Tribute to the Scholarship and Legacy of Bear Braumoeller

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Bear Braumoeller died in May 2023 while on a yearlong sabbatical at the Nobel Institute in Oslo, Norway. His sudden death surprised and shocked each of us, and it left professional and personal holes at Ohio State University and across our fields of study. We remember Bear as an eminent scholar whose work was recognized by his election as a Fellow of the American Association for the Advancement of Science, his selection as the Baranov and Timashev Chair in Data Analytics at Ohio State University, and the publication of two excellent books with the Cambridge and Oxford University Presses, respectively. We are honored to introduce this tribute as two of Bear’s colleagues and, in the case of Andy Goodhart, as one of Bear’s last graduate students. It contains memories of Bear from several of his friends and colleagues who remember him for his immense intellect, his warm and supportive collegiality, and his appreciation for good food and drinks.

Bear was an intellectual giant in the quantitative study of international relations. He believed in the power of math and statistics to help researchers understand dynamics of conflict and cooperation. His work on causal inference in political science, testing asymmetric hypotheses, and modeling interactions, represent just three examples of his contributions in this area. Tanisha Fazal is undoubtedly right when she observes that “We are fortunate to have many excellent international relations scholars in our discipline, several of whom are contributors to this forum. We also have many excellent methodologists. Bear was, unusually, both.” Bear had broad interests and a pluralistic sensibility, so he was never one to retreat into any particular methodological or intellectual archipelago. He sought out knowledge, insights, and intellectual exchange from colleagues who brought different priors and methods to the study of international politics. Jennifer Mitzen remembers that “Bear relentlessly modeled respect for theoretical and methodological pluralism through his own engagement with the work of scholars that was very different from his own.” And Ayşe Zarakol notes that the breadth of Bear’s interests “came from both his confidence about his own research and his focus on substantive matters rather than the superficial shape of things.”

Bear’s desire to learn from diverse perspectives led him to create the MESO (Modeling Emergent Social Order) Lab at Ohio State, which uses social science, computational network modeling, and history to study the international order. Events he hosted with the US Military Academy at West Point and with institutes

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across Ohio State brought together practitioners of international politics with theorists, historians, and network scientists with the goal of forging a better understanding of international conflict and order and to enable better policy decisions. For Bear, the goal was always to be relentless in trying to triangulate the truth while being gentle with others who were engaged in that process.

Bear took an interest in others professionally and personally, mentoring and supporting them. He held positions of responsibility—professor, advisor, graduate studies chair—but he often invested time and effort in people when his professional duties didn’t require it and when it wouldn’t bring him any personal benefit. Sarah Croco recalls in her contribution here how Bear went out of his way to be inclusive at conferences, and we can only echo that experience and how important it can be for young scholars who don’t really know what they’re doing but want badly to do it right. Bear was also collaborative with those who approached similar topics but from different angles. Tanisha Fazal notes here that she and Bear approached the decline of war thesis somewhat differently, and he engaged her work with characteristic openness and generosity. One of the things that was exceptional about Bear was his ability to be intellectually ambitious while supporting others and staying open to competing approaches.

Bear’s ideal vision of the academy was one in which intellectual cross-pollination (and good food) brought diverse scholars together to share their work, creating something bigger and more collegial in the process. In his essay Andrew Bennett remembers one such effort to work across the methodological seams of the field, not just to “tolerate” scholars on the other side of the divide but to build a community that is bigger and richer for its diversity. He writes that Bear provided “the most generous, thoughtful, and productive feedback I have received in three decades,” and this initial interaction turned into a collaborative effort to explain how case studies, statistics, and formal modeling could be productively combined. This “exemplified academia at its best, as a cooperative endeavor in search of shared knowledge, a win-win enterprise.”

There is much that can be written about someone who was as accomplished and kind as Bear. The contributions to this volume provide a few memories of this extraordinary person and the impact he had on the field and those around him. We have all been enriched by our relationships with Bear and hope this tribute will serve as a kind of collective memory of the impact he had.

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Rarely, if ever, has someone made a first impression on me that was as strong and positive as Bear Braumoeller did the first time I met him. Even though it was over two decades ago, I remember distinctly how we met at the 2002 annual conference of the American Political Science Association (APSA). I was presenting a paper on how to combine formal models, statistical analysis, and case studies, on a panel on multimethod research. The room was packed, mostly with graduate students, to the point that many were standing in the back of the room. I attributed this not so much to the illustrious reputations of the panelists, but to the fact that while PhD students’ advisors were telling them they should do multimethod research, very few methodologists at the time had written about how to do such work.¹

The reputational stakes were thus higher than usual, and I was nervous when the panel’s discussant, whom I had never met, stood to critique my paper. Would he be a quantitative methodologist with low regard for qualitative work (a phenomenon that is thankfully much rarer now than it was at the time)? Would he misunderstand my paper by viewing it only through a frequentist prism, even though, in my view, the underlying logic of case study methods is Bayesian? Would he harshly criticize my paper, which was an ambitious first draft that I had not yet run by any colleagues for feedback?

As it turns out, the comments that I had anticipated with trepidation quickly proved to be the most generous, thoughtful, and productive feedback I have received in three decades of APSA conferences. The discussant, of course, was Bear Braumoeller, and in a friendly and upbeat manner he conveyed insightful and remarkably constructive suggestions on exactly how to improve the paper, which he later followed up with detailed marginalia. I immediately asked him if he would join me as a co-author on the paper, something I have not done with any APSA discussant before or since. To my great pleasure and good fortune, he agreed.

Bear’s key suggestion, which entirely reframed the paper, was to address the view held by many quantitative, formal modeling, and qualitative scholars that their very different methods rested on incompatible epistemologies, which would make multimethod work deeply problematic or even impossible. Bear’s contrasting view was that at the most basic epistemological level, all research methods involve comparing the theories in our heads to evidence in the world. While there are indeed deep and important differences among quantitative, qualitative, and formal methods, he argued, researchers in each tradition often make implicit or explicit default assumptions that make their work more tractable, and the different ways they do this make their methods appear incompatible. Once one unpacks these convenient

¹ I discounted the “prominent panelists” explanation because I once taught a summer course that had an unusually high proportion of students from Mexico. I mistakenly assumed that this meant my academic work was highly regarded in Mexico, but it turned out that many of those who took my course did so because one of the students was Felipe Juan Pablo Alfonso de Todos los Santos de Borbón y Grecia, better known then as the Prince (and now King) of Spain, whom they hoped to meet.
assumptions, Bear maintained, it is apparent that qualitative and quantitative methods are compatible on a more fundamental level.

Our co-authored paper thus examined the default assumptions that qualitative, quantitative, and formal modeling researchers typically make regarding the sources of unexplained variance, the meaning of outliers, parameter values, human motivations, functional forms, time, and external validity. We argued that these working assumptions are often not necessary for each method, and that they can be relaxed in ways that allow multimethod work. Our paper also discussed the comparative advantages of different combinations of formal, statistical, and case study methods for various theory-building and theory-testing research objectives. It then used prominent examples of multimethod research to illustrate these advantages and offered methodological advice on how to combine different methods.

