

Not My Grandfather's Wall Street: Diaries of a Derivatives Trader

By David von Leib

America Star Books, Frederick, MD, 2015.

389 pages, \$23.58.

Reviewed by Christopher Faille

The name on the title page, David von Leib, is slightly fictionalized. There's no obvious reason for that: People familiar with the recent history of the commodity markets will know who the author really is, and no one else is likely to care. But I'll respect his authorial decision here.

Leib finds it convenient to tell his story as a third-person narrative with a slightly fictionalized protagonist, Thornton Lurie. But Lurie is clearly Leib, so he has changed his name twice here.

Further, when he does change names other than his own, the change often looks more like a misprint than an actual fictionalization. Thornton as a young man has a job interview with an investment bank named Goodman Sachs. The U.S. Treasury secretary in the mid 1980s is called Jim Bacon instead of Baker. This wink-wink, nudge-nudge fictionalization is presumably

aimed at keeping lawyers away and allowing Leib to insert plausible dialog in rooms where he was not present.

Although the fictional veneer is a bit annoying, Leib does have a lot to say about the recent history of the markets, especially derivatives markets, and for long stretches he does a fine job of it. *Not My Grandfather's Wall Street* is both clearly written and entertaining.

The Death of Edmond Safra

I'd like to focus for purposes of the remainder of this review on the mysterious death of Edmond Safra, a financier of Middle-Eastern descent who founded the Trade Development Bank in the 1950s, the Republic National Bank of New York in the 1960s, and Hermitage Capital Management in the 1990s. Safra was a giant figure in the markets who unsurprisingly appears in this book in a number of contexts. But nothing was as controversial about his life as the ending of it. He died suffocating in the smoke of a deliberately set fire on Dec. 3, 1999, in his Monaco penthouse.

Leib has his own theory of why that happened. Consistent with the wink-wink nomenclature of the book, the decedent's name is written Edmund Safri. Similarly, the Green Beret/personal nurse who would eventually serve years in prison for the fatal arson is called Ted Maw, whereas in the maw of the real world, the accused and eventually convicted perpetrator is Ted Maher.

The prosecution's theory of the case was that Maher set a fire in Safra's apartment without any intent to kill or even to harm him, but just so that he, Maher, could then save Safra from that fire and draw favorable attention to himself as the hero of the day. After the fire had clearly gotten out of control, Maher inflicted knife wounds on himself so that he could blame intruders. He then sought help, but the firefighters (deterred from immediate entry by the report of knife-wielding intruders) didn't get to Safra in time. The financier died of asphyxiation before they arrived.

Maier told his "intruders" story at first, then recanted and went along with key

facts in the prosecution's theory. After his conviction, however, he recanted his recantation, claiming that his inculpatory statements were coerced by the Monaco authorities. He is now a free man, having been released from prison in 2007.

A Machine to Produce a Conclusion

Dominick Dunne, a journalist who looked into the matter in some depth for a Vanity Fair story, suggested that some facts about the fire were inadequately explained by the prosecution's case. More intriguingly, Jean-Christophe Hullin, once the chief investigative judge in the Safra matter, has admitted that he participated with a member of Maher's defense team and a state prosecutor in rigging the trial to produce the desired outcome. The notion that the American expatriate nurse did the deed and acted alone was deemed soothing to the well-heeled in Monaco, and the trial was a machine to produce that conclusion.

Leib steps into this fraught terrain. His own view is that "Maw's" real contribution to the death of his boss was not in setting the fire, but in sending most of the security detail home. On this account, Maw had planned to make himself a hero, and having the bodyguards on the scene would have detracted from his starring role. So he told them it was going to be a quiet night and they could take off. Maher was a former Green Beret, so it is feasible that the bodyguards saw him as one of their own, rather than as simply filling out his job description as Safra's nurse. So it isn't utterly impossible that they might have taken some hours off on his say-so.

Leib's story requires, then, that the intruders were real, that they were likely hired by some of the enemies Safra had made in the course of his own wheeling and dealing, and that Maher's rash decision to send the security detail home gave them an opportunity. As the bodyguards "ambled away," their departure, Leib writes, did not go unnoticed. His book gives some clues as to what enemies might have hired these intruders, but let us simply posit that anyone who makes the kind of money

Safra did, in the high-visibility manner that he did, has enemies.

