work on the Juraguá plant ceased in 1992, but the Children of Chernobyl program continued. By the program’s official conclusion in 2011, 26,114 patients from the former Soviet Union had received treatment in Cuba; 21,874 of these were children while 4,240 were adults, and 86 percent came from Ukraine. After 1998, Cuban doctors also treated Chernobyl victims in hospitals in Kyiv and Crimea.

The Children of Chernobyl program laid the foundation of Cuba’s bilateral relations with Ukraine. On June 30, 1992, Ukrainian president Leonid Kravchuk wrote a letter to Castro, expressing his “sincere gratitude for having helped Ukraine in the difficult struggle against the consequences of the Chernobyl catastrophe.” In 2011, Ukrainian president Viktor Yanukovych presented Cuba’s ambassador to Ukraine with an order of merit for his contribution to the Children of Chernobyl program. In 2012, Castro returned the favor when he decorated Yanukovych with the José Martí Order “for his contribution to the development of the bonds of friendship and cooperation existing between the two countries.”

The Ukrainian government’s continued efforts to highlight Chernobyl reflect the way in which the nuclear accident became a crucial component of Ukrainian nation-building in the aftermath of the Soviet collapse. Although neighboring Belarus suffered the greatest levels of radioactive contamination from Chernobyl, Ukraine is the only post-Soviet republic to wear the accident as a badge of suffering. A letter from a group of Ukrainian mothers, reprinted in Granma on July 4, 1992, exemplifies this strong

rhetoric of victimhood. In it, the women drew an explicit connection between Chernobyl and Ukraine, underscoring the importance of the accident for Ukrainian national identity. “We are speaking out so that the destiny of our children, whose lives were cut off by war, atomic bombs and chemical attacks, is not repeated,” they wrote. “We don’t want the children of Chernobyl, the children of Ukraine, to continue this bitter list.”

UNDERSTANDING CUBA’S CONTRADICTORY BEHAVIOR

At first glance, Cuba’s reaction to the Chernobyl accident may seem contradictory. On the one hand, Chernobyl had a negligible impact on the construction of Cuba’s own nuclear power plant at Juraguá. On the other hand, by offering to provide free medical treatment to thousands of victims, the Cuban government signaled its awareness of the scale of the accident. If Cuba understood the human consequences of Chernobyl for the Soviet Union, then why did it not proceed more cautiously with the Juraguá project?

In fact, the Cuban government’s behavior involved no contradiction. Cuba’s strong support for the Juraguá Nuclear Power Plant and the Children of Chernobyl program can be explained by the perceived contribution of both projects to the country’s autonomy and prestige.

Traditional accounts of Soviet-Cuban relations portray Cuba as a client state. Yet Cuba did not see itself this way. While Cuba was subordinate to the USSR for most of the 1970s and 1980s, it never fully surrendered its autonomy. For example, Cuba supported many liberation movements in Africa of its
own accord. After the Chernobyl accident, Cuba was careful to highlight that the VVER reactors to be built at Juraguá were different than the RBMK model installed at the Chernobyl plant. The Cuban government was convinced that it would not repeat the mistakes of the Soviet Union. In his letter to Congressman Bilirakis, Castro asserted that “Cuba responsibly observes and will observe established regulations … and advocate for greater collaboration between neighboring states [with nuclear energy].” The Cuban government “thought that the technology was infallible,” said Ambassador Sánchez. In pursuing the Juraguá project despite U.S. pressure, Cuba asserted its autonomy. It was not a Soviet puppet doomed to the same fate as its master, and it would not let the U.S. dictate its domestic policy.

The Children of Chernobyl program was another way for Cuba to put itself on equal footing with the USSR. From the 1960s through the 1980s, Cuba was heavily reliant on Soviet aid. The Children of Chernobyl program was a way for Cuba to demonstrate that its relationship with the USSR was not one-sided. On July 3, 1990, Granma quoted an official from the Belarusian Ministry of Health, who stressed that she was “grateful that [Cuba] is taking in the sick children whom we are not able to help in the Soviet Union.” In the health sector, Cuba was able to provide care where the USSR could not. It was a partner, not a satellite.

Yet autonomy was not the only factor at play. Prestige also created a major incentive for Cuba to develop the Juraguá plant and Children of Chernobyl program.