There was only one problem: we both got distracted by other projects, lost momentum, and never sent the paper to a journal for review. Fortunately, a few years ago, Bear pointed out to me that although it was not published, the paper, which we presented at a later APSA conference, had over 100 citations on Google scholar, more than many of our own sole-authored articles in peer-reviewed journals. Bear suggested that we make it available by posting it on the open access web site Arxiv, where it resides today.¹

Bear put his own advice about multimethod work to excellent use in his most ambitious project, his book The Great Powers and the International System: Systemic Theory in Empirical Perspective.³ Using both quantitative analysis and case studies, Bear convincingly demonstrated that ideological changes or power imbalances alone are insufficient to prod states to change how actively they sought security through arms and alliances. In his case study of the end of American isolationism in 1940, for example, the US did not increase its defense sending substantially as German ideology became more threatening in the 1930s. America sharply increased its military capabilities substantially over a year before the attack on Pearl Harbor, however, after the Nazi takeover of Austria, Czechoslovakia, and Poland in 1939 gave Germany the capability to act on its ideological goals. Conversely, Bear argued, favorable ideological changes in adversaries are insufficient to get states to reduce their security-seeking efforts until those adversaries credibly constrained their military capabilities as well. This is clear in Bear’s case study of the end of the Cold War, wherein the US changed its defense policies not in reaction to Soviet leader Mikhail Gorbachev’s changes in Soviet ideology in the late 1980s, but in reaction to his unilateral reduction of Soviet arms in Europe beginning in late 1988 and his non-intervention in the revolutions in the Warsaw Pact countries in 1989. This is the most sophisticated and convincing combination of quantitative and qualitative methods I have read.

Bear authored many more applications of and contributions to research methods during his career. The most cited of all his works is his 2004 article in International Organization on hypothesis testing and

multiplicative interaction terms. Here, he demonstrated through both mathematical logic and numerous examples that political scientists often misinterpreted their results when they included interaction terms in their models. A partial list of his other notable contributions on research methods includes articles on causal complexity, methods for testing claims of necessity and sufficiency, the importance of considering effects on the variance of dependent variables as well as on their means, and the general “promise and perils” of statistical analysis in international relations.

But Bear was—we all are—much more than the sum of his academic work, as important as that was. Bear was a “mensch,” a term that has many dimensions—a person of integrity, honor, someone to admire, a good person to have as a colleague, friend, or family member; in short, the very embodiment of a good person. Unfortunately, I never had the privilege of meeting Bear’s family, and most of our interactions after 2002 were by email rather than in person. Sadly, I never got to experience his famous culinary expertise. But none of our interactions changed my first impression: that Bear was the kindest and most generous person you could ever hope to meet. He exemplified academia at its best, as a cooperative endeavor in search of shared knowledge, a win-win enterprise rather than a zero-sum game. One of the worst-kept secrets in academia is that we all do a lot of work for free or nearly free—reviewing journal articles and book manuscripts, writing tenure review letters, serving as discussants on conference panels, etc. Bear excelled at all these, and judging by the outpouring of praise from his many students after his death, he was an outstanding teacher as well. As a colleague once told me, “To influence the field for a few years, write an article. To influence it for a decade, write a book. To shape it for a generation, teach a student.” Bear influenced the field for a generation, and he is sorely missed.

I went to college with my heart set on being a film major. At the time, students at the University of Illinois couldn’t declare film as a major right away, so I enrolled as a general-education student and took a variety of classes to meet the requirements.

One of those classes was POLSCI 386: International Conflict. Nobody knew anything about the professor—he was a new hire, right out of grad school. We just knew that he had a strange first name and a last name nobody was quite sure how to pronounce. I can still remember the first day so clearly when he walked in the room, with his towering presence and deep, booming voice. “What’s with the name?” someone asked. Bear furrowed his brow and replied, “Hippie parents. The ’60s. California. Any other questions?” There were none.

In retrospect, it seems obvious that I would major in political science. Even as a kid, I had been fascinated with the drama of politics. I loved elections, conventions, and remember watching with rapt attention the first Gulf War unfold on CNN. But at no point did I ever consider it could be an occupation.

That all changed one day in Bear’s office hours. I went to his office hours a lot because I loved the class so much. It was my first time thinking about theories of why states behave the way they do, why they fight, how they make peace—I loved it all. And Bear was such a kind, patient soul, who put up with me asking endless questions.

    At one point I blurted out, “I just wish political science could be a job!”

    Bear swiveled in his chair to look at me straight on, with a puzzled expression.

    “Sarah, what do you think my job is?”

    “Teacher” I replied.

    “Well,” he chuckled, “That’s part of it. But who do you think writes all that stuff we read in class? Who comes up with all those theories?”

    I shrugged and replied, “I’m not really sure.”

    Bear’s trademark smile spread across his face. “Political science professors. A big part of my job is coming up with theories about why states act the way they do and writing about it.”

While it sounds impossible to be able to pinpoint a moment where your life changed, for me that conversation with Bear was it. From that point on, my goal was to be a political scientist, just like Bear. And Bear was with me every step of the way. He let me take his grad class and he served as my thesis advisor. He took every opportunity to help me build research skills, taking so much time and doing so many things he didn’t have to do, all with the goal of helping me.
For the paper in his grad class, I wanted to look at the relationship between democracy, territorial disputes, and enduring rivals. He suggested I try a Chi-square where I looked at enduring rival country-years and a random selection of country-years for non-rival states. I had no idea what a Chi-square was. Nor did I have any clue how to pick a random set of non-rival states. “There’s no right or wrong way,” Bear said, “Just be sure to write down how you did it.”

Determined to do my first major piece of research correctly, I went home and cut out 193 pieces of paper, one for every country in the world, and placed them in a shoebox. I got another shoebox and did the same for all years between 1815 and 1998. I enlisted my roommate to help me. We spent some time drawing countries and years, discarding any that were rivals at that time. In the end, we had a list of non-rival country years. (How I figured out the Chi-square is a story for another time, but it involved multiple clueless undergrads and some truly painful Excel spreadsheets.)

Having completed my analysis, I went to Bear’s office. As I explained my dataset building process he sat there smiling me. When I was done, he said:

“So, you’re telling me you used two shoeboxes. And bits of paper. To build a list of non-rival state country years.”

“Yes.”

“And you and your roommate shook the boxes each time before you drew each piece of paper?”

“Yes. We made sure to shake the boxes at least ten times. We wanted to make sure it was random. It took us a long time to get all the non-rival observations.”

“Yes,” he replied, somehow with a straight face, “I imagine it did.”

“Did I do it right? Did we need to shake the boxes more?”

“No,” Bear said, “I understand your process. Just make sure you write every step out. That’s an important part of the research design.”

“You got it, Professor B!”

I walked out of his office, proud of myself and excited to finish the paper.

I share this story because, for me, it illustrates Bear’s remarkable kindness and his profound gift for teaching. He could have laughed at my ridiculous process. He could have rolled his eyes and said, “Why didn’t you use Excel’s random number function!?” But he didn’t. He knew I was excited to do my own research but that I had no clue what I was doing. He knew that he could always teach me how to use Excel to do it more efficiently later (which he did). He knew at that moment that he had a chance to make a young student feel like she could do real research. And from every interaction we had together from then on, he continued to do just that.
Bear and I overlapped at Illinois for the precise window where he could make the largest difference, during my junior and senior years. In 2000, I headed off to Ann Arbor to start graduate school at Michigan, based in no small part on his encouragement, and he went off to teach at Harvard. The summer after graduation I worked for Illinois’ orientation program. One day I walked over to his office as he was packing to leave for Boston. In my head, it was a big moment. I had no idea how small the profession was and that we’d regularly interact with one another. What I did know then was that Bear had set my life on a very different course than the one I had planned on when I started college. And that I was profoundly grateful to him and would miss having him as a teacher. I stuck out my hand when we parted and clumsily said, “Well, it was nice knowing you.” Bear laughed, shook my hand, and said, “It’s not like that. It’s more like see you later.”

