

On the Road with TPA

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I've been to a number of places with Tom over the years. I suspect that because of my prolonged tenure at KU I've gone to more meetings with TPA than any other graduate student of his. The traveling to these meetings, and sometimes the meetings themselves, has allowed me to see a side of Tom which isn't always seen in the office or in class.

The first conference to which I traveled with Tom took place during the first year in which I worked for him. He had assigned me (some months earlier) the task of displaying the results from the LECP experiment on Voyager 1 and 2 and, subsequently, examining the results near the vicinity of Europa from Voyager 1 (and really, I'm getting quite close to being done with both things... almost). At the time, there were four of us working on similar topics: Mark Paonessa, who was calculating phase space densities at Jupiter and Saturn; Gul Tariq, who was looking into some interesting phenomena seen by Voyager 2 in the region near Ganymede; John Lowry, who was bringing several Jovian magnetic field models on line for all of us; and myself. Being a second year graduate student, I was still not quite certain of what or how I was doing.

The four of us and TPA met, both formally and informally, fairly regularly during that period to discuss our relative progress on the topics at hand. On one such occasion, I was in Mark's office looking at some of his more recent results when Tom stuck his head in. The topic came around to the upcoming AGU meeting in Philadelphia (for those who want/need a date, that was Spring 1982). I, not having yet needed to join AGU, didn't know anything about it. As a result, I sat there innocently, absorbing the vast knowledge of my elders, while TPA and Mark discussed what to include in the abstract which Mark was to write when TPA turned to me and said "... and you should write up what you've been doing and send it off, too." I don't think my jaw would have bounced off of the floor any better had it been made of rubber.

In due course, the abstract was written and submitted and when the time came for us to leave for Philadelphia, there were five of us: Tom, Mark, Gul, Frank Kutchko, and myself. Tom, having compared the relative expense of flying us all out to driving had opted for driving. Even though Tom had made us go through the (to me) arduous task of pre-presenting our papers to everyone else in the research group, I was still quite apprehensive about giving the talk, having never gone through the process before.

We took turns driving, since the trip was about a twenty-four hour effort. It was my first experience at such a lengthy trip with so many people in my own field. Tom spent most of the day tossing out suggestions for us about our research and our upcoming talks. His contributions were not domineering, but meant to spur us on to other considerations. The drive throughout the day

was rather uneventful (although I'd just as soon forget Gul's stint of driving through Indiana). By the time night was falling somewhere in Ohio, we had more or less agreed to switch off throughout the night in pairs (with Gul the odd man out. . . no one really wanted him to drive again too soon). I was paired with TPA, but didn't know why at the time.

Since our intent was to allow at least two people to sleep at a time, when our time came, we laid down in the back of the station wagon. I have yet to witness a time when Tom had trouble falling asleep, and this time, being no exception, was out within a matter of minutes. I, on the other hand, always have difficulty dropping off and the combination of nervousness regarding the impending presentation as well as the road noise would have been enough to delay my sleep, but when the windows began to vibrate in resonance with the snoring taking place next to me, I knew sleep would not come. In any case, the snickering taking place in the front seat would have been distracting, as I realized that Mark and Frank, having traveled with TPA before, had maneuvered me into being Tom's driving buddy. By the time we moved into the front seat to resume our driving, I was far from ready to do so.

While Tom was driving, I wasn't able to fall asleep either, not only because I was obligated to help keep him awake, but because it wasn't very comfortable to do so either. Tom spent most of his time driving talking about a variety of things, but science *per se* was not on his mind. I had known that he had graduated from the University of Iowa during what could be termed the "golden age" of space physics and had worked under Van Allen. He told me a great deal more, though, than I had known before. He told me why he had chosen to write a theoretical thesis (under David Montgomery) rather than building an instrument to be flown on one of Iowa's spacecraft ("I'd seen too many people work for years on an instrument only to have the thing blow up on the pad or fail minutes into the flight."). He told me about the time he and Jeanette (his wife) spent in England while he did post-doc work and how much Elizabeth (their daughter) loved eating bangers (sausages). He told me how Dave Beard had brought him back to teach at his undergraduate *alma mater*. He spoke of the difficulties he'd had as a young faculty member getting support for research and how he'd spent summers working at Applied Physics Laboratory to get twelve months of support. He also talked about his first group of graduate students (Dennis Hewitt, Gloria Chen, and Rob Decker. . . I can still hear the choir of angels when he speaks of them).