If tomorrow's headline tells us (God forbid) of the unnatural death of, say, George Soros, Bruce Kovner, or Michael Steinhardt, would anyone's first guess be "Ah, another nurse must have been desperate for a big bonus and more job security"? Probably not. At any rate, the Safra apartment's bathroom was also designed as a safe room, with double-reinforced steel, because Safra was well aware that he had dangerous enemies.

In Leib's view, when Safri/Safra heard the intruders break in and overheard their tussle with Maw/Maher, he headed to the safe room. While there, listening to his assailants' attempts to break in, he decided to summon help the only way available, by setting a fire that would set off the sprinklers and alarms. In other words, it was Safra himself who took the action that the Monaco authorities would later attribute to Maher.

Conclusions

If those who are skeptical about the court's judgment are right—if, for example, investigative judge Hullin is telling the truth—then the death of Safra and its aftermath tells us something unfortunate about the continent's inquisitorial-style justice system. It reinforces one's faith in the more adversarial system of the British common law.

Not My Grandfather's Wall Street has much more to it than I can discuss here. I find especially interesting in this connection certain unexpected facts about the international gold market in the 1980s. Apparently, in the early 1980s, it was illegal to import gold into the Republic of China (Taiwan). But the customs officials could be bribed, so gold did regularly flow there. As one character explains to another, "gold comes into Taiwan like clockwork throughout the calendar ... except for one month." The regular customs officials generally vacation in June. They are replaced by interns, and the gold importers find it cheaper to halt imports for that period than to pay off interns. Voila!—The gold importers' demand goes down to such an extent as to make for a predictable drop-off in the world price.

Like the demand, the international supply of gold is subject to seasonal variation, arising from vacation schedules. Under

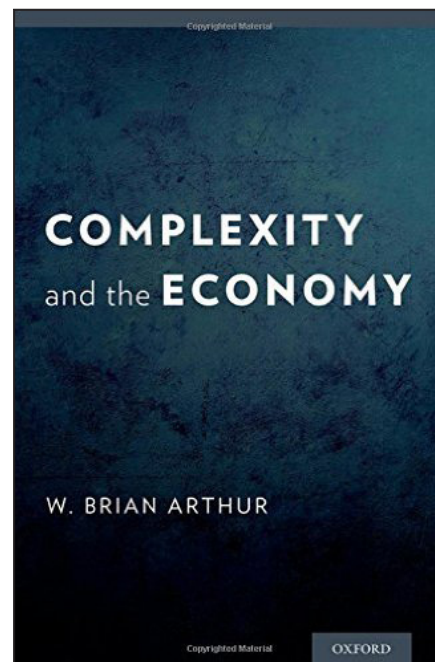
apartheid, all of South Africa's international exportation of gold occurred through the orders of the Central Bank in Pretoria. Those bureaucrats took their vacations in December (in the Southern Hemisphere, of course, that's a natural time to head for the beach). So in November they conclude the gold sales they're supposed to do for the year. This made for an artificial shortage and price increase each year at that time.

Under standard economic theory, the global market in precious metals would be deemed to be efficient enough to arbitrage away irrational and predictable seasonal variations. Yet it doesn't. Or, at least, on Leib's evidence, it doesn't do so quickly enough to prevent traders from learning such patterns, acting on them, and buying themselves beach houses with the proceeds of a three-day trade made, say, in early July as the pay-off money begins to work its wonders in Taiwan again.

Members of the federal bar might be more intrigued, though, by this book's depiction of the legal troubles of Martin Armstrong (referred to here as Marty Amwell). Armstrong, once a high-flying market-timing consultant and investment-newsletter pundit, went to prison for seven years for contempt of court in what seems to have been a personal vendetta on the part of Judge Richard Owen. In time the Second Circuit removed Owen from the case (both the contempt-of-court case and the underlying securities-fraud charge), saying that a "different pair of eyes" should take a look.

Armstrong may have been guilty of hubris, but that is a widespread sin, not a crime at all. There were surely better uses for scant prison space than his confinement. ☺

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Complexity and the Economy

By W. Brian Arthur

Oxford University Press, New York, NY, 2015.

211 pages. \$36.95.

Reviewed by Christopher C. Faille

Traditional economics doesn't have a lot to say about time. Or, at least, it says nothing about time that speaks to the early 21st-century zeitgeist.