And I did see him later. Bear was an informal mentor for me during graduate school, answering every email with his unwavering patience, kindness, and understanding. He didn’t have to do that. He had no obligation to care. But he did. Every time. And while I loved graduate school, it’s hard to overstate just how much Bear’s support meant to me during those years. Because he’d known me from my “shoebox” days, I felt safe confiding my fears and anxieties about the PhD process to him. He understood graduate school, but, more importantly, he understood me. One conversation really sticks with me. I was frustrated with my dissertation and felt like I was forever spinning my wheels, running into problem after problem. Bear said:

“The thing about you, Sarah, is that you run into a lot of walls before you find the doorknob…”

“Um, thanks?”

“Don’t be offended. We all run into walls. All the time; it’s the nature of the business. But the thing about you is that you always get back up and keep looking for the door. And not everyone does that. And that’s what matters.”

“OK.”

“Just keep doing that. I know you’ll always find the door.”

His faith in me had an immeasurable effect on me as a scholar. Knowing that Bear believed in me was transformative. I trusted him so completely that I never doubted I could finish graduate school and become a professor. If Bear said it was true, it was.

Bear did so many things for me as a young scholar, that it is hard to name them all. But here are a few that stand out. Every time we were at a conference together, he took me to lunch. A simple gesture, yes, but a powerful one. Going to lunch with colleagues is a big part of the conference experience, and Bear made sure I wasn’t left out of it. It helped me feel like I belonged. When he passed, I was struck by how many tributes on social media to Bear echoed this dynamic. So many people recounted small gestures from Bear that made them feel included in a profession that can often feel isolating. It could have been anything from him showing a new colleague his favorite places to eat in Columbus, to sharing one of his famous hand-crafted cocktails, to simply making a point of asking about their work or how they were doing. Bear made so many people feel like they belonged.
Bear also made a point of coming to my conference presentations. I remember my first Peace Science meeting; I was a second-year graduate student presenting a paper and was deeply intimidated by the crowd of well-known scholars. Bear sat a few rows back on the right, staring wide-eyed and nodding at me the whole time I was speaking. I don’t think he blinked once. When I was done, he gave me the thumbs up sign with a huge smile on his face.

He also always treated me as a peer, even when we were at very different career stages. I can still remember how it felt when he sent me a paper and asked for my comments on it when I was in my first year of grad school. I am certain that my comments did not improve the paper in any substantial way. But it made me feel so amazing that he asked me for my feedback. That he valued my opinion. And while we never talked about it explicitly, I think that was Bear’s whole reason for sending it. He knew how much those gestures mattered and how much they could do for a young scholar’s confidence in herself. He always knew the exact right thing to do to help other people.

Eventually I finished grad school and got a job at the University of Maryland. I was asked to run the IR speaker series, and the first person I invited was Bear. I was so excited to show him my office and the campus. To show him that I’d made it from the person who used shoeboxes to make a dataset to a professor who knew what she was doing. And I knew from his warm smile that he was proud and that he knew what that visit meant to me. Bear supported me through every step of the journey to tenure, always willing to read a manuscript or offer advice about professional quandaries. A few weeks after he passed, I was promoted to full professor. It was a bittersweet moment, as he would have been one of the first people I would have called. He likely would have wryly downplayed it, as he often did when I passed academic milestones. Probably saying something along the lines of “Well, this is the least surprising outcome, ever” or “Of course you got it.” But I also know he would have been smiling, and that both of us would have enjoyed a laugh over what a crazy ride it had been since I sat in his office hours in Lincoln Hall all those years ago.

The last thing Bear and I did together was a class at the height of COVID, when all of college courses went online in the fall of 2020. Bear had called me earlier that summer to pitch an idea. “OK, so I know this sounds crazy, but hear me out. What if we got a whole bunch of faculty to pool their students with ours in a big Zoom room? And we’d all take turns presenting research every week, and you and I would be the hosts.” I immediately said I was in. That fall, with several other colleagues from around the world, we kicked off our class of over 700 students.

For what seemed like a harebrained idea at the start, it’s impossible to overstate how big of a hit that class was. At every Wednesday Zoom session, students were engaged, active participants. But I think Bear and I had the most fun of all. While getting a dozen faculty to record lectures, send readings, and show up for a Zoom during a pandemic was an exercise in herding cats, we loved every second of it and both enjoyed the chance to work together. We looked forward to the Wednesday night Zoom sessions where we would often laugh so hard, we’d cry.
I think students could sense that this class was special. Those who were at home would cast the Zoom sessions to the family TV and watch with their parents and siblings; those on campus would watch with their roommates. When we heard about this trend, Bear saw an opportunity. “We need to find a way for grandparents who are stuck at home to get in on this, too. If they could talk to their grandchild about a class the kid is taking in college, they might feel less lonely.” So, we told our students to share the Zoom link. Many grandparents took us up on this, and thanked us for letting them join. Once again, Bear’s instinct to be inclusive had allowed others to feel they belonged and made their world a little brighter.

Many tributes will highlight Bear’s amazing intellect and his numerous contributions to the field. This is as it should be. Bear was, without question, one of the smartest people I have ever met. His mind seemed to operate on a different plane than others, and he could write about complex things in such a clear and elegant way. But I think what he will most be remembered for is the quiet, gentle kindness he always showed to others. Political science lost a great mind when we lost Bear, but we also lost an wonderful, caring heart.

I met Bear when I was 19. In the 25 years that have passed between now and then he was first my teacher, then my colleague, but, most importantly, he was my friend. He knew me longer than anyone else in this discipline, and played a fundamental role in making me the professor and person I am today. I know that not everyone has someone who comes into their life at a critical point, and who knows how to do and say everything right to help them grow into the person they were meant to be. But Bear was that person for me. And I miss him terribly.
Bear and I first met when I was a postdoctoral fellow and he was on the faculty at Harvard. I remember that he very kindly took me to lunch, and that I was more than a bit dizzied by his methodological prowess. But he was busy being junior faculty and I was recovering from my dissertation, and so our paths did not cross frequently that year.

But his name kept popping up in journals I would read. We are fortunate to have many excellent international relations scholars in our discipline, several of whom are contributors to this forum. We also have many excellent methodologists. Bear was, unusually, both. As a reader, I especially appreciated his respect for his audience. He did not talk down to those less attuned to the statistical and modeling sophistication of his work, but took us through it with kindness and humor. At the same time, his contributions—to agent-based modeling (which remains in the methodological backseat, despite Bear’s efforts) and statistical inference (here, I am thinking of his discussion of how to interpret interaction effects)—to methods in IR made the whole field better.

While I followed Bear’s career from afar, our work began to intersect more as we developed different, complementary responses to the claim that war was in decline. My own argument was (and is) that the empirical basis for the claim that war is in decline is based on a decline in fatalities—and that, with dramatic advancements in military medicine, casualties have shifted from the fatal to the nonfatal columns. Bear’s argument is, unsurprisingly, much more statistically savvy. After first bringing a raft of evidence to bear to demonstrate the absence of a declining trend in warfare, he suggests that it is relationships both within and among international orders that is most informative regarding the rates of warfare. Here, Bear combines a statistician’s appreciation of the importance of chance and contingency with an equally deep appreciation of history. As a result of being on the same side of this debate, we found ourselves on (mostly virtual) panels together over the past several years.

In this context, two things strike me about how Bear approached the enterprise of research. First, he was extremely generous. For example, when he read my work on military medicine, rather than responding by promoting his own argument, he complimented me on following through on a perspective he hadn’t quite figured out how to develop (probably because he was looking for an elegant solution, while I brute-forced my way through).

Second, though, Bear’s own work on this question is exceedingly provocative. When I first read Only the Dead, I was filled with questions. For example, what if medicine hadn’t improved the way it had? What might have been the consequences for the kind of statistical autopsy Bear conducts in the book? (109)


\(^2\) Braumoller, *Only The Dead: The Persistence of War in the Modern Age* (New York: Oxford University Press).
Especially in connection with his award-winning first book, *The Great Powers and the International System*; how much of the trends in warfare did he attribute to structures versus agents? Much of his work focused on interstate war and international relations in Europe. How might he have conceived of it traveling to other parts of the world, both today and in the past? And so on.

