## An Interview with Julian Braun

Door Arnold Snyder, schrijver van meerdere boeken over gokken Verschenen in <u>Blackjack Forum</u> Volume I #2, June 1981

Julian Braun, author of *How to Play Winning Blackjack* (Data House, 1980), IBM computer programmer extraordinaire, and blackjack pioneer whose programs have provided the strategies of numerous card counting systems since the early sixties, made a recent trip to California. I took the opportunity to meet with him over dinner, during the course of which I conducted and taped an interview. Right from the start, Braun cast aside my preconceived conservative notions of him. I arrived in coat and tie. He was in his shirt sleeves. I suggested a quiet restaurant where the subdued atmosphere would be conducive to an interview. Braun had other ideas, suggesting a Moroccan restaurant where our dinner would be accompanied by music and an exotic belly dancer. We ate Moroccan style, in dim lighting, seated on cushions on the floor.

AS: Can you tell us about your original contact with Edward Thorp and how you started your blackjack analyses?

Braun: When Thorp came out with his book, I was very fascinated that he was able to do this kind of work with a computer and come up with a counting system. At that time, I had relatively free access to high speed computers. I wrote to Thorp and told him of my interest and asked if he would be kind enough to send me a copy of his computer program, which he did -- with absolutely no documentation whatsoever -- just a program written in Fortran which he had developed and run at MIT. I studied the program and figured out exactly how it worked.

He had an interesting algorithm that he had built into his program for cycling through the various combinations of cards. The computers back in those days were comparatively primitive to what we have now. Thorp had written what he called an Arbitrary Subset program, where he could feed into the computer any combination of cards he wanted, and the computer would crank out ten pages of information -- one for each of the ten dealer

up-cards. It would list on each page each of the fifty-five two-card player combinations, and the expectation if you stood or hit until you achieved the indicated standing number that was also computed by the program. It also showed what would happen if you doubled down -- even on ridiculous combinations like two tens. It gave a complete analysis regardless. It summarized at the bottom the best strategy for any combination, and what the expectation was for that combination.

I wrote an improved version of the basic strategy program which did essentially the same sort of thing, but with a lesser degree of approximation. That's the program I used to develop some of the count strategies that were subsequently developed. It's the program that was used to develop the data which was used by Revere to develop his strategies, and by Lance Humble to develop the Hi-opt strategies. That same program was used to develop quite a variety of count strategies. I also used it to develop the indices for the Hi-Lo strategy. I also wrote an exact program for any basic strategy situation in blackjack except pairsplitting.

AS: Peter Griffin claims he has computed an exact single-deck pairsplitting basic strategy.

Braun: I'm not sure how Griffin can say he has an absolutely accurate strategy -- an absolutely accurate program for doing this. It can be done theoretically, but I'm wondering if he actually has that much computer time to run it. I think he probably has a nearly exact program, rather than a completely exact program. My guess is that he has developed his program to consider what happens with one card of each pair, analyzing precisely what happens with all the possible combinations of the cards that can be gotten on it, interactively with the dealer's hand. He probably assures that the second hand would on average be about the same as the first hand. That's a fairly accurate approximation, but it's not completely accurate. To be completely accurate, you'd have to interact every combination of the first hand with every combination of the second hand with every combination of the dealer hand. That involves such an enormous amount of computer time, I'm somewhat dubious that Griffin actually did that. If you really want to be accurate, most casinos allow you to resplit pairs, so you would have to go down to the next level as well.

AS: Stanford Wong is one of the few systems developers who has computed a single-deck basic strategy using his own algorithms. His strategy differs from yours on one decision. You say to split 2-2 vs. 3, and he says to hit. Peter Griffin informed me that on this discrepancy, your decision is the correct one.

Braun: AH! Then I've been vindicated.

AS: Griffin sent me his data on this decision, which shows the player's expectation from splitting 2-2 vs. 3 carried out to 4 decimal places. It seems to me that Griffin considers his strategy to be exact. A couple of casinos in Las Vegas have recently introduced a one deck game of double exposure. Do you imagine that if you use the multi-deck double exposure strategy for the one-deck game it would be similar to using a multi-deck strategy for regular blackjack in a single-deck game?