Joan Robinson, a key figure in the Cambridge School of Economics, put the point well about three-quarters of the way through the last century: "Once we admit that an economy exists in time, that history goes one way, from the irrevocable past into the unknown future, the conception of equilibrium ... becomes untenable. The whole of traditional economics needs to be thought out afresh."

W. Brian Arthur quotes Robinson's assertion in the first chapter of his new book, *Complexity and the Economy*. The bulk of the book consists of a collection of essays in which Arthur tries to think matters out afresh. I'll speak more of Robinson below.

Why does equilibrium become untenable? The answer is not obvious. I propose to proceed by making the case for equilibrium-focused thinking, so that you and I together can then understand the importance of the case against.

Equilibrium Versus Catastrophism

We all deal with equilibrium, or with other concepts that are closely akin to equilibrium,

in a variety of fields of thought and in unreflective day-to-day life as well.

Consider astronomy as an example. Our familiar solar system is in an equilibrium state. The major planets have been traveling in their present orbits around the same star for a long time. Back in the 1950s, the eccentric scholar Immanuel Velikovsky hypothesized that the present equilibrium was a quite recent and tenuous affair. The planets we know as Saturn, Jupiter, Mars, and Venus have each moved into their present orbits within human memory, in the course of celestial developments that shaped our early civilizations and our inherited mythologies.

It seems safe to say, though, that the opinion of every credentialed astronomer on *this* planet is very much otherwise. Velikovsky's views, bold and eruditely presented though they may have been, were simply wrong. The systemic equilibrium among the objects that play volatile roles in Velikovsky's theory is in fact a stable and a long-lasting one. The solar system becomes rather chaotic when considered over time-scales of millions or billions of years, but it is quite orderly when considered within the handful of thousands of years available to human observance.

Let us consider next a more ordinary-life example of equilibrium: dishes and silverware set out on a table. Someone has just set them out. Every dish and item of silver is firmly positioned on the table; none is teetering on an edge. The table itself has a flat surface parallel to the ground. The table setting is a system in equilibrium. The host or hostess who set it up thus can conclude with reasonable confidence that it will be as it is when family members and guests arrive for the repast. A lamentable disequilibrium may arise, though, if the family dog comes by and runs into the table with solid canine force. The items may then be knocked about a bit before coming to rest in some new and less desirable equilibrium.

So, why should economics *not* rely on such a notion? A certain city contains a specific number of retailers of silverware sets. It may well be that the price for such a set has remained quite constant over a period of months or even (if we adjust for inflation) a period of years. We may suppose without absurdity that this constancy has a self-enforcing feature. Within the period of equilibrium, increases in the price cause higher profits, which tempt new entrants into the market. Those new entrants drive down the price to the earlier level through

competitive pressure, then mergers or attrition bring the number of competitors down to that level as well. Or perhaps an especially vigorous round of competitive price slashing has reduced profits to a level lower than that of other retailing opportunities. Some of the participants will exit the market and instead sell toys or clothing or whatever else produces a higher reward. This will lessen competitive pressures, and the price will return to the equilibrium level.

Of course in such a case, as in the cases of silverware and solar systems, the equilibrium is subject to external shocks. Objects from deep space do sometimes enter the sun's domain; dogs do bump into tables. The price of silver might spike and disrupt our neat narrative by raising the costs of all competitors, creating an opportunity for anyone who, with hindsight or luck, locked in his own silver supplies at a low cost before the spike.

Sources of Discontent

To get back to our question: Why is the centrality of the notion of equilibrium a charge against classical economics? Much of the discontent that has arisen comes from a sense that equilibrium theories have done their job too well, and that there isn't a lot more to be said about the sort of relations they dissect or about the closed systems they posit.

Some discontent, too, is generated by the very closedness of those closed systems. Why, even in our simple silver-set thought experiment, have we posited that the pertinent market for silverware is within a single city? Could a New Yorker not travel across the Hudson and buy silverware in Fort Lee, N.J., if price and quality beckon? Among their more hard-pressed customers, aren't the silverware merchants competing against plastic ware? And shouldn't a comprehensive theory have something to say about price hikes in raw materials?

A third source of discontent is that the equilibrium theory isn't predictive. In Popperian terms, it is not falsifiable. Even if one were lucky enough to find a city and a silverware market that instantiates an equilibrium model perfectly, the closest one could come to a prediction of the course of prices over the next six months is that either they will stay roughly where they are or they won't. And, that if they don't stay where they are, there will be a discoverable reason, after the fact, as to why they didn't.