I thought, of course, that I would have time to ask Bear these questions. While I always found him somewhat intimidating, I had fully planned to make time at a conference for a meal or a drink to begin this conversation. We did spend a little time with each other a few years ago at a private pop-up chef’s dinner, but our attention was (in what I have come to learn, in true Bear fashion) very much on the food. Rereading his work, it is clear to me that he would have been happy to have these conversations; a distinguishing feature of Bear’s scholarship is its openness to challenge, and to the possibility not only of extension, but of being wrong. To my mind, these qualities are hallmarks of being a good scholar, and qualities we should all aspire to develop.

We are all poorer for having lost Bear. His intellectual curiosity opened many doors. One way to honor his legacy is to walk through them, humbly, with something approaching his honesty and rigor.

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Bear and I met when I was working at the Pentagon and applying to graduate school. I wanted to shift from a policy career to an academic one, so that I could study the questions of international order that I found so challenging when making policy recommendations. Everyone in Washington seemed to talk about the international order, but few agreed on what they meant by it, and fewer still seemed to have a firm idea of how it functioned or how we might act to shape it in useful ways. I had ideas and opinions and wanted to find a place where I could devote sustained, rigorous attention to the subject. Bear took a chance on me even though I was seven years out of my undergraduate studies and my advisor, Patty Weitsman, could not speak for me. (She, tragically, also died far too young). But I had been spending my days puzzling over how international orders function (and what one might do about various forms of dysfunction), and Bear’s thinking was developing in a similar direction. He called me out of the blue one weekend, and our conversations quickly made it clear that I could do my best work with him. Meetings that were slated for 60 minutes went long over time, and we developed an easy rapport as we argued about how to define the international order, speculated about what to expect from it empirically, and strategized how to study it.

Although I knew that I wanted to focus my research on the international order, I hadn’t yet developed a plan for how to study it, and I explained (a bit apologetically) that I didn’t like math. Bear laughed out loud and said something to the effect of “I don’t like it either!” I had naïvely feared that Bear, as the author of impressive work on political methodology, would be more focused on methods than on the theory and substance of the politics that inspired me to go to graduate school in the first place. Naïve is the right word, because the hallmark of Bear’s work was a methodological sophistication that was always in the service of understanding important questions about political life. He drew on an eclectic mix of research approaches and was always motivated by a desire to ask big questions and test big ideas. Bear had a deep appreciation for the work of historians, network scientists, and sociologists (to name just a few of the disciplines he drew on), and that led him to do work that cut across the social archipelagos that informally structure the social science research community.

As an advisor, Bear was supportive of his students pursuing whatever kind of training would best support their intellectual development. He gave us wide latitude while staying engaged in our development. In hindsight, I think Bear did an unusually good job of navigating a difficult pedagogical tension. Graduate school trains people (who are used to knowing the “right answers”) to think differently and it often forces students through steep learning curves. Students need this guidance but also space to develop their thinking. An important part of Bear’s mentorship was his ability to guide our process of discovery without trying to determine what we found. He was not trying to change the work of others into a version of what he would have done, nor did he critique competing approaches to clear the way for his own. Bear aimed to help us develop our work on its own terms, and he used his expertise to suggest connections that we might have missed. Although he provided a model that many of us sought to emulate, Bear was also careful to treat mentorship as an investment in his colleagues and not an effort to promote the kind of career he had pursued. He often noted that he was not sure that trying to follow his path was a model for success. He had
done what he thought was useful and interesting, and it had worked out well for him. “Your mileage may vary,” as he often told us.

Graduate school can be an isolating experience as students dig into material that everyone around them seems to already understand, and studying how to study sometimes seems to edge out a focus on the substance of politics. This can lead students to try to get the process over with quickly so they can get on to the “good stuff” once they have cleared these hurdles. But Bear was so inclusive and adept at connecting the training of graduate school with the political substance that motivates each of us that graduate school was a real pleasure. Classes with him, discussions in his office, arguments over Teams or Slack, and so many meals at places he knew (like the tiny banh mi restaurant he insisted we go to in San Francisco) meant that this was already the “good stuff” of academic life.

When I arrived at Ohio State, Bear was beginning to focus on international order with his book *Only the Dead: The Persistence of War in the Modern Age.* The title evokes the philosopher George Santayana’s claim that “only the dead have seen the end of war” and responds to the idea that humanity has begun to put its proclivity for massive, organized violence in the rearview mirror. The idea is popular, intuitive, and normatively appealing. After all, we want to believe we can make progress and it has been almost 80 years since the last great-power war. The theory also has some famous and well-placed advocates. Any one of these reasons could have led Bear to avoid the issue or approach it polemically. Instead, he worked as the detective he trained his students to be, turning the issue over to examine it from all angles, picking the best methods he could find (or build), and not flinching from intellectual disagreement while treating his intellectual counterparts with respect. Bear gave competing views a good-faith look and acknowledged that the issue is genuinely difficult to study.

A key finding of Bear’s final book is that rates of conflict initiation do not exhibit a consistent downward trajectory. They do, however, vary considerably by historical periods that have traditionally been treated as discrete periods of international order. This suggested not an inexorable improvement in the human condition (and a cause to celebrate), but rather a set of contingent gains that were tied to specific international conditions and practices (and a cause for digging deeper). Bear took this finding as a call to build a new research program for understanding international orders. He recruited students interested in these issues and established the Modeling Emergent Social Order (MESO) Lab at Ohio State. That effort attracted major funding from the National Science Foundation and the Carnegie Corporation of New York, among others, and convened a community of people who are committed to understanding the relationship between international order and conflict.

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No remembrance of Bear is complete without recalling his love of good food, whether it was simple or elevated, and the joy he got in sharing it with others. When I first arrived in Columbus, Bear offered to take me to lunch and mentioned several restaurants I might enjoy. One was in the Short North Arts District in a fashionable restaurant where Bear knew the chef. Others had specific dishes that he thought were especially well done. But what caught my attention was his description of Nepalese dumplings at what turned out to be a food stall in an international grocery store wedged between an auto parts store and a pawn shop. We sat at a counter with our backs to grocery store shelves eating momo dumplings in rich sauce and talking through the ideas I had for a dissertation. For someone who was raised on diner food and who loves travel, it was perfect. It also captured an ethos that I have come to associate with Bear. He was interested in good food and good ideas no matter where they came from, and he did not stand on ceremony.

Those who knew Bear have countless stories of his recommendations for wonderful things to eat and drink. I remember that when I described a delicious plate of fahsa stew that I had enjoyed at a Yemeni restaurant in Dearborn, Bear got very excited and recalled his favorite places to eat this uncommon dish. When I traveled to Berlin, Bear had recommendations for restaurants that I had to try. Finally, like so many Americans, I took to baking bread during the pandemic. When I mentioned that I was turning the leftover scraps of heavy sourdough rye into kvass, Bear recalled drinking kvass in Russia, and we enjoyed some of this sweet, fizzy, bread-flavored drink together. Bear cultivated a sharp intellect and a broad palate, and it was a pleasure to learn from both of them.

It is an unfortunate honor to write a remembrance of someone like Bear. Unfortunate, of course, because we have lost a great colleague and friend. But it is an honor because it allows us to recall how fortunate we have been to have his influence enrich our lives. Not everyone we encounter makes a lasting impact on us—or cares to when they can. Bear seized these opportunities to lift up the people around him and build a community. His generosity and openness made the field a better place to work, and he encouraged us to be better versions of ourselves in the process.
I first met Bear Braumoeller during the admitted student visit at Ohio State on 30 March 2007. He was in his turtleneck era; I was in a splint because I had injured myself while deglazing a chicken, which I would later learn was a very Bear-approved way to injure oneself.

