Profile of Jane I. Guyer

Crude oil is extracted in Nigeria but refined overseas. With government policies and exchange rates in constant flux and shortages commonplace, the gasoline that reenters the country may exceed the means of ordinary people. Filling one's tank in Nigeria can be a tense experience, says economic anthropologist Jane Guyer, a recently elected member of the National Academy of Sciences and chair of the Department of Anthropology at The Johns Hopkins University. She recalls reading in a newspaper that a customer once became so frustrated waiting in line that he lit a match and blew up the gas station and the surrounding crowd. However, gas purchases typically follow a pattern—just not one that adheres to free market theory, where limited gas is sold to the highest payers and many go without gas.

Guyer's research examines how historic currency systems shape society's view of the perceived right and wrong ways to spend and save money. She also explores how those moral values change when they encounter new national and international monetary policies—a situation captured by the oil situation in Nigeria. Guyer's efforts to broaden economic models to fit real life situations, particularly in soft currency economies, reflect her overarching goals as an economic anthropologist. "We don't take a particular system as normative," Guyer says.

In her inaugural article, Guyer reviews her work with historic and current money systems and discusses how market theories can fail to capture the breadth of people's experiences (1).

Economics of Turbulence

By design, economic models simplify market conditions. Guyer's upbringing helped her realize early in her academic career how such principles fall short during times of turbulence. Born on New Year's Eve in 1943 on a Royal Navy base in Scotland and raised in Birkenhead, England, Guyer's earliest memories begin in the aftermath of World War II. The collective experience of the war, she says, instilled a strong sense of civic duty among those people of her generation. "We were taught that rebuilding was a collaborative process, taxes were a privilege without which society would cease to function, and rationing was a way of ensuring food for everyone," she says.

During the war and for some time after, even infants and children had their own ration books. Because children did much of the shopping, Guyer became aware at a young age of how food was

Jane I. Guyer, standing before "The Aztecs: Sacrificial Stone" at the Department of Anthropology, Johns Hopkins University.

purchased. She noticed, for instance, that children received free orange juice and milk for nutritional purposes, whereas people from infants to seniors were limited to the same 6 oz of candy per week. Nobody, Guyer recalls, thought simple logic governed market prices.

By high school, Guyer had determined that she wanted to study social history, a blend of anthropology and sociology that looks at how education, economics, and cultural systems shape a given society's values and social mores in the modern day. In 1962, Guyer entered the sociology and anthropology departments of the London School of Economics. Guyer quickly began to question free market theories. She recalls an example from her textbook that illustrated the concept of an equilibrium price point with an olive constantly moving to the bottom of a tipped martini glass. The notion felt foreign to Guyer and her classmates. "First of all, we had no idea what equilibrium could possibly mean, having grown up with convention," she says. "And second, none of us had ever drunk a martini. This explicitly upper-class image alienated the theory from our experience. We were learning equilibrium theory as if we were learning a doctrine."

Moreover, local markets were still the norm during Guyer's childhood, which resulted in complex human relationships that did not factor into a free market paradigm. For instance, when Guyer was a child, when the neighborhood grocer was expecting shipments of black currants or Seville oranges, he would inform Guyer's mother, a jam maker. "I just grew up assuming that this is how the markets work, this is how economies work," Guyer says. "And then to go to university and start reading about free markets . . . it didn't connect to my experience."

Putting Economic Theory to the Test in Postcolonial Africa

That skepticism has remained with Guyer throughout her career. She graduated from the London School of Economics in 1965 and married Bernard Guyer, an American exchange student she met in Edinburgh through a mutual friend. The Guyers relocated to the University of Rochester in New York, where he entered medical school and she began a graduate program in anthropology.