Such theories also, incidentally, encour-

age one to say that the discoverable reason won't be "greed." Because greed is assumed as a constant, it can't be the cause of a change. Still, that inference seems thin gruel to have come from so much grain.

Enter Complexity

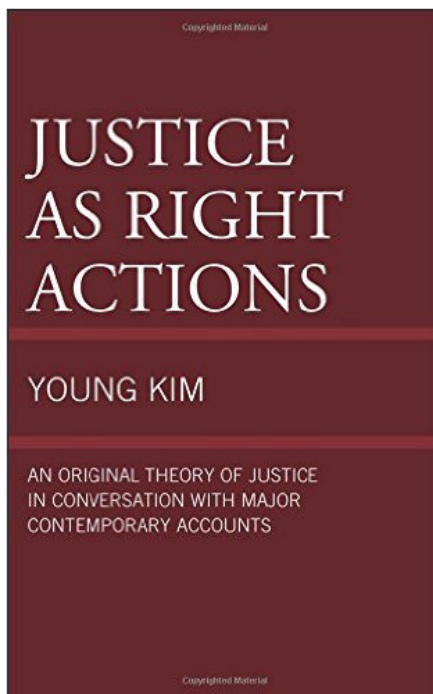
Complexity theory is a field of applied mathematics that resembles, and in some respects has spun off from, chaos theory. It focuses on such ideas as path dependence—that is, the unanticipated ways in which what happened long ago, perhaps unnoticed and for all practical purposes at random, may lay the groundwork for choices to be made today, foreclosing some options and redefining others.

The Santa Fe Institute, with which Arthur is affiliated, is a nonprofit research institution in the titular locale that is aimed at the cross-fertilization of the special sciences. The application of the mathematics of complexity to economic theory—in ways that may assist economics in getting beyond the equilibrium-centered approach—has been a concern there since 1987.

In terms of the history of economics, Arthur sees his work as building upon certain economists of earlier generations, adding mathematics and its rigor to an approach they often pursued in a more intuitive, even anecdotal, manner.

Joan Robinson, mentioned above, made her reputation in the 1940s and 1950s as a disciple and expositor of John Maynard Keynes. She was working at that time within the frame of what Arthur calls traditional economics, of which Keynesianism was the dominant macro-economic branch. But, in later years, she became discontented with that approach, and her writings from 1962 until the end of her life focused on methodological issues, precisely on finding a new way forward. So Arthur is entitled to appropriate Robinson as a progenitor.

Beyond the programmatic preface and first chapter, this book is a collection of papers that Arthur has published in the decades since, with contextualizing notes for some of them. Does it all constitute an improvement on more traditional sorts of economic theory? I can't say. But I will say that, on the evidence of this volume, complexity offers a viable research program. It may not be the only way forward for economics, but it is *a* way forward in a science that must, like every science, move from the irrevocable past to the unknown future. ☉



Justice as Right Actions: An Original Theory of Justice in Conversation with Major Contemporary Accounts

By Young Kim

The Rowman & Littlefield Publishing Group,
Lanham, MD, 2015. 217 pages, \$85.

Reviewed by Christopher C. Faille

Young Kim, the author of *Justice as Right Actions*, is an adjunct professor at Northwestern University School of Law. The “contemporary accounts” to which book’s subtitle refers come from legal and political philosophers H.L.A. Hart, Ronald Dworkin, Charles Beitz, John Rawls, Robert Nozick, Jürgen Habermas, Joseph Raz, Amartya Sen, Iris Marion Young, and others.

Justice as Right Actions is not well written. Even to get started, one has to get past introductory clunkers such as: “As to the deontological approach to the question of justice delineated in chapters 2 and 3, then, I include the consideration of values as I interrogate the priority of the right over the good to answer the question of whether justice as right actions provides sufficient moral decision-making resources while still maintaining a theory that otherwise provides for the priority of the right over the good.” That means, in more concise and vernacular English, “I hope to explain why the ends don’t justify the means while acknowledging that, yes, the ends are important in making moral decisions.”

Back to Kant

Despite such inelegance, Kim does manage to say something new while traveling through such often-worked terrain, so it is worth persevering if you have any background in the sort of discussions to which his subtitle refers.