Like almost every grad student at Ohio State, Bear was who I wanted to be when I grew up. This is partially a function of the intense nature of advising relationships in grad school, which, when they go well, can be totally transformative. It was also a function of my own quirks as an especially deferential graduate student, when I was so eager for my advisors’ approval that I wore a different shirt every time I met with them, just in case they were keeping track of these things. (It turns out they weren’t.)

But it was also because Bear offered a uniquely appealing vision of what it meant to be an academic. He was brilliant, but he was also a fully three-dimensional person who never mistook his CV for his identity. And he was just close enough to us in age (he was the only advisor I was bold enough to call by his first name, greatly concerning my parents, who to this day continue to refer to him as “Professor Bear”) that it felt like with enough time and effort, one day we could be like him too.

Bear had strong aesthetic preferences he imbued in his students. I spent much of grad school in his office talking about fonts, and at his home talking about food. When he was in his vest and rimless glasses era, he once gave a “preparing for the job market” talk consisting largely of comparison photos of suit jackets. My first year of graduate school, he invited the IR graduate students over for Memorial Day to serve us a goat shoulder he had been smoking for 18 hours. He infused liquors in his spare time, and designed the drink menu for at least one Columbus restaurant. The bar at the stunning midcentury home that he, Kristen, and Molly shared had at least 80 kinds of bitters. He was a celebrity in the Columbus food scene, and there was a time when you could go into any restaurant in Columbus with him and chefs would come out of their kitchen (or food truck) to greet him by name.

This is to say that Bear had incredible taste, which gravitated towards complex and unexpected flavors, like offal-themed dinners, or a cocktail from the Rossi with pickle juice in it. He taught us about the importance of asking big questions, but he also taught us what “silent stills” were—rare bottles of whiskey from distilleries that have long since shut down.

Early in the pandemic, when Bear was in his Zoom happy-hour era, he found out that my partner liked martinis, and sent us a spreadsheet titled “Perfect-martini.xlsx,” a 12x12 matrix where each row referred to a different vermouth, each column to a different gin, and each cell had the score Bear assigned each combination, on an ordinal scale from 1-5. The spreadsheet is quintessential Bear, not only in his sly tasting notes (“It’s not a terrible martini, but it’s a considerable distance from a good one,” he writes beside Tanqueray and Carpano Dry, which is a Bear sentence if ever you saw one), but in his painstaking attention to detail, and of course, his joy and generosity in sharing these experiences with others. It also evokes his academic work: La Quintinye Royale Blanc and Tanqueray, he writes, is “a rare case in which an excellent
gin and lovely vermouth combine to produce a terrible martini”—an instance of causal complexity in the wild. Beside Vermut Lustau Blanco and Plymouth Navy, he notes “I have no idea how the botanicals combine to produce something like bittersweet chocolate, but it’s there, right in the midpalate,” which sounds a lot like emergence.

Intellectually, what unifies Bear’s scholarship is his interest in developing tools that help IR scholars directly answer the big questions they’re interested in. Political psychologists like to poke fun of game theorists for their reliance on implausible assumptions, but we forget that the linear model is a model too; we talk a big game in the social sciences about how human behavior is incredibly complex, but tend to study it with the simplest, off-the-shelf methods. Much like his quest for the perfect martini, Bear didn’t believe in taking things off the shelf, as is evident in his work on causal complexity, Boolean statistics, variance-altering causation, flexible causal inference, and asymmetric hypothesis testing. He instilled these interests in his graduate students. Much as you can always spot a Jervis student by whether their dissertation includes a case study on the Fashoda crisis, you can spot a Braumoeller student because they care a lot about variance and unusual estimators, and (as a consequence of Bear’s PechaKucha era) their presentation slides are mostly pictures.

Academics often have a tendency to chase trends. Bear fled them, and was deliberately counter-cyclical. He went macro when IR went micro, offering what I think of as the most empirically sophisticated treatment

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of systemic theory in IR in his multiple-award winning 2012 book on great powers in international politics. After his 2019 book that overturned the decline of war thesis led him to questions of international order, he dove into agent-based modeling, winning large-scale grants from the National Science Foundation and Carnegie Corporation in the process. He embraced what he called Weird Old Stuff (WOS for short), and had a tendency to direct his students to pieces by Lewis Richardson, Harold and Margaret Sprout, or chapters in edited volumes by David Easton, which somehow always solved the problems we were facing. This was a broader theme: Bear’s model of advising did not simply identify problems in your work, but would solve them for you with an idea that was often totally off-the-wall. Long after I graduated, I would still come back to Bear whenever I had a problem with a paper that I couldn’t figure out, and he would solve it for me.

Tyler Jost, Eric Min, Rob Schub and I have an article where we use a corpus we built of archival material from the Cold War to study how advisers matter in foreign policy. Early on in the research, we had hit a roadblock: we wanted to come up with a credible way to measure the hawkishness of these advisers independently of the group decisions were planning on using hawkishness to explain. First we tried a dictionary-based approach on memos the advisers had previously written, but this proved to be a dead end, since we couldn’t tell whether the advisers, or the advisers’ advisers, had actually written the memos. I asked Bear for advice, and he casually said, “why don’t you use Cold War-era elite surveys to produce a predictive model of hawkishness, and then fit the model on the actual advisers in your data?” So we did—and as was the case with all of Bear’s suggestions, it worked improbably well.

I was presenting that paper at a workshop on 3 May 2023 when I got the call that Bear had died, and realized that I could no longer ask him to solve my problems for me. In the days after, as I read through old text messages and emails, I remembered that Bear once had an iPad evangelist era, when he would routinely tell us about new productivity apps he was trying. As a result, there was a period when instead of

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9 Our last text exchange was about the Aeron chair; our last email was about realists’ tendency to claim descriptive accuracy while also complaining that policymakers don’t listen to them.

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sending written comments on papers, he would embed voice memos into them, which would eerily start speaking to you when you weren’t expecting it. These files are now my silent stills.

Unable to ask Bear for advice on what I should write today, I opened up one of these files, and Bear’s soft-spoken voice began to play. “Hey Josh,” he said. “The first thing I notice is that it looks like you’re using Garamond, and as I recall, a study in the New York Times says that Baskerville is the most credible font. I only mention this because I know you’ll care.”
“A Recollection from the Island of Misfit Toys”¹

Part of grieving the loss of Bear Braumoeller is ineffable, a feeling of losing something that had not yet existed and now will not, having seen just enough to know for certain that it is lost. I had thought of grief as either backward looking, a hole in the heart and a flooding of memories and moments that are continual reminders of loss, or forward looking, an “empty chair” and an aching at every milestone missed. I have felt some of each of those when it comes to Bear, as his students discuss and defend their outstanding scholarship that bear the marks of Bear’s advising. But perhaps what I most miss is that feeling of not knowing what the answer will be when I ask, “What do you think, Bear?”

Bear and I were Ohio State University (OSU) colleagues since 2007, in an International Relations (IR) group he was fond of calling the “island of misfit toys.” He was a couple of years senior to me and a strong, unwavering mentor throughout both of my promotion processes. In some ways our intellectual profiles could not be more different. Bear’s teched-up formal modeling and computational social scientific approach is a stark contrast to my qualitative, conceptual, and, in his words, “increasingly critical” constructivist approach. But we are both security scholars of great power politics, and system level theorists with deep appreciations for historical inquiry.