For Guyer, postcolonial Africa was an ideal location to examine the strengths and limits of free market economics. How well, she wondered, would such economic principles predict emerging market systems in the postcolonial world? As new African countries established governments, education systems, and national languages, their economies remained in flux, providing Guyer with the opportunity to watch how markets developed. In 1968, Guyer traveled to a small Yoruba town of 7,000 people in Nigeria, to study the region's farming system. Understanding any economic system, Guyer says, requires seeing how people live. "Making a living is not just putting food on the table or a roof over your head," Guyer says. "A living is also a life; a living is a sense of dignity; a living is a sense of a career."

At the time, Africa's farming systems were seen as traditional systems or systems that loosely resembled the peasant systems once common throughout Russia and Europe. However, the situation in Nigeria was different—there, farmers in the urban hinterlands exported goods to rapidly growing cities without any overlord control. "If we couldn't use a peasant model to describe farming in Nigeria, what could we use?" Guyer asked.

Guyer started by looking at the scene from a wide-angled lens and then focusing in on the details, a methodology that continues to characterize her work. She surveyed the town to see how each kinship group got to the region. She then surveyed farms across the region. Market specialization, she found, varied by ecology, with some farmers producing yams, others producing cocoa and cassava, and others producing tobacco. All farmers also grew food crops for themselves. Finally, Guyer focused on 16 individual people representative of the larger population. Unlike feudal populations, where upward mobility is virtually nonexistent, Guyer found that kinship titles enabled one-quarter of

This is a Profile of a recently elected member of the National Academy of Sciences to accompany the member's Inaugural Article on page 2214.

the population to ascend the social ladder. Even those people without such upward mobility found leadership roles elsewhere, such as within the religious community. In the Nigerian hinterlands, Guyer concluded, upward mobility was shaped less by social class than by a more fluid "social gradient."

Ancient Money Systems

After completing her doctorate in the early 1970s, Guyer followed her husband to Cameroon, where he had accepted a job with the US Public Health Service. There, as her family grew from two to three children, she continued her studies of food systems. She was immediately struck by the fact that men living around Cameroon's capital, Yaoundé, grew cash crops, whereas women were in charge of food farming, which was in marked contrast to Nigeria, where men did most of the farming. Using a similar macro to micro approach as the one she used in Nigeria, Guyer found that men contri buted to external needs, such as school fees and bridewealth, "while the women controlled the purse for their diets" (2–5).

Guyer's extended stay in Cameroon enabled her to delve deeply into her study of economic systems in Africa—specifically examining how precolonial currencies and colonial histories shape modern economic practices. Before colonial rule, the area that now comprises Cameroon lacked urban markets. Cities were sparse, and long-distance trade was poorly documented. How had long-distance transfers taken place? Guyer brought that question with her to Harvard University in Cambridge, Massachusetts, where she became an assistant professor of anthropology in 1980.

There, as a researcher and then co-curator for an exhibit at Harvard's Peabody Museum in 1986, Guyer became familiar with the museum's extensive collection of objects from colonial Cameroon. She became particularly interested in the bikie, a locally produced, intricate iron currency in use from precolonial to early colonial times. She wanted to know how the value of bikie was determined and, for example, how many yams someone could purchase in exchange for a given amount of bikie.

Guyer took photos of the currency from the archives back to Cameroon and showed them to village elders, the last generation to remember the bikie. The elders told her that some of the bikie were traded regionally for livestock and prestige foods, like large baskets of melon seeds. With the help of materials scientists, Guyer also analyzed the metal content of different types of bikie and metal tools from the region to measure the relationship between weight and value.

Then, with additional collections from the Royal Museum of Central Africa in Tervuren, Belgium, Guyer compared currencies from the forest regions in southern Cameroon with those currencies traded in settlements along the Ngiri River, a tributary of the Congo. Her work revealed a complex trade network in which different types of metal currency were conveyed within societies and across borders up and down the great river system (6, 7).