Kim believes that the portion of the discussion of justice that traces itself back to the works of Immanuel Kant has gone off course in the 20th and 21st centuries by adopting a “distributional view of justice” rather than Kant’s own “relational” view. Kim hopes to get the discussion back on the right path by “marginalizing” distribution and “foregrounding” human relations.

He proposes two principles of justice that would restore this relational view:

“One is responsible for one’s own actions.”

“One should act with respect and concern for persons having the same right to act and to respond to one’s actions.”

The “one” in both statements is a human individual, and the first principle means that such an individual is the true focus of all moral blame and praise. Kim associates this, in turn, with the idea of “negative liberty” found in the works of John Stuart Mill and Isaiah Berlin.

The second principle sounds, quite deliberately, like a restatement of Kant’s categorical imperative. Treating persons with “respect and concern” means treating them as ends in themselves, and acknowledging that they have the same right to act as one’s own self suggests the Kantian project of “universalizing” the maxim of one’s own actions.

A Dash of Empiricism

But Kim acknowledges that Kant’s own formulations abstract from the empirical world rather too drastically. Kim doesn’t share Kant’s sharp distinction between the really-real (noumenal) on the one hand and the empirical not-so-real (phenomenal) on the other. So he wants to have his categorical imperative and his empiricism too. This is why Habermas is an important figure for him: Habermas shows him how this can be done.

Habermas’ notion of communicative reason, expounded in *Between Facts and Norms* (1996), sees an internal connection between (in Habermas’ words) “the constraints and necessities under which the reproduction of social life is carried out, on the one hand, and the idea of a conscious conduct of life, on the other,” or between

the world one observes and the sort of life one ought to lead. The internal connection consists in the fact that human beings have to talk to each other.

It is one of the expository weaknesses of this book, though, that Kim doesn’t actually quote that passage, or any other passage, from Habermas’ book. He repeatedly alludes to the book in question, and to its guiding idea, with the presumption that his readers will need no more than the allusions or will look it up and read it side-by-side with his own book.

At any rate, the idea of communicative reason gives Kim something more empirical than the “universalizability” of a maxim. His second principle, quoted above, suggests real communities of people who regularly interact with one another and who have the duty in that context of treating one another respectfully. They fulfill that duty as each participant comes to understand the appropriate display of respect in the course of this process.

Global Justice

“Justice as right actions,” the title of the book, serves as a bumper sticker-size condensation of its argument. One of the phrase’s purposes within the book is to serve as a counterpart to Rawls’ even briefer condensation of his distributional argument, “justice as fairness.” But, in terms of the sort of particular political order that Kim would seem to prefer, he doesn’t actually seem all that far from Rawls. Kim writes that the political order that corresponds to “justice as right actions” consists of “a form of liberalism, with components of liberty and equality, tolerance and diversity.”

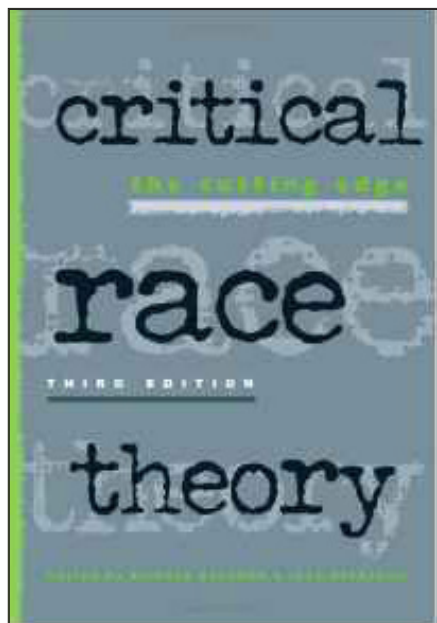
The one field where Kim goes some distance toward the application of such generalities is that of international relations, and specifically the law of war.

Kim is “biased toward non-intervention” by one society in the deliberations of another, “although such a bias may be overcome, considering the circumstances.” If I understand him properly, he also believes that history moves slowly in the direction of a global sovereign. In the meantime, he rejects both the “realist” and the “cosmopolitan” theories of international law and justice. The “realist” sees the world from the point of view of nation-states as a jungle, a war of all against all, without right or wrong, but only winners and losers. The “cosmopolitan” judges matters as if a single community is in place, deeming all acts in the pursuit of

unjust wars, and unjustified acts even in the pursuit of just wars, as identical in principle to domestic violent crimes.

