Why is the U.S. Being Hit by Wave After Wave of Covid-19?
A Detective Story With Consequential Twists and Turns

Richard Carson, PhD

Saturday: MARCH 19, 1:30 — via ZOOM ---- Monthly Lecture

Richard Carson

Richard Carson is a Distinguished Professor of Economics at UCSD, where he has been since receiving his Ph.D. from UC Berkeley in 1985. He is past President of the Association of Environmental and Resource Economists. Carson was elected a Fellow of the American Association for the Advancement of Science for his work on climate change and environmental valuation and earlier served as Research Director for International Environmental Policy at the University of California’s Institute on Global Conflict and Cooperation.

His work on environmental projects range from the impact on the labor force of arsenic contamination of ground water in Bangladesh to tropical deforestation in Malaysia. He conducted benefit assessments for the U.S. Clean Water Act and British equivalent. For California, Carson has worked on examining policies to increase electric vehicle penetration to design of strategies to enhance urban water reliability. He was the government’s principal investigator for the economic component of damage assessments for the Exxon Valdez and BP Deepwater Horizon oil spills.

Carson’s work in large-scale forecasting led to his winning the KDD (Knowledge Discovery and Data Mining) Cup, a major international forecasting competition. He is known for his work on forecasting the demand for products including Boeing’s 787 Dreamliner and was Chief Scientist of Memetrics (now part of Accenture), whose optimization software runs on the public-facing websites of major corporations.

Carson built one of the first large-scale bioeconomic models for policy purposes that predicted recreational fishing behavior in Alaska. His work predicting (correctly) that China’s CO2 emissions would surpass the U.S. a decade earlier than official forecasts fundamentally altered the path of international negotiations on climate. Recently, Carson produced estimates of the role U.S. wetlands played in reducing property damage from hurricanes and causally isolated COVID-19 U.S. temperature response profile.

Abstract

Standard infectious diseases models suggests that in the absence of any human reaction, COVID-19 would have rapidly rolled through the United States infecting roughly 200 million Americans over the course of about six months in a single large wave before the pandemic came to an end. Obviously, this did not happen. Just like the 1918 Spanish Flu, COVID-19 attacked the U.S. in repeated waves over the course of multiple years.

This talk focuses on the forces behind why these waves happened. They include contact reduction measures like lockdowns, barrier methods like facemasks and social distancing, shifts in the mix of variants, temperature, and degrees of immunity from prior infection and vaccination, including boosters.

This story is cast in terms of (mis-)managing the pandemic as COVID-19 transitioned from its initial reproductive rate, R_0, to its ever-changing current reproductive rate, R_t. Abstracting away from some complex dynamics that are mainly important in the very early and late stages, it is possible to understand the progression of the pandemic using simple high school algebra in a way that illustrates the big picture. Along the way, we will discuss some key difficulties the U.S. faced in trying to manage the pandemic. At the end, we will address questions of current interest like “Is the Omicron variant more infectious than its predecessor, Delta, and does it cause less severe health impacts?” which are far more nuanced than nightly news commentators seem to recognize.
The Scholars Notebook is issued monthly during the academic year, except December, by the San Diego Independent Scholars.

SDIS strives to promote opportunities for active learning and scholarship, for its members and for the San Diego community.

Public service activities of SDIS include free public lectures and cooperative educational projects with other organizations. SDIS members enjoy a variety of regular discussion groups, presently via Zoom.

SDIS, established in 1982, was instrumental in the founding of the National Coalition of Independent Scholars, an organization that unites eight similar organizations and has international membership.

For more information see https://sdscholars.org or contact sdisask@gmail.com

SCHOLAR’S NOTEBOOK
MARCH 2022—Contents

Why is the U.S. Being Hit by Wave After Wave of Covid 19…………………1

About SDIS…………………………………2

SDIS Study Groups
  Biosciences Group…………………..3
  Colloquy Café……………………..4
  Physical Sciences Group …………4
  Works in Progress…………………..5
  Reading Experience………………….5
  Film Group ………………………6
  Inside Politics ……………………..7

SDIS Events Calendar ……………………8
(Includes events by North County Village and Oceanids—SDIS members are welcome.)
How can we recognize and compensate for various unconscious biases of human cognition? This question is currently being pondered by the Biosciences Group.

Rapid unconscious thought processes are essential for much of our daily living, especially for the quick judgments that allow us to respond rapidly to our ever-changing surroundings.

However, those quick judgments are often based on mental approximations that are not completely accurate and can be subject to inherent biases. Many of those biases have been studied in detail by psychologists and are covered in the two books that the group is currently reading: Daniel Kahneman’s *Thinking Fast and Slow* and Malcolm Gladwell’s *Blink: The Power of Thinking Without Thinking*.

In February, our discussion followed an agenda of quotes from those two books. Examples are:

1. “…we focus on what we know and neglect what we do not know, which makes us overly confident in our beliefs… we can be blind to the obvious, and we are also blind to our blindness.” Kahneman

2. “We have, as human beings, a storytelling problem. We’re a bit too quick to come up with explanations for things we don’t really have an explanation for.” Gladwell.

