

The Power of Two

Sandy Arlinghaus

Personal Reflections

WOW! This coming fall Bill and I will have been married for 45 years! Time flies...it seems to me as if we have always been married; then again, sometimes it seems as if that were only yesterday. Perhaps it's some sort of variant of "time flies when you are having fun." Indeed, Bill and I have had fun and continue to have fun. A large part of that fun comes from supporting each other in our various projects; sometimes he is the dominant participant and I am the supporter. Other times the roles are reversed. In the material below you will see how this idea has worked for us. Then, you will see how this approach might continue to work for us in 2012. When we work together, the resulting effort is greater than the sum of its component parts. When the fit is right, that is the outcome. That is "the power of two."

If you elect Bill as your next President of the ACBL, you may be assured that I will do my utmost to work in support of this project, as I have on previous ones. Many of you might reflect on that approach when we served as Co-Chairs of the Detroit NABC in 2008; a smaller group might do the same for our recent involvement as local Co-Chairs of the USBF Women's and Seniors' Trials in Detroit in June of 2011.

History

Philosophy

Bill and I first met when we were young graduate students in the Ph.D. program in Mathematics at the University of Chicago. As I got to know this just-turned-20-year-old brilliant and pleasant young man, I was struck with (among other things) how many similarities we had despite our obvious differences. He was from Detroit; I was from Chicago. He had lived at home as an undergraduate and gone to the Jesuit University of Detroit where his father was a professor. I had left Chicago at just 17 to go east to Vassar College in Poughkeepsie, NY. He had lived his whole life in Detroit; I had lived in upstate New York, moved to Chicago, lived in Paris, France for three years, and then returned to New York for undergraduate school. He was (and is) a practicing Roman Catholic; I had no religious upbringing having been raised in the Hyde Park neighborhood of Chicago (home to the University of Chicago) by parents who had rejected the protestant religions of their youth.

So, where are the similarities, you ask? Bill and I both learned to love pure mathematics at an early age. That love translated into a desire to continue to learn more and that is why we wound up in the graduate school that we did—as the number 1 rated program in algebra at the time we went there. The title "mathematician" is an interesting one. It seems to have different meanings depending on who uses it. To many professional mathematicians it means one who has a Ph.D. in mathematics. That fact alone distinguishes pure mathematicians from all those who are "users" of mathematics in various capacities. To obtain a Ph.D. in mathematics, one must create new mathematics. That is not the case for "users" of mathematics. A simple way to view this distinction may be to think of music. A composer of music is different from a musician. There may be overlap, and no doubt most composers are themselves also musicians. The reverse may not be true. The same is true with cars. One can drive a car without being an auto mechanic. The distinction, however, between "pure mathematics" and "applied mathematics" seems not to be as intuitive. We both grasped this large difference as young children, shared it quickly

as young adults, and have continued to share it for almost 45 years of marriage. The concept behind that difference appears in numerous settings beyond the music and car analogies.

Why did we both grasp these subtle distinctions that are often not intuitive? Perhaps it was because we both went to two of the most highly rated high schools in the country, each of which focused on classical education, creative outlook, and prized the learning of enduring abstract reasoning over trendy and politically correct curricula. He went to the Jesuit University of Detroit High School and I to the secular University of Chicago Laboratory Schools (where incidentally I became a close friend of Janet Friedman (now Jan Martel) whom I have known since we were both friends in kindergarten and throughout grade school and high school). Maybe it's because we both had fathers who were professors of history (although his father had a Ph.D. from Harvard and mine from Chicago from advisors who were known adversaries). We learned early in life, although independently, that one must have good abstract visualization of the past in order to make sense, and to remember, relationships from the past that one never experienced. We also learned early on, that such process is far more than mere memorization...that understanding relationships, transformations, and change under transformation is necessary. The same is true in mathematics. It is also true in many real-life settings, as well.

Anyway, we quickly found fascinating similarities and dissimilarities in our backgrounds and interests. We have embraced both, equally. Difference in religion has taught us tolerance for others and for the power that diverse viewpoints can bring to a situation. Deep understanding of abstract logical structure has taught us to look for enduring characteristics in real-life situations rather than to be swayed by the trendy or the superficial. The parallels go on and on; these examples suffice.