In the 2010s, we engaged in a sort of administrative and intellectual “parallel play”: Bear served as Director of Graduate Studies (DGS) while I served as Director of Undergraduate Studies (DUS); we each reviewed Barry Buzan and George Lawson’s *The Global Transformation: History, Modernity, and the Making of International Relations*; and we each responded to Stephen Pinker’s *Better Angels of our Nature.*² On Buzan and Lawson, while we both celebrated the agenda of pushing IR scholars to rethink the deeper historical contexts in which our understanding of the world is embedded, our critical assessments diverged. Where I pushed for sharper conceptualization and generalization, Bear thought that description was exactly what was called for. Where I encouraged the authors to guide us more precisely on how to engage with the nineteenth century, Bear provided some of the guidance, developing translations aimed at “an audience for

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¹ Many thanks to Andy Goodhart for the invitation to contribute, to Laurie Georges for research assistance, and to Laurie Georges (again), Kara Hooser, David Peterson, and Liuya Zhang for reminiscing with me for this piece.


which [the book] was probably not intended: American IR scholars working in the quantitative empirical tradition.”

When it came to Better Angels, our assessments were more in sync. In several hallway conversations, we bonded in frustrated skepticism about Pinker’s decline-of-war thesis, both of us interested in how peace can produce war. Bear’s hunch that order can make war produced Only the Dead. My hunch is that unthinkable violence can produce violence. Generously interested in the social theory behind my propositions, Bear encouraged me to think empirically while thinking theoretically and offered a brainstorming conversation, when I was ready, with him and/or students in the lab, to evaluate empirical implications of unthinkable hypotheses. As he gained institutional and disciplinary power through assuming OSU’s Andrei Baronov and Ratmir Timashev Endowed Chair in Data Analytics and founding the National Science Foundation (NSF)-funded Modeling Emergent Social Orders (MESO) Lab, Bear relentlessly modeled respect for theoretical and methodological pluralism through his own engagement with the work of scholars that was very different from his own.

2022 was a year of new beginnings. I benefited from Bear’s commitment to starting unlikely, even awkward scholarly conversations. Both the “International Order, Governance, and Networks of Cooperation” conference that he hosted with Alex Thompson, and the MESO retreat, in which faculty affiliates commented on the team’s works in progress, brought together scholars with theories, perspectives, and methods that aren’t usually in conversation. These very different get-togethers shared a fundamental structure that lent itself to intellectual experimentation: bring together a diverse set of researchers who are thinking on similar themes; share our work; add good food, and usually wine; and let the conversations take off.

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Two themes resonate most as I reflect on our conversations and co-advising.

The first has to do with representation as a medium for explanatory theorizing. Bear and I shared a concern that IR as a discipline has become atheoretical, and a sense that one reason might be that IR programs do not seem to be teaching students how to theorize. We each felt strongly that the skill of theorizing, separate from measurement and testing, ought to be specifically taught as part of graduate education. The core of the IR discipline rests on theory—the positing of an international system. Theory attempts to shed light on why international politics works the way it does and how it produces effects. Bear’s frustration that the discipline treats statistical models unreflectively as theoretical models inspired his 2022 manuscript,

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5 Braumoeller, Only the Dead.
6 “Braumoeller, MESO Lab receive NSF funding for international order research,” College of Arts and Sciences, 17 Aug. 2021 (osu.edu).
“Foundations of Social Science Theory,” an effort to generate a “coherent way of thinking about social science that centers theoretical explanation rather than obviating it.”

What I learned from Bear that I had not thought of before is what he calls a “representational account” of explanation that focuses a lot on models. His use of the term representation struck me as idiosyncratic. My view of models—artificial, stylized descriptions of phenomena—has been that they “stand in” for systems and are used to make predictions. Theories, in contrast, provide accounts of why or how something we are interested in is produced. Models represent; theories explain. Bear’s move is to treat representation as part of explanation, not an alternative to it. In his words, “explanation can best be accomplished via stylized theoretical models that represent behavior imperfectly but usefully.” Computational models and simulation are media for theorizing causal relations and patterns. As I understand it, this means that part of the “why” of an argument can be traceable to aspects of the model in a counter-factually relevant way; that is, but for decision rule \( x \) which I have programmed into my model, the systemic outcome would not have occurred.

Tightly connected to his commitment to a representational account of explanation is his iterative approach to theory-building. For Bear, a model was one among several tools we use in the process of thinking through and seeking to explain complicated things. The stylized representation that models offer can be leveraged to clarify and deepen the theoretical explanation. The analyst’s initial choices about what constitutes the essence of a phenomenon and how to represent it are theoretical, explanatory moments. They are also moments of genuine creativity, as analysts place “an ontological bet” or a “gamble,” asking “Which features [of] this abstract representation of behavior do I need, and which ones can I jettison, for it to be a parsimonious but useful model of some aspect of that behavior?” From there, running the model provides insights, sometimes surprising ones. The results from an initial run speak back to the analyst, and can lead to modifications of the model’s parameters, decision rules, even units. The model is then run again for a second set of results, and so on. Theorizing is dialogic, sometimes a back and forth between the researcher’s theoretical intuitions and what the formal model reveals as the implications of those intuitions; sometimes a collaborative process involving a conversation community.

When I first heard Bear’s students distinguish between model/code and so-called “verbal” theory, the distinction rubbed me the wrong way. It felt judgy, as if there was an implicit “mere” before the word

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verbal, with a connotation that if you can’t get beyond verbalizing you are not yet enlightened or have somehow failed. Richard Swedberg\textsuperscript{13} talks of this use of “verbal” as being prominent in the 1970s when there was a surge in systemic theorizing. Bear’s scholarship, syllabi, advising, and approach to the MESO Lab believed that 1970s approach. He assigned that early qualitative scholarship on systemic theory, not as “tradition” to juxtapose against “modernity,” but as a site for brainstorming. Because this scholarship “was conceived in the absence of the sorts of intellectual constraints that a narrow training in methods can impose,” it helped guard against the all-too-prevalent “methods-first theorizing.”\textsuperscript{14}

Bear subsumed all explanations under the representational umbrella: “Many different forms of explanation, such as causal-inference models, agent-based models, system dynamics models, rational choice models, and purely verbal theories, can be understood as special cases of representational theoretical models.”\textsuperscript{15} From this standpoint, my scholarship “represents” causal theory verbally rather than in code. This pluralistic approach to causal theory has the virtue of leaving open the possibility that perhaps not all causal theory can be coded, and that coding is not always going to give us adequate causal explanation, even in complex systems.

Taking this one step further, theoretical “building out”\textsuperscript{16} can encompass a wide range of mental activities: linking a concept to a classification or typology; reasoning via metaphor to bring two domains “in cognitive/emotional relation” or via analogy to infer from a familiar domain to a targeted unfamiliar domain; accentuation of some aspects of a phenomenon, through constructing an ideal type or through reconstructing a system as a model or simulation.” My own tools tilt toward metaphor and analogy, and Bear’s tended toward modeling, but all of these are part of the “playful” “full of movement”\textsuperscript{18} process of theorizing. As he put it, “The ability to focus on just the elements of reality that you think matter the most, and really work through the logic of their interaction, is one of the most joyful and exciting parts of the theoretical enterprise.”\textsuperscript{19}

The relevant distinction, then, is not between representation and explanation but between theorizing as an activity and theory as an outcome. Theorizing is an explanatory process; theory is an explanatory output—the reification of a moment in that process. There is beauty in the reification—elegance, parsimony, alluring mathematical rigor, and computational creativity. But while “theory is stuck forever in its formulation,” “theorizing is never finished once and for all. It is truly impermanent, imperfect, and


\textsuperscript{15} Braumoeller, \textit{Foundations of Social Science Theory}, 37.

\textsuperscript{16} Swedberg, “Theorizing in Sociology and Social Science.”