3. “…when faced with a difficult question, we often answer an easier one instead, usually without noticing the substitution.” Kahneman

4. “The illusion that we understand the past fosters overconfidence in our ability to predict the future.” Kahneman

5. “Arousal leaves us mind-blind.” Gladwell

6. “[Research] suggests that what we think of as free will is largely an illusion: much of the time, we are simply operating on automatic pilot, and the way we think and act – and how well we think and act on the spur of the moment – are a lot more susceptible to outside influences than we realize.” Gladwell

7. “People tend to assess the relative importance of issues by the ease with which they are retrieved from memory—and this is largely determined by the extent of coverage in the media. In turn, what the media choose to report corresponds to their view of what is currently on the public’s mind.” Kahneman

In March, the group will review suggestions for minimizing, retraining, or circumventing specific unconscious errors in human thought, with emphasis on proposals by Gladwell and Kahneman. We will also consider the many strengths of unconscious cognition.

Join us at 1:00 on Friday, March 11, for what promises to be an illuminating and encouraging discussion.

Dorothy Parker
COLLOQUY CAFÉ

1:30 p.m. — Wednesday — March 16 — via Zoom

With as much grace as possible under the circumstances—the confusion caused by the failure of her internet service supplier—the chairman postponed the scheduled February discussion of “grace” until March.

With service now restored, that should happen on the usual third Wednesday afternoon of the month, the 16th, at the usual 1:30.

Gracefully, of course, keep your fingers crossed.

Gerry Horwitz

PHYSICAL SCIENCES GROUP

2 p.m. — First and Third Wednesday — March 2 and 16 — via Zoom

The Physical Sciences Group continued studying the properties of the quantized real Klein Gordon field. We discovered that the spatially dependent field operators themselves act as creation and annihilation operators, for example, creating a particle at a particular point is space.

We then changed from our Schrodinger Picture, where the operators are not time dependent, but the state functions evolve in time according to the standard quantum mechanical dynamics of Schrodinger's time dependent equation, to the Heisenberg Picture. In the latter Picture, it is the operators themselves that evolve in time. The two pictures are linked by a time dependent unitary transformation which leaves scalar products and other properties invariant.

Having done that, we discovered the time dependencies of the field operator and its conjugate momentum operator, which then led to our demonstrating that the field operators obey the Klein Gordon equation, just as the classical fields do (a not unexpected result). In our next meeting we will explore "causality" (information cannot travel faster than the speed of light) for our relativistic Klein Gordon quantized fields.

The Group continues to meet every two weeks on Wed. at 2:00pm: Meetings will be March 2 and March 16.

Alvin Halpern
WORKS IN PROGRESS
3 p.m.—Thursday — March 17 — via Zoom

The Works in Progress (WiP) group met at 3 pm, Thursday, February 17 to discuss a chapter from an autobiographical work by a writer who had emigrated to the U.S. from postwar Europe and spent the next two years in graduate study at an American University. The chapter included photographs of some of the events and people mentioned in the work, some of them taken by and/or of the author, as well as some captions and textual discussions of the images.

The respondent presented a discussion of how the linguistic and the visual signs in play often commented on each other, how sometimes the images told readers more than the author actually discussed, and the various degrees of effectiveness accomplished in pairing one with the other. Members spoke about the work’s tone, which was often droll and satirical, the descriptions of various persons who appeared in the chapter, and the organization. All seemed to enjoy the submission in various ways; the author offered his own remarks on what preceded this chapter and what would come after, who his original audience had been, and added details that would amplify the text and make it more concrete for readers.

Our next meeting, scheduled for 3 pm on Thursday, March 17, will focus on the attempts of a writer, two of whose books are currently out of print, to update and reissue them through self-publication. The writer has already sent the respondent a copy of her already published work along with some ideas of how she might handle the revisions and the goals in reissuing these books. In our following April meeting, WiP will present a speaker who is knowledgeable in the process of self-publishing and will offer ideas of how to proceed in producing a work and marketing it.

Both these meetings are open to members of SDIS whether or not they are participants in the WiP Group. If interested, please contact Dorothy Parker or Ken Krauss in advance to ensure that you will receive the link to either or both of these sessions.

Ken Krauss

READING EXPERIENCE
10 a.m. — Third Monday — March 21 --- via Zoom

The last in the group’s WAR series, Tim O’Brien’s "The Things They Carried", was discussed with much emotion in February. Participants found its various short stories moving, repugnant, sentimental, sometimes unbelievable, thought-provoking, but all skillfully told.

Participants, happy to move on to GROUPS, a less freighted series, are reading for the March 21 session “The Algonquin Round Table New York: a historical guide” by Kevin C. Fitzpatrick. Sometimes called the Vicious Circle, Dorothy Parker and such opinionated and talented cohorts as Robert Benchley and George S. Kaufman began in 1919 and continued for ten years, at first casually then regularly six days each week, to meet for lunch at the Algonquin Hotel, all the time sharpening their wit.