When Tom relinquished the driving to me, I dutifully took over, figuring that he would help keep me awake in spite of my fatigue. Instead, he dropped off almost immediately. My only guess was that he figured the snoring would prevent my falling asleep. Needless to say, driving through western Pennsylvania, early Sunday morning, with only an AM radio and four snoozing passengers (no matter how loudly they snore) is not particularly conducive to staying either awake or on the road.

In the wee hours of the morning, I wasn't able to drive any further, so we pulled off at a convenient restaurant. We all piled out of the car and proceeded

to order breakfast. Tom was delighted to see that they had scrapple on the menu. He proceeded to regale us with a culinary critique of scrapple. (For those of you unfamiliar with it, scrapple is to Pennsylvania and New York what grits is to the South...I personally don't see it for either.) I'd never really heard anyone go on so much about a particular food before (although I must admit my own fondness for crab rangoon comes close).

We arrived in Philadelphia in due time, but the rest of the time I spent in a barely conscious state (no more cracks about Pennsylvania here). The conference began the next day, but none of us were scheduled to talk until the second day of the proceedings. Mark, Gul, and I were all scheduled during the same session. The most memorable part of that session to me (other than the fact that Frank kept track of how many times I said "uh" during my talk) was when Jack Connerney (with the Voyager magnetometer team) pressed me on a point in the my talk which I couldn't immediately answer. I got very flustered and TPA stood up to assist me. Since then I've learned how to handle such situations myself, but I was very grateful at the time.

Other events from other meetings also stick in my mind. During a Jovian and Saturnian magnetospheres meeting held in Cambridge, MA, TPA was to present the results of work that John and I had been conducting on tracing particles in "realistic" field models. The night before the presentation, there was a big dinner (a clam bake) for the attendees. In the true tradition of graduate students, John and I laid waste to all available food and drink. However, since they ran out of drink before we were sated, we staggered off in search of a liquor store. We purchased a number of items (just as you should never go to a grocery store when you're hungry, you should *never* enter a liquor store when you're already drunk) and went back to our room. TPA had a separate room and, after discussing matters for a while, John and I decided that we should take him a beer. We arrived at his room to find him diligently working away, organizing his talk for the following day.

Tom graciously accepted the beer and we entered to discuss what he was to present. Most of the transparencies with plots had, naturally enough, been produced by John and me prior to leaving Lawrence, but Tom was working on the textual overheads and the overall flow of the talk. As he told us what he intended to say, John and I kept telling him more and more things which were incomplete or wrong with various plots we had produced or with some of the calculations we had made. Undoubtedly the amount of alcohol we had consumed made us make it sound far worse than it really was, but all Tom did (other than turn slightly pale) was to begin making corrections on the transparencies. I don't know, though, that he ever entirely took us at our word after that.

The time came for another Jovian and Saturnian magnetospheres conference two years later, this one at the University of Iowa. This time there were to be only three of us, Tom, myself, and Dave Beard. This was, by this time, my fourth conference, so I was no longer apprehensive about the presentation. Tom, on the way out of Lawrence, decided to drive us past the site where

he and Jeanette were going to build their new house. He'd talked about the project for months preceding this and was anxious for us to see where it was. Once there, he decided against backtracking to reach the turnpike, so he drove county roads and highways to go to Atchison, his hometown, and thereby to St. Joseph (MO) where we could more easily catch the main interstates again. As a result of the area through which we were traveling, Tom spent a great deal of time talking about his family and growing up in Atchison. He talked at length about his parents and brother. He also pointed out the McCormick distillery and commented on the smell it produced when they were distilling. Later, when we were approaching Iowa City, he began to talk about the Amana colonies (a collection of small towns founded by a religious splinter group which has become rather commercially successful in the 20th century), which lie west of Iowa City. He spoke of how Jeanette and he had bought a great deal of furniture, gifts, and other items over the years and what great places the colonies were to visit.

My trips to conferences with Tom always presented me with an opportunity to learn more about him and how he ended up where and what he is. In some sense, I miss being able to spend the time traveling *to* conferences with him. Now that I usually only see him *at* conferences, however, I find it almost as rewarding being included in the *kaffe klatch* discussions about future missions, planning for future research and grant proposals, *etc.* As a result, I've been able to see Tom the teacher/mentor, the person, and, finally, the scientist/researcher/colleague... and I must admit, I do believe I like them all.