\textsuperscript{17} Swedberg, “Theorizing in Sociology and Social Science,” 24.

\textsuperscript{18} Swedberg, “Theorizing in Sociology and Social Science,” 15.

\textsuperscript{19} Braumoeller, \textit{Foundations of Social Science Theory}, 29.
incomplete.” Bear’s professional activities created space for many of us to share in the beauty and joy of the process.

The second theme that resonates as I reflect on our conversations and co-advising is a commitment to systemic theory and its corollary, an aversion to the idea that systems are aggregates reducible to their “micro-foundations.” This led each of us separately to the concept of emergence for grasping the relationship between macro structures and micro agency. I came at emergence “verbally” using the concept of collective intentionality. Bear was drawn to agent-based models (ABMs) and dynamic models. In ABM, “…computation is used to simulate agents’ cognitive processes and behavior in order to explore emergent macro phenomena, i.e. structural patterns that are not reducible to, or even understandable in terms of, properties of the micro-level agents.” The benefit of ABM is that it “allows the analyst to create, analyze, and experiment with, artificial worlds populated by agents that interact in non-trivial ways and that constitute their own environment.”

Both ABM and the approach I took are “thin” approaches to systems. While it is true that the systems they explain are wholes, separate from and supervening over the parts, in each the whole is “born” from the interactions of pre-specified agents and posited rules for interaction. That is, “entities are already entities before they enter into social relations.” This means that neither of us in our scholarship on emergence could capture the fact that, as Alexander Wendt long ago put it, “the organizing principles of the state system constitute states as individual choice-making units which are responsible for their actions.”

In my 2018 Critical Security Studies graduate seminar, the students raised a question of this sort in the session on feminist and gender-based approaches to security. Juxtaposing Christine Sylvester’s “War Experiences/War Practices/War Theory,” and Dan Reiter’s “The Positivist Study of Gender and International Relations,” the discussion became particularly heated, and a main axis of contention centered on whether there are explicitly feminist methods—methods particularly well- or poorly suited for...
elucidating feminist concerns. For Reiter, experimental designs are an important future focus for gender research; Sylvester seems to suggest that interviews are a preferred method for feminist scholarship. Because several students in the class were also working with Bear, seminar discussion quickly turned to ABM. Could ABM get at feminist concerns, especially the problematic of emancipation?

If ABMs require establishing behavioral rules for pre-existing agents first, then this is a problem. Gender is a social structure that constitutes agency in different social formations in different ways. How can we know in advance how gender structures action in a system? Patriarchy is instantiated differently in different social systems, and in any system can be interpreted itself as an emergent effect—of relations of sex and gender, the division of labor, social class, and ideas about the family, and probably a host of other relations. Regardless of the particular “verbalization” of patriarchy, it is clear that agents in a patriarchal system do not have “prior independence” but are produced. Can we model a social system in which there are emergent effects of agentic interactions but that agency itself is somehow produced by the system?

After seminar I took the question to Bear, and we went back and forth about, basically, the agent-structure problem and ABM. Can ABM capture the ways in which “agents” are produced by structures even as they contribute to perpetuating them and/or changing them? Turning back to feminist/gender-based approaches to critical security studies: would it be possible, and, even if possible, what would be the purpose of modeling a complex social system heavily structured by gender? What kind of insights might it generate?

Fast forward to the next semester, and an email lands in my inbox from Bear, with the subject line “Agents”:

> David Peterson told me he was in your class.... The conversation came around to your and my discussion of a paper on relation-based modeling for feminist social science, at which point his eyes got wide and he said, “You won’t believe this, but Kara Hooser and I have been having exactly the same discussion.” Thoughts? Should we get coffee with them to discuss further?

I replied: “Yes of course; that’s a great idea!”

And, in the meantime, he sent me a few articles to read (many of which I have drawn on in this paper).

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How can something be a loss if it doesn’t exist yet? Isn’t there enough to grieve when you lose a friend? It’s not that people can’t think without Bear. His advisees continue to impress and surprise the discipline, let alone me, with all that they do. But there are many conversations that would have gone differently if we could have turned and said, what do you think, Bear? Maybe he’d laugh and say, “Well I don’t know!” Or maybe he’d say, “Oh! it’s just like this,” and then give a long, seemingly rambling but super precise example
of, say, a French war that ties it all together. Then we’d go back and forth, and modify our priors, and experiment with different propositions, and end up in a new thinking space. It’s those lost conversations, and the places a conversation might have gone. The other day David and I reminisced about “Relation-Based Modelling for a Feminist Social Science.” “We should do it! Let’s get Kara and go back to that!” Then a hiccup of silence, imagining Bear’s joy at pulling that “misfit toy” into the lab.
I’m a Michigan PhD because of Bear Braumoeller. Years ago, while teaching classes at The Ohio State University as an adjunct lecturer, I took the opportunity to begin attending events at the Mershon Center for International Security. One of the speakers passing through was an emerging assistant professor at Harvard who had earned his PhD at the University of Michigan, Bear Braumoeller. I can still clearly recall his talk. He started in pure Braumoeller fashion, both deadpan and self-deprecating, by commenting that he was “required to pursue at least one work of pure unmitigated hubris as terms of his employment at a fancy, east coast, private university.”

Braumoeller went on to give an entertaining and mesmerizing presentation—complete with his trademarked entertaining slides—on the role of great powers in both shaping and being shaped by the international system. This research would become his 2008 *American Political Science Review* article and then his 2013 award winning Cambridge University Press book. The research was a combination of history, mathematics, statistics, and substantive importance. It was exactly the type of research I wanted to do. I doubled checked where he got his PhD, “Michigan? Okay, that’s where I should probably go to get mine.” A few years later, that’s exactly what I did.

His commitment to mathematical and statistical rigor, and the substantive payoff from that commitment, is perhaps best illustrated by his work on trends in warfare and battle death fatalities. Perhaps due to its data intensity, this is one of the rare international relations topics that is explored not only by other social scientists, but scholars outside the social sciences, such as engineers, mathematicians, and computer scientists. In particular, social psychologist Steven Pinker became well known for arguing that human violence is in decline, especially noting the decline of organized violence between the armed forces of
nations, a.k.a. war. His argument relies on showing chart, after chart, after chart (as is Pinker’s penchant) of data demonstrating a downward trend in violence.

For Braumoeller, presenting data in the manner done by Pinker only offers the façade of rigor. While not questioning the data actually used by Pinker, as they came from the well-established and highly regarded Uppsala Data Conflict Project and the Correlates of War project, Braumoeller drew out how presentations of the data alone are not enough to establish the claim of a decline in violence. Instead, one had to account for the power law nature of war violence data. This is an aspect of violence that scholars have known since the pioneering work of Louis Fry Richardson in the 1940s. If wars were normally distributed, rather than power-law distributed, then it would be virtually impossible for a single war to dramatically throw off a general trend in observed warfare. That is not the case with events that are power-law distributed. Because it follows a power law distribution, it is not unusual to witness a long series of small wars. But every so often there will be a war so large and deadly that its scale will overshadow the recently preceding wars, altering the observed trend. In other words, if you exist in a time of small wars, do not be fooled into thinking that wars will always remain small. This point is vitally important for not just understanding the past trends that we observe regarding warfare, but in thinking about the nature of ongoing conflicts and their potential escalation risk. For example, in thinking about the ongoing War in Ukraine, he and Michael Lopate point out how, based on our knowledge from past wars, “War escalation is extremely unpredictable, and most people don’t appreciate just how easily and quickly wars can escalate to shocking levels of lethality.”