Reading Experience meets on the third Monday of each month at 10a.m.
Looking ahead, the April selection will be “Our Crowd” by Stephen Birmingham

Gerry Horwitz
FILM GROUP

10 a.m. PROMPTLY — First Wednesday — March 2 — via Zoom

The Film Group will meet Wednesday, March 2 at 10 am to view *Ed Wood*, the 1994 black and white biopic directed by Tim Burton, which has been called one of the best Hollywood biopics ever made. Starring are Johnny Depp as Wood and Martin Landau (winning an Oscar for Best Supporting Actor) as Bela Lugosi. Added treats in lesser roles are Bill Murray, Sarah Jessica Parker and Patricia Arquette.

Wood, known as the “Worst Director in Hollywood,” was an energetic 1950s director who loved every single little thing he did in films and was seemingly unaware of his awfulness. He was a dreamer. He aspired to be another Orson Wells. Wood made odd films, filled with errors and bad acting, and his films were booked into cut-rate theaters, drive-in movies and the like. Wood was a proud transvestite, and a close friend and supporter of the troubled and morphine addicted Bela Lugosi.

Burton pays tribute to Wood and Lugosi in a movie that is well worth watching.

In February we continued our bi-monthly series of Hollywood musicals as we watched Fred Astaire and Ginger Rogers dance into a somewhat precarious romance in RKO's 1934 *The Gay Divorcée*. The witty script and beautifully directed dance sequences (choreographed by Hermes Pan) sizzled in the sparkling black-and-white photography. In addition there were hilarious performances by Eric Blore, Alice Brady, Eric Rhodes, and Edward Everett Horton, in skimpy bathing costume, who sang and tapped with a very young Betty Grable in the number, "Let's Knock Knees."

Add to this such classics as "The Continental" and Cole Porter’s "Night and Day," and it would be difficult to find a better introduction to Fred and Ginger's on-screen love. Although Dorothy Parker--of the Algonquin Roundtable--said of the pair, "He gave her class and she gave him sex," one viewer in the group estimated that there was probably more class than sex between them. As for Ginger Rogers, she often repeated that she did everything that Fred did, "except backwards and in heels," which evened out their partnership.

In April, we look forward to the film of the first "serious" musical comedy, which changed the genre on Broadway and somehow, in spite of its more serious content, managed to become a hit that influenced virtually all shows that followed it.

Barbara Heckler and Ken Krauss
INSIDE POLITICS

10 a.m. — Second Saturday — March 12 — via Zoom

Our next SDIS Inside Politics Zoom Study Group meeting will be held on Saturday March 12, and the Agenda will almost surely be dominated by what President Biden is calling the beginning of an invasion of Ukraine by Russia.

After stationing over 100,000 Russian troops on the Russian border with Ukraine, and completely surrounding Ukraine on three sides, Russian President Putin issued a decree stating that two sections of Eastern Ukraine dominated by Russian speaking separatists are now independent states, and are no longer part of Ukraine.

The next day Putin ordered the Russian military to cross over into the two new states, to protect the separatists from Ukrainian military forces. Included in the two new states are both areas which have been under the control of Russian leaning separatists, and areas which have been under the control of the Ukrainian government.

President Biden then declared major sanctions against two specific Russian banks, Russian sovereign debt, and oligarchs and their families, with more sanctions to come if Russia increases its invasion of Ukraine. Before issuing his decree creating these two new states out of Ukrainian territory, Putin gave a televised unscripted speech stating in essence that Ukraine has always been part of Russia and was erroneously given its own country by mistakes made by unknowing Russian leaders.

During our Study Group meeting on March 12, we will discuss what may prove to be an event changing all of Europe, if Russia's actions regarding Ukraine remain a permanent change in the world as we know it. How will the West respond to this Russian aggression? Will Russia be satisfied with the two new states it has attempted to create, or will Russia attempt to take over all of Ukraine, and attempt to install a puppet government in Kiev, the capital of Ukraine?

Will the current government in Ukraine set up a government in exile somewhere else in Europe? Will the U.S. support an insurgency against a new Ukraine controlled by Russia? The number of questions remaining unanswered at the time of this writing is unlimited, and we will attempt to answer, or at least discuss, as many of these question as possible during our meeting.

If you are an SDIS member but not currently on our Zoom mailing list for this class, and would like to participate, please contact me and I will gladly include you in our wonderful discussion group.

Al Korobkin
## March 2022

SDIS meetings and events listed are via Zoom

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Film Group</td>
<td>10:00 a.m.</td>
<td>Physical Sciences</td>
<td>2:00 p.m.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>.</td>
<td></td>
<td></td>
<td>Biosciences</td>
<td>1:00 p.m.</td>
<td>Inside Politics</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Colloquy Café</td>
<td>1:30 p.m.</td>
<td>Works in Progress</td>
<td>3:00 p.m.</td>
<td>SDIS March Lecture: Richard Carson, PhD</td>
<td>1:30 p.m.</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>2:00 p.m.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Reading Experience</td>
<td>10:00 a.m.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td>April 1</td>
<td></td>
</tr>
</tbody>
</table>