Pragmatics—Sandy supports Bill

As an undergraduate, I enjoyed playing a half an hour of bridge every evening in the dormitory after dinner. Some of the girls were very serious. I played with girls who were less than serious about cards although very serious as students majoring in science. It was fun away from the books for a brief period of time. We learned discipline in balancing work and fun. When I met Bill I told him I played bridge. Well, little did I know what was coming next! He told me about duplicate bridge and played with me a few times in local club games. Then, he took me to an ACBL Nationals at the Palmer House in Chicago. I was so pleased with myself when, on the first hand, I bid and made 6 spades. But, I learned the hard way...what I thought would be a top was a bottom...everyone else was in 6 making 7 or in 7 making 7. Further, I got a good taste of different systems. Bill had explained to me that bids didn't always mean what they sounded like they mean. Bill also told me that even "pass" might not mean what one would think. At that time, some folks were playing Schenken. We played against one pair of very intense men. One of them said "pass" in the middle of some Schenken sequence. I asked his partner what that meant. Partner was very rude and clearly treated me as if I were some sort of idiot. I called the director and still was not able to uncover what the bid meant (Bill later told me that it was in fact a straightforward "pass" but that I had not been wrong to ask). Welcome to tournament duplicate bridge, Sandy!

It was clear from the outset that bridge was another one of these abstract structures that we could each embrace in our own unique ways. After we were married, had degrees, and a young child, we were able to continue with bridge. Bill enjoyed playing more than I did although I did play occasionally. I am a shy person (although my friends forget that because after I get over my initial shyness, they can't shut me up). I find participating in events with lots of strangers brings out that shyness. The way I overcome that is to work at such events. Thus, I enjoy hosting events (where I work) rather than sitting around at

them (where often I get up and work anyway). I learned early on that helping to run bridge tournaments was far more interesting to me than sitting around playing the game. (I felt the same way about sports, as well...played on a number of different teams in high school and college but seldom went to the games). I prefer teaching to listening; I prefer chairing a meeting to sitting around in a meeting. I like action and I like to get things done.

Bill and I have been working as a team at running bridge events for over 40 years in the Detroit area. He is the dominant figure; I am the support. Sometimes folks think the opposite, but that is only because they see me doing things. Bill is very smooth about his effort and works to make others look good. Perhaps that is one reason why he is serving in his 12th consecutive year as President of our Homeowners Association. Or, why he has been elected more than anyone else locally to serve as head of his ACBL unit (Unit 137). Or, why he has been elected President of his Pastoral Council. Or, why he was appointed (shortly after his 5-year tenure as department chair) by his university President to be in charge of the transition of the entire university from the quarter system to the semester system. I have supported Bill's interest in bridge during his 7 years as District Director: with the ACBL Technology Committee (in sharing some of my expertise), with the Detroit NABC, and with the Detroit USBF event. I will be pleased to continue that style of support in all of Bill's forthcoming ventures.

Turning the support equation around—Bill supports Sandy

The previous section mentioned a few of the ways in which I have worked to mesh my talents with Bill's in support of some of his projects. We both publish quite a bit, as well. I enjoy that more than he does. Generally, I am the dominant author and he serves in a supportive role. He is, of course, my favorite and most frequent co-author (although I do have many others in my over 300 published books and articles). A number of our publications are in electronic format. In 2002, we published (with co-author Frank Harary) John Wiley and Sons first-ever eBook, entitled *Graph Theory and Geography*. It built on previous electronic efforts, many related to *Solstice: An Electronic Journal of Geography and Mathematics*, cited by some as the world's first electronic journal. I founded it in 1990 (it continues today) and since that time Bill and I have both contributed a number of (refereed) articles to it as have other scholars in geography and mathematics (<http://www.imagent.org>). Also, there are a number of electronic books subsequent to the Wiley publication. One was awarded the status of "semifinalist" in the global competition for the Pirelli INTERNETional Award. Bill has helped me in so many ways to become more than I could have become on my own. Let me tell you about just one association that you might not otherwise know about.