Juraguá was central to Cuba’s development goals. Even before the Cuban Revolution, Castro had expressed his dream of “bringing electricity to every last corner of the island,” citing nuclear energy as a way to accomplish this. Moreover, with no easily exploitable fuel source, Cuba was dependent on petroleum exports from the USSR. The Cuban government predicted that each reactor would save the country 600 million tons of oil over its lifespan. Juraguá was also a badge of honor. In 1983, Granma hailed Cuba’s election to the board of governors of the International Atomic Energy Agency as “a demonstration of the prestige of our country in the peaceful use of nuclear energy.” Nuclear energy would not only drive industrialization, but also improve Cuba’s standing on the world stage.

The Children of Chernobyl program also afforded Cuba significant prestige. First, the program provided an opportunity for Cuba to showcase the crown jewel of its social policy—healthcare. When the first group of Ukrainian children arrived in Havana, Granma asserted that patients would receive “the best medical attention with the best specialists, [and] the best medicines available in the world today.” On December 4, 1990, the same newspaper announced that a group of Soviet scientists had praised “the pro-

52. Castro and Bilirakis, “Cartas intercambiadas por el representante norteamericano Michael Bilirakis y Fidel sobre la electronuclear de Cienfuegos.”
56. Martínez, “Una muestra del prestigio de nuestro país en el uso pacífico de la energía.”
58. Martínez, “Una muestra del prestigio de nuestro país en el uso pacífico de la energía.”
59. de la Osa, “Llegan a Cuba 139 niños afectados en la tragedia de Chernóbil para recibir atención médica.”
fessionalism and knowledge of the Cuban medical personnel ... and the scientific-technical advancements at their disposition.”

Second, the program was a way for Cuba to best the United States. At a ceremony marking the opening of the Tarará treatment facility, Castro ridiculed the fact that “the great, immense and rich country to the North” offered to take in only 300 children.

John Kirk claims that humanitarianism was the driving force behind Cuban participation in the Children of Chernobyl program. If this were the case, then there would be no reason for the Cuban government to publicize the program so widely. That is not to suggest that Cuba’s motivations were purely selfish. But by showing off its magnanimity to Cuban citizens and the world at large, Cuba would benefit from the prestige associated with its advanced medical care and willingness to devote more resources to the cause of Chernobyl than one of the wealthiest nations on earth.

CONCLUSION

In May 2019, the HBO network released “Chernobyl,” a five-part historical drama chronicling the tragic events of the Chernobyl nuclear disaster. The series attracted millions of viewers worldwide and claimed ten accolades at the 2019 Emmy Awards. “Chernobyl” spread like wildfire in Havana, sparking a heated debate about the significance of the accident for Cuba.

Initially, Cuban media downplayed the Chernobyl accident, while the government pushed forward construction on two nuclear reactors in Juraguá. At the same time as the Juraguá project advanced, Cuba initiated a massive medical aid program for Chernobyl victims. These actions might seem contradictory. The Children of Chernobyl program shows that Cuba was aware of the consequences of the accident, yet there is no evidence that this knowledge significantly influenced its nuclear policy. I argue, however, that Cuba’s behavior is consistent.

In pursuing both the Juraguá project and the Children of Chernobyl program, Cuba asserted its autonomy vis-a-vis the Soviet Union and added to its international prestige. After Chernobyl, the Cuban government was convinced that it would not repeat Soviet mistakes; by offering to take in tens of thousands of sick children affected by the nuclear power catastrophe, Castro positioned himself as a Soviet partner, rather than a client. Both projects were also opportunities for Cuba to enhance its prestige on the world stage. Juraguá was the key that would unlock the door to the prestigious club of nuclear-powered nations, while the Children of Chernobyl program was a way to advertise Cuba’s advanced healthcare system.

This paper makes three contributions to scholarship. First, it adds nuance to our understanding of Soviet-Cuban relations by supplying an example of Cuban autonomy vis-a-vis the USSR. Second, it provides insight into Cuba’s perception of its role as a serious international player. Finally, Cuba can serve as a case study to understand the relationship between developing countries and nuclear energy more broadly. Prestige is an important driver of nuclear decision-making not only in developed nuclear weapons states, but also in developing countries. Although both the Juraguá Nuclear Power Plant and the Children of Chernobyl program have shifted from Cuban reality to Cuban history, their lessons about Soviet-Cuban relations, Cuban national self-perception, and developing countries’ nuclear ambitions live on.

61. de la Osa, “Calificó Fidel de proeza laboral...”
64. Two examples of this debate are: “Pudimos ser nosotros: los cubanos reaccionan a la serie de HBO 'Chernobyl',” América 2.1 (blog), accessed December 4, 2019; “'Chernobyl', la serie que todos los cubanos deberían ver,” CiberCuba, June 11, 2019.