While Braumoeller was rigorous in his use of statistical methodology, he wasn’t dogmatic. Consider his 2003 piece with Anne Sartori, “The Promise and Perils of Statistics in International Relations.” He and Sartori raise a host of concerns regarding the improper use of statistical methods by international relations scholars. Their concern was more fundamental than the common failure of scholars to ensure that the assumptions underpinning a particular statistical method are satisfied. Instead, they are most concerned about the improper match between analysis and theory. Scholars must not fall into the trap where “statistics can take the place of thinking” (140). It was quite common, from their perspective, to see work using methods without regard for the theory being tested. Though a given statistical test is supposed to test and evaluate a given theory, “much research strays far from this goal in practice” (145). For example, one might test the relationship between democracy and war without considering that the relationship is conditional on a third factor, say the level of economic development. This suggests using a statistical model that

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captures the interactive relationship between democracy and economic development, not just a straight linear estimation of war on democracy.

But despite the calls to do better, Braumoeller and Sartori stress that scholars should not “make the best the enemy of the good” (145). Indeed, the overall tone of the piece contrasts one written a decade later by John Mearsheimer and Stephen Walt titled “Leaving Theory Behind.” The two pieces offer a consistent message (indeed, the Mearsheimer and Walt piece cites and quotes generously the Sartori and Braumoeller piece), but not tone. One comes away reading the Mearsheimer and Walt piece either offended (if you are a scholar who regularly employs large-n analysis in your work), disillusioned, or vindicated (if you are not a scholar who regularly uses such methods). In contrast, the constructive tone of the Sartori and Braumoeller piece leads one to see that while the statistical work done to that point was far from perfect, it had value that can be improved and built upon. The former piece can lead one to despair, while the later can lead one to aspire.

Consider also how both of Braumoeller’s books do not rely solely on statistical and mathematical modeling to establish their points. Far from it. Bear was aware that there are questions to which quantitative methods can speak, and questions for which such methods are no better than silence even if properly applied. That is why both works also offer outstanding examples of diplomatic historical analysis. A key chapter in his book Great Powers and the International System is chapter 4, which considers focused cases of European politics immediately following the Congress of Vienna, the decision of the United States to become involved in World War II, and the end of the Cold War. Citing the well regarding qualitative scholar John Gerring, Bear states that one can’t stop at statistical analysis of large-n data because it is not amenable to assessing a causal mechanism. For that, one must look carefully within cases (112). Similarly, part 4 of Only the Dead, titled “Making Sense of the Data,” is primarily a piece of international and diplomatic history, focused on showing how and where attempts at constructing and maintaining international order influence the onset and propensity of war.

All of this served as a continuing inspiration and source of aspiration for me, one that I strive to pass on to others. I regularly teach a course titled “Quantitative Security,” which is aimed at introducing students to the history and methods of using large-n data to study questions of war, security, and violence in international politics. The first reading of the course is the above-mentioned chapter by Braumoeller and Sartori. The last reading of the course is a follow-up piece that Braumoeller wrote in 2018 with one of his graduate students, Adam Lauretig, titled “Statistics and International Security.” The two pieces bookend the course because they simultaneously call on international relations scholars to do better quantitative

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work, but not allow the perfect to be the enemy of the good. We can honor Bear and his legacy by taking that lesson to heart.
As other remembrances have also attested, Bear’s scholarship, was a giant in our field.¹ His research, which combined statistics, theoretical modelling, and historical research in very innovative ways, vastly expanded IR’s thinking about international conflict and international order. Bear was a Fellow of the American Association for the Advancement of Science and his work had won many awards and funding support from major bodies. He was the author of the greatly acclaimed *Only the Dead: The Persistence of War in the Modern Age* (2019) which challenged the decline of war thesis and *The Great Powers and the International System: Systemic Theory in Empirical Perspective* (2013)² which breathed new life into systemic theory. But he was also a great colleague and friend to many of us across the discipline.

I met Bear in May 2016, when we were both doing a month-long residential fellowship in Oslo at the Nobel Institute. He was there with his wonderful wife Kristen and their baby Molly. I was there by myself, still reeling from my father’s unexpected passing the March of that same year. Our offices were next door to each other at the Nobel Institute and initial mutual queries about how to do various things in Oslo quickly turned into more interesting discussion about our academic projects. At the time, Bear was working on the ideas that would later become *Only the Dead: The Persistence of War in the Modern Age*, and I was trying to figure out my next book project. It was a personally very difficult time for me but gradually I came out of the fog I was in. My conversations with Bear played a large part in that, which may be surprising to some. Bear and I had different approaches to studying international politics and thus might have been expected not to have much to discuss. But that was not the case at all. What I think we shared however was a love for history and a fascination with macro questions. We both cared about the big picture, but the greater credit here belongs to Bear. His research agenda was not driven by a desire to get lines on a CV. He also read voraciously and often outside of his own area. He frequently asked me recommendations for readings from my corner of the discipline. One of the best things about him was his openness to different kinds of work, which reflected a genuine intellectual curiosity about everything. I think this came from both his confidence about his own research and his focus on substantive matters rather than the superficial shape of things.

The above is not meant to dismiss Bear’s contributions to our thinking about research design and methodology, which were substantial. In fact, our initial conversations in Oslo also often focused on methodology—unlike many who cared about methods just enough to get things done, he really thought about what he was doing, which is why I think he was also such a good teacher, and he trained his PhD students so well. Some years later when I was about to start my associate editorship at *International Organization*, we were asked to go through back issues and pick our favorite articles to help us envision what

¹ This essay is adapted from remarks given at the memorial panel organised in honour of Bear at the APSA 2023, Los Angeles.

type of articles IO should be publishing more of. One of my picks was Bear’s “Hypothesis Testing and Multiplicative Interaction Terms,” exemplifying exactly kind of thoughtfulness about methodology I referred to above.

My friendship with Bear deepened after Oslo when we came to work as associate editors together for the first editorial team of the *Journal of Global Security Studies*. In that journal, two associate editors would oversee each submission (one as lead and one as shadow) and we did not always get to pick articles in our speciality to work on. Bear and I worked together on many articles, some of them out of both of our areas of expertise. In handling submissions, he managed to be simultaneously firm (not giving things an easy pass) but constructive, helping to improve each piece.

By the time our editorial commissions ended, we were both working on and thinking about questions of hierarchy and order, so we found other ways to collaborate. We caught up at conferences, I ended up visiting Ohio State several times on his invitation and we had plans for him to visit Cambridge for my global disorder project. Many things stand out from these visits in my memory, but I will highlight two that really stay with me. First, the incredible atmosphere he had cultivated at the MESO (for Modeling Emergent Social Order) lab with his graduate students, where he not only trained new generations of scholars but worked with them as collaborators and co-authors. This was a model for many of us about what graduate students teaching could be. Second, his intricate knowledge of the culinary scene in Columbus and beyond. One of the first conferences I attended post-COVID was organized by Bear and Alex Thompson, bringing together order and network scholars. When I got the invite, I told Bear that I would attend as long as he was making the eating arrangements. And he did not disappoint—we had a special dinner catered by a rising chef of Columbus and a personal friend of Bear’s, a real joyful occasion after the difficulties of the pandemic years.

In a weird twist of fate, the last time I saw Bear was also in Oslo. I was visiting Oslo to give a book talk about *Before the West* in December 2022 and he was there for his sabbatical, again with Kristen and Molly. He had already read and assigned *Before the West* (in fact I had presented in draft form at Ohio State in 2020 upon his invitation) but still came to the book talk and dinner afterwards. It was a joyful reunion where Bear got to meet new research connections and friends in Oslo, and we caught up about the MESO lab and his various projects. I did not know at the time that it was goodbye, but the evening exemplified everything that made Bear a great friend beyond an academic powerhouse: he was larger than life, intellectually serious, devoted to his family and students, and humbly charming to all that crossed his path. He will be sorely missed.

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