Braun: No. It would be close, but the differences are more significant.

AS: Do you know Stanford Wong personally?

Braun: I've met him. I happened to have a business trip to Los Angeles a couple of years ago. I told Wong that I was going to be there, and he drove up from La Jolla to meet me. We had dinner together and a fairly pleasant conversation. I would not say that he exactly interviewed me, but we just chatted about things in general.

AS: Why is Wong so negative towards you now?

Braun: Well, I think it's just like anybody else in business; they don't like competition, and that's the way it is.

AS: Do you think it stems from your remarks in one of the versions of your "Development and Analysis" papers that Wong's Hi-Lo strategy tables were not quite accurate?

Braun: Yes, that's one bone of contention that seems to irritate Wong -the fact that I made a statement that he had a good system with good indices that were... "close enough" was the phrase that I used. Wong, in one of his writings, came back and said that they are not only close enough, they are better -- or something to that effect. At the time, I thought I was trying to be kind by saying they were close enough. In some areas, I now think his figures might actually be better. I think his method for developing indices may have been better than mine. Whether his indices are more accurate or not is a debatable point. I still contend that neither set of figures are completely accurate. A closer result to complete accuracy might be obtained by averaging where the two figures differ.

AS: How long does it take you to run off a one million hand simulation in order to test a system, such as you used for your "Development and Analysis" paper?

Braun: With the program that I have, and an IBM 370 model 155 or 158 computer it takes approximately three minutes. There are faster computers that would do it in less than a minute.

AS: In the March issue of *Gambling Times*, Stanley Roberts published a reassessment by you of estimated win rates for various count systems, including Uston's Advanced Point Count. Did you use your simulation program recently to obtain these results, which Roberts reported he obtained from you by phone?

Braun: I never evaluated the Uston count on the computer I think I just mentioned to Roberts what I thought the Uston count would do. I've never run it on the computer, so I don't have precise statistics on it. I can evaluate what I think the Uston count would do simply by looking at Griffin's work. AS: Did you ever consider making money as a card counter?

Braun: There was a time when I was playing more frequently, and was even barred in one casino. Some years ago, I spent four weeks in Reno and played here and there. The Nevada Club had the best rules at the time. They were still dealing a single deck all the way down to the bottom. In addition, they allowed you to double-down on 9, 10 or 11, rather than just 10 or 11 like most of the other Reno casinos.

AS: How long ago was this?

Braun: At least ten years ago. I haven't played any serious blackjack for years now.

AS: What sort of stakes were you playing for then?

Braun: Very mild. I generally bet from two to ten dollars. I played at the Nevada Club rather regularly. After about a week, even though I wasn't betting real big or winning any tremendous amounts of money, they decided the fact that they weren't beating me out of my money was indicative enough. So I walked in one day and a pit boss motioned to me and very politely said, "The owner has observed you playing, and he has decided that he doesn't want your action anymore." I didn't argue.

AS: What system were you using?

BRAUN: I was using the Hi-Lo system.

AS: You wrote to me that the "Money Management" chapter in your book, *How to Play Winning Blackjack,* which advises the player to watch for "hot streaks" and use betting progressions, had been written by Harry Fund, your publisher. Were you aware, prior to its being published, of the contents of that chapter, and have you spoken to him personally about your feelings about it being included under your name?

Braun: Yes, but he wanted to get his two cents in and he was the publisher.

AS: In that chapter, he writes as if he were you.

Braun: I know. He was writing under my name because he's using my name to sell the book. He wrote a lot of the other stuff too. I don't claim to be a book writer, per se. He wrote all the colorful stuff and the background, and I wrote all the technical stuff for the book. The only thing I got in on the Money Management chapter was the footnote at the end.

AS: That footnote seemed to be the only intelligent part of that chapter.

Braun: I wrote the footnote because I was trying to play down what he'd written in the rest of the chapter. The thing is, there are a lot of people who like to play that way.

AS: Do you mind all the back-stabbing and name calling that's going on in the blackjack scene?

Julian Braun: Not particularly, but I wish it wasn't there.