In addition to my work as a university professor, as a professional website designer and president and co-owner (with Bill) of a business, as an institute director, as a community servant (including as Chair of local Planning Commission), I have been involved with Community Systems Foundation (CSF) here in Ann Arbor since 1990. CSF is an international NGO (founded in 1963) focused on improving the quality of life in developing nations. Since the mid-2000s, CSF has been a direct partner of the United Nations Headquarters. Prior to that time, it worked with regional UN offices around the world. Before that, and before I was there, it worked principally with USAID and related agencies.

When I first came to CSF, I was brought in as a mapping expert to work at developing part of a tracking system for maternal and child welfare in the country of Syria. For five years, I was involved, in various ways, with six different "missions" between Damascus and Ann Arbor. I was the fixed point; others travelled. The CSF President and CEO at that time, was Bill Drake who was a professor in the School of Natural Resources and Environment at The University of Michigan. Drake seemed very pleased with my

work at CSF and with my capability to teach Syrians how to do the needed mapping for themselves. He had recently published work on “Transition Theory” and was part of an interdisciplinary team (between the School of Natural Resources and Environment and the School of Public Health) at the university that had been awarded funds from the MacArthur Foundation to implement further work in this approach to Population-Environment Dynamics.

As one component of this effort, Drake invited me to create with him a course entitled “Population-Environment Dynamics: Transition Theory.” It was my pleasure to do so. From 1992-1998 we taught the course to graduate students from various nations. US graduate students came to know, and treasure knowing, their various counterparts from around the world. In this course, students worked closely with me and with Drake in developing projects of interest to them involving some sort of transition in natural or political structure. At the end of the course, Drake and I wrote introductory materials and then edited a book with student work and published the book in limited distribution. Later, we put them all on the internet. They are:

- 1992. Population-Environment Dynamics: Sectors in Transition
- 1993. Population-Environment Dynamics: Population-Environment Interaction
- 1994. Population-Environment Dynamics: Towards Public Policy Strategies
- 1995. Population-Environment Dynamics: Transitions in Global Change
- 1996. Population-Environment Dynamics: Ten Case Studies
- 1997. Population-Environment Dynamics: Issues and Policy
- 1998. Population-Environment Dynamics: Transitions and Sustainability

(Link to index page for these volumes: <http://www.umich.edu/%7Eecsfound/545/>)

These volumes are part of the permanent electronic archive called “DeepBlue” housed at The University of Michigan. They are still downloaded on a regular basis. For example, the UM library data shows that in May of 2011 the following 1995 work was downloaded 92 times that month, despite the fact that it is over 15 years old:

2027.42/60126 92 Population-Environment Dynamics: Transitions in Global Change. Arlinghaus, S. L. ; Drake, William D.

Each time the course met, Drake and Bill and I would go out afterwards and rehash what had happened for several hours....more is often learned in the post-mortem than in the event itself. Drake came to see, first-hand, the power of two and often commented on it. He brought Bill in as part of the general support mentioned in CSF overviews...as someone in the background while I was out in front. Bill continued in that role as Drake and team brought systematic analysis to managing information systems (using mapping as its backbone) in developing nations around the world. Drake also entertained and worked with many leaders in intervention strategy from around the world. It was our pleasure, as a couple, to interact with them when they came to Ann Arbor.

Further, the lessons learned in developing the course material pointed to a need for a handbook in graphical tracking of transitions. In 1994, I developed an outline for a series of practical handbooks to be published by CRC Press. The first in the series was a handbook based on the Transition Theory course. I served as Editor-in-Chief and as principal author. Bill Arlinghaus, Bill Drake, and John Nystuen (also of the University of Michigan and also of CSF—currently its CEO) served as supporting Associate Editors. The handbook was published in 1995; the outgrowths of the course were far-flung, indeed.

The software developed as a consequence of these early efforts continues to be in place in over 180 nations around the world—it’s amazing chief designer and implementer, Kris Oswald (now CSF

President) continues the work that was created by him, Drake, me, and others in the early 1990s. Since that time, I have become a principal at CSF, serving on its Board of Trustees and Executive Committee. Although Drake has passed away, the work continues and the strong networks that he and others developed move forward. It has been my pleasure to work with these fine altruistic people who know that building a better world means developing global, constructive relations. It has particularly been my pleasure to involve my husband, in aspects of these projects where he feels comfortable, as the support structure in this application of the Power of Two.