The model of “justice as right actions” apparently calls for a position between those extremes. International relations must be an agreement, at the state-to-state level, on “something in between, with attributes of both views guiding international relations,” under which nations express “due concern and respect for other nations.” Rightly organized states, that is, states that have a “just constitution and basic structure,” will recognize one another, and presumably over time will work together to create a more cohesive global order.

As Abraham Lincoln reportedly said about another book, “People who like this sort of thing will find this the sort of thing they like.” ☺



Critical Race Theory: The Cutting Edge (Third Edition)

Edited by Richard Delgado and Jean Stefancic

Temple University Press, Philadelphia, PA, 2013.
839 pages, \$99.50 (cloth), \$55.95 (paper).

Reviewed by R. Mark Frey

On July 4, 1992, in Philadelphia, former Supreme Court Justice Thurgood Marshall received the Liberty Medal from the National Constitution Center, and, during his acceptance speech, he voiced frustration with our nation's failure to come to grips with race and racism:

I wish I could say that racism and prejudice were only distant memories. I wish I could say that this Nation had traveled far along the road to social justice and that liberty and equality were just around the bend. I wish I could say that America has come to appreciate diversity and to see and accept similarity.

But as I look around, I see not a Nation of unity but of division—Afro and White, indigenous and immigrant, rich and poor, educated and illiterate. ... We must dissent because America can do better, because America has no choice but to do better. ... We will only attain freedom if we learn to appreciate what is different and muster the courage to discover what is fundamentally the same. America's diversity offers so much richness and opportunity.

Marshall delivered those comments almost a quarter of a century ago, and it seems that we still have much to do in this regard. Some might even say that we've lost ground.

Think about the world today. Black Lives Matter decries the high incidence of shootings and imprisonment of young black men in this country, while noting as well the disparities in income and education for blacks in America. In June of last year, nine people were killed during a mass shooting at the Emanuel African Methodist Episcopal Church in Charleston, S.C., by a white man who told police that he'd hoped to start a race war. Immigrants and refugees are demonized and lumped with terrorists, and people demand to close our borders to foreigners. Until recently, marriage was viewed as a legal relationship restricted to opposite-sex couples.

All the while, our nation grows more diverse, with projections that by mid-century, no group will constitute a majority of the population. What are the implications of this development? And what is race anyway? A biological fact or social construct? President Barack Obama comes from a mixed-heritage background, with an African father from Kenya and an Anglo mother from the plains of Kansas. Should he be defined as black or white? Should he be allowed to self-identify as black or white, or does that decision fall to the majority culture? And what flows from being categorized as black? As white? Or as mixed heritage?

When we raise the issue of race in the United States, do we refer solely to the dynamics between blacks and whites, which have developed from our history as a slave-holding republic? What about our Asian-Pacific Islander, Hispanic, or Native American populations? What about sexual orientation? How does that factor into the conversation about race and racism?

Questions such as these are the essence of *Critical Race Theory: The Cutting Edge*, an anthology edited by Richard Delgado and Jean Stefancic, which is comprised of 82 essays devoted to race and how it permeates all aspects of our lives in the United States, whether we perceive it or not. Race is an ever-present element of life in this country. It can be seen at the macro level in matters of access to resources and power and at the micro level of daily social interactions, such as a simple greeting exchanged between two people, which may differ if it is between two white males, a white male and white female, a white male and black male, a white female and black male, a white female and black female, or a black male and black female.

According to the editors, critical race theory arose when certain legal scholars, most notably the late Derrick Bell (an African-American) and Alan Freeman (a white), expressed frustration with the glacial pace of racial reform in the mid-1970s. They and others sought to find “new ways of thinking about our nation's most intractable, and insoluble, problem—race.” In 1989, the critical race theory movement began organizing and held its first working session shortly thereafter. The first edition of this book was published in 1995 and was used in more than 100 college and university courses. Proponents of critical race theory claim that old ways of seeking reform, such as preparing amicus briefs, marching, and publishing articles in legal and popular journals, were not working. Calls for new approaches relied on such sources of inspiration as critical legal studies, feminist thought, and continental social and political philosophy, as well as the works of civil rights leaders Martin Luther King, Jr., Rosa Parks, César Chávez, Malcolm X, and the Black Panthers, among others.