Watching the Markets Grow

In the mid-1980s, after securing a professorship at Boston University (BU) in Massachusetts, Guyer returned to the town she had previously studied in Nigeria. This time, she wanted to know how recent rapid urbanization had changed the lives of the citizens and communities that she had studied in the late 1960s. She found that, although everyone, including women, was farming, many were also working other jobs. Vehicle and transport jobs were dominant, with members of the younger generation driving and packing pick-up trucks bound for the market and taking on apprenticeships in everything from tractor maintenance to punching dents out of cars. "These were people who had serious other occupations and were farming on the side," Guyer says (8).

At BU, Guyer also partnered with her colleague Eric Lambin, an earth scientist, to use remote sensing, or analysis of satellite images, to assess how emerging farming practices were altering the landscape. The images revealed broad patterns of land use change in the hinterlands. Guyer's findings on the ground, coupled with her work in remote sensing, challenged the common view of a stagnant Africa. Specialized work and crop intensification clearly represented a mode of growth, says Guyer, who published her findings in a book titled *An African Niche Economy: Farming to Feed Ibadan, 1968–88* in 1997 (8–11).

In 1994, Guyer left BU to direct Northwestern University's prestigious Program of African Studies, a position that she held until 2001. There, she developed resident fellowship programs for African scholars to visit Northwestern for a trimester to conduct research. She also returned briefly to curatorial work to help plan the program's 50th anniversary with a special museum exhibit, "Living Tradition in Africa and the Americas: The Legacy of Melville J. & Frances S. Herskovits," devoted to the founder's extensive research collections.

At Northwestern, Guyer began work on her next and most influential book, *Marginal Gains: Monetary Transactions in Atlantic Africa* (12). The work details how African monetary practices developed from the precolonial to postcolonial period (12). To illustrate that point, Guyer devotes an entire chapter to the gasoline situation in Nigeria and an event that she witnessed there in the 1990s. During a national shortage, a shipment of gasoline had just arrived at a small town in western Nigeria where Guyer was conducting research. Guyer and her Nigerian hosts joined the crowds at the gas station. Although the military-led government had fixed the unit price of gasoline, the gas station's owner knew that she would need to massage the rules to avoid unrest. She first sold gasoline to prominent members of the community, each person receiving no more than they needed. Subsequent groups received slightly less gasoline than desired and paid a little more per liter than the group before them. The allocation process lasted well into the night, but nobody went home without gas. "She worked a whole variety of additions and subtractions such that people understood precisely how and why they had been served as they had," Guyer says. "One misstep and the thing could have turned into an inferno."

In a later study, Guyer returned to the concept of rationing. During World War I, food was rationed by kind and quantity. However, during the second World War, the nutritional science of vitamins and nutrient balance became a fundamental consideration, and some goods were, therefore, defined as essential commodities (13). However, as with the complex oil situation in Nigeria, imported policies can interface with different societies, politics, and history in unexpected and invasive ways. Entire markets get created around the import and distribution of these goods, Guyer says. "It can become a gravy train for people."

Looking Inward

Guyer has now begun to flip the lens around and look at American attitudes to money with an anthropological eye. She reflects, for instance, on how shifting views are making it more difficult for Americans to plan for the near future. Starting with Reagan-era economics and the mantra of no new taxes, attention was taken away from planning for the next year or two or even five, Guyer says (14). People began to believe that, left on their own, markets would settle in optimal fashion.

"Long before the [2008] crash, I realized that a lot of our economic commentary was about how markets will work out in the long term," Guyer says. "If that's the only way that you're thinking, how do you intervene between now and then?" Such a view, she notes, is puzzling to anyone, like herself, who grew up during a period when preparing for the immediate future was integral to rebuilding the community.

Guyer hopes to publish that decade-long body of work in a book of essays.

Despite the development of her career over the past four and a half decades, Guyer says her primary question has remained simple: how do people make a living, particularly during times of turbulence? That question, however, encompasses all of the internal values and external market forces that go into building a life. "The longer I pursue this question, the more profound it seems to me," Guyer says.

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