Moving Forward—Bridge IS Brain Food!

ACBL Technology is moving forward well now, thanks to the combined efforts of many: improved home page navigation, plans for possible future developments, and the restructuring of ACBLscore are underway. Bill has chaired the Steering Committee for the restructuring of ACBLscore. Thanks to great help from the committee, and particularly from Bill and Rich DeMartino, work is being completed. Since Louisville, the Initial Study by Steve Bailey has been completed and I have helped (as support to Bill) to share that by giving each of you access to it in a segment of my Dropbox cloud. At the same time, Jay has worked, following direction from the Steering Committee in Louisville, to hire a Project Manager for ACBLscore. Numerous phone calls from Jay to Bill and the other way around have led to a highly successful candidate search with an excellent hire now in place.

Craig and others are moving the club front forward; what an exciting Odyssey he has been on and continues. On a different front, but not unrelated in its altruistic goals, it seems to me that the power of 160,000+ might be harnessed systematically in supporting some broad humanitarian project.

Image with me, therefore,

Bridge IS Brain Food.

Consider a project to tap competitive bridge, through the office of the ACBL President, to create a fund for research on cognitive disorders. Also consider a project to implement, as part of a 5th grade mathematics curriculum in a developing sector of a stressed US city, a required bridge element in mathematics.

- We all know that there are already in place wonderful programs around the world that employ bridge as a tool to teach logic. Once young children master logical thinking, they can move forward to study successfully not only mathematics but a whole host of other subjects as well. As adults, these well-educated young people will move forward to become leaders in various endeavors.
- We also all know that there is research showing that playing bridge is helpful to the elderly in staving off cognitive disorders of various kinds.
- The ACBL already has two foundations associated with it that are involved in working with, developing, or funding “worthwhile” projects: The Charity Foundation and The Education Foundation. These groups might work in association, loosely or tightly, with the outlined project. Support from Board members and Horn Lake would no doubt become important in this venture.
- The ACBL President has a certain amount of discretionary funds available. Some part of these could be funneled toward project development.

There are any number of directions one might imagine for this project. Here are a few that Bill or I have already discussed with others:

- Run special games nationwide in support of the program.
- The cognitive disorders research fund might be called the “Joan Morse and David Rumelhart Fund for Cognitive Disorders Research.” I think we all know Joan; I remember so well how kind Joan was to me when Bill first came on the Board seven years ago—she included me with her friends, spent time talking to me about bridge administration, and so forth. She was a friend and a mentor and I have only the greatest respect for her approach to many things in life. David Rumelhart is the brother of Don Rumelhart, a member of District 12. Many of you may have seen Don at the 2008 NABC; he ran the spouse tours committee and had all the spouses to his, and his wife’s (Judy Towsley Dow), estate on the Huron River in Ann Arbor for a special luncheon catered by Zingerman’s with one of the founders of Zingerman’s at the tasting. Don supplied the wines as his gift. Don’s brother David was a MacArthur “genius” award winner. He was a professor of Physics at Stanford University. When David developed Pick’s disease, he was moved to Ann Arbor where Don and Judy eventually built an extra home for him on their large parcel. Finally, though, he needed institutional care; the Rumelharts supported an institute for cognitive disorders just outside Ann Arbor and David lived out the rest of his life there. He died this past spring. Bill has briefly discussed this idea with relevant parties and will continue with such discussions...stay tuned for more coming over the next few months.
- The educational arm in the 5th grade approach is one that we have discussed briefly with local political figures. We know that we can house training of teachers at the Ann Arbor City Club if we wish to take it outside a formal university setting. Bill had earlier conversations about doing so with the President of Lawrence Technological University and that may be a continuing possibility. Again, more coming

...but, all this is a heads-up on material that will continue coming your way!

So, eat your fish, think of it as brain food, but as you do so, please also remember that

Bridge IS Brain Food.