In a systematic fashion, *Critical Race Theory* tackles numerous issues by presenting several related essays within themed sections, many of which have been alluded to in this review: critiques of liberalism; revisionist interpretations of history;

crime; intersection of race, sex, and class; the black-white binary; intergroup relations; legal institutions, critical pedagogy, and minorities in the law; gay and lesbian issues; cultural nationalism and separatism; criticism and self-awareness; and critical white studies, among others. The material is sometimes dense, confrontational, rhetorical, and demanding, best read in bits, an essay here and there, allowing time to ruminate on each. But it is must-read material.

The book raises more questions than answers, and that's fine. It forces us to face uncomfortable issues and think hard about our legal system and our place in it, whether one is a student contemplating or attending law school, a new practitioner, or an old hand

who has devoted his or her career to the law.

In a 2005 commencement address at Kenyon College, the late David Foster Wallace related this parable:

There are these two young fish swimming along and they happen to meet an older fish swimming the other way, who nods at them and says "Morning, boys. How's the water?" And the two young fish swim on for a bit, and then eventually one of them looks over at the other and goes "What the hell is water?"

Critical Race Theory's objective is to develop self-awareness and a sense of the

pervasive quality of these issues. It succeeds in doing that. ☉

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Intersection *continued from page 37*

Office of Policy Development and Research, Jan. 2014, *available at* www.huduser.gov/portal/publications/housing_conditions.pdf. (hereinafter the Pettit-HUD study). The Census surveys allowed individuals to delineate their race and their ethnicity independently. Racial options included single race (e.g., AIAN alone) or multiple races (AIAN multiracial). *Id.* at 7-8. In addition, individuals could also select "Hispanic" as their ethnic identity. *Id.* at 12.

⁶*Id.* at 6-18.

⁷*Id.* at ix.

⁸*Id.* at 17. Comparatively, the AIAN multiracial population of 2.3 million represents 77% of the AIAN alone population.

⁹*Id.* at 8.

¹⁰The Pettit-HUD study used the U.S. Census Bureau typology that delineates two broad geographical categories: AIAN counties and non-AIAN counties. An AIAN county means that part of the county is AIAN area. According to HUD's Office of Native American Programs, 523 of the 3,138 counties are AIAN counties. This category is further delineated into tribal areas and AIAN surrounding counties. Tribal areas include reservations and areas of concentrated AIAN population. The 2010 Census identifies 617 AIAN tribal

areas (comprised of federally recognized reservations, state-recognized reservations, joint-use areas, tribally designated statistical areas, and Alaska Native Village statistical areas). Quite important, the Census Bureau added 31 new AIAN tribal areas in the last 10 years. Non-AIAN counties include metropolitan and nonmetropolitan areas. *Id.* at 9-10.

¹¹"Indian Country" in the Pettit-HUD report is defined as all AIAN tribal areas and the counties that surround them. "In 2010, Indian Country accounted for two-thirds of the population of non-Hispanic AIANs and more than three-quarters of the growth in non-Hispanic AIANs over the 2000s." *Id.* at x.

¹²*Id.* at 12.

¹³*Id.* at 17-18.

¹⁴*Id.* at 21. It is important to note that even within these significant trends, there are more nuanced demographic shifts. For example, while still a younger population, the AIAN population actually is aging, as evident by the decrease in the AIAN population under 18 by 4 percentage points from 2000 to 2010. *Id.* at 22.

¹⁵*Id.* at 24.

¹⁶The Community Reinvestment Act (CRA), enacted by Congress in 1977 (12 U.S.C. § 2901) and implemented by regulations, 12

CFR parts 25, 228, 345, and 195, is intended to encourage depository institutions to help meet the credit needs of the communities in which they operate. For the Minneapolis Fed, this has meant meeting the needs of the 45 tribal reservations within its district, from Montana to the Upper Peninsula of Michigan.

¹⁷I am encouraged in this Indian Country work by the recent attention to the work of Angus Deaton, the 2015 Nobel Memorial Prize winner in Economic Science, who has devoted his career to improving the data that shape public policy, including measures of wealth and poverty, savings and consumption, health and happiness. Taking advantage of a wealth of newly accessible information, Deaton assembled the fine details of individual lives to better understand overall economic trends. He also has championed the collection and use of new kinds of data, particularly about developing countries that often lack basic demographic statistics. The Nobel Prize also reflects Deaton's contribution of using such household data to trace the effect of economic policy on the well-being of community members. See www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2015.