### ☆ LETTERS TO THE EDITOR ☆

Dear Editor,

In his *TDN* column "Blinded By The Light" (Feb. 20th), Bill Oppenheim was on target, on several fronts, with his typically insightful data-driven commentary. His observations begin by revealing the fundamental obstacle and limitation inherent in trying to make a case for the existence and nature of "true" nicks. As Bill implies, most hypotheses and generalizations about so-called "nicks" are typically formulated on meager and statistically inadequate sample size and therefore have questionable predictive value.

For sure, pedigrees are wonderful things, possess intrinsic beauty, and have the capacity to trigger our fondest memories. Furthermore, their historical significance provides a fascinating source for intellectual stimulation and aesthetic appreciation. And it makes common sense to study them and to think that quality racehorses will beget quality racehorses. Yet if our preoccupation with pedigrees can yield any practical utility, their value would be found in our ability to analyze the historical detail and emerge with an improved probability of achieving a stakes performer from a particular mating. Toward that end, however, it is not descriptively useful to be told that a proposed mating is an A + or a C or has an index of 71.93. Instead, we need probability statements that are anchored in substantive data. Letter cont. p3

We need to be told that, based on X number of prior identical or closely similar matings, we have an X probability of breeding a stakes horse.

The problem for most "nicking" paradigms is that the number of prior comparisons in most samples is nearly always either too small or too dissimilar to provide a meaningful (statistically significant) predictive correlation. Unfortunately, this doesn't seem to stop us, in the face of uncertainty and great monetary expenditure, from grabbing on to them and seeking comfort in pointing to something that happened some place, some time. But because something happens a couple of times does not mean that it is likely to happen again. A handful of occurrences does not create a statistically viable pattern or a sound basis for statistically significant prediction. Thus, "nicks" derived from small samples are perhaps the most visible poster children for our widespread industry tendency to attribute broad meaning from a small number of events.

In more formal terms, attempting to explain or predict an event based on a small number of occurrences defies the laws of Logical Composition. When we draw conclusions (and base our beliefs) on an insufficient sample size, we are particularly subject to the Fallacy of Composition, which arises when we infer that what is true of a part of something is also true of the whole. This fallacy, in turn, frequently spawns a closely related fallacy which we know, in colloquial terms, as the Hasty Generalization. This fallacy has many false faces and disguises that impinge on us daily. Hasty Generalization examples abound at every turn. Someone says that they have a really good foal by a new stallion, so the word is out that the stallion is getting really good foals. A mare has a bad foal and she "needs to find another home." A trainer has a horse that doesn't work out and he won't buy another by the same sire, etc., etc.

Yet, fallacies related to Logical Composition are not the only logical fallacies that work to reduce our sales scene toward its lowest common denominator. With regard to our irrational obsession with first year sires, for example, we see a prime incidence of the fallacy of Argumentum ad Ignorantium. Simply put, this fallacy occurs when it's argued that something must be true, simply because it hasn't been proved false. How else can we explain the illogic of looking past proven stallions to line up for stallions who haven't even produced a runner? And, of course, we continue to find comfort in numbers and conformity as we embrace the fallacy of Argumentum ad Numerum. Plain and simple, this fallacy asserts that the more people who support a belief, the more likely it is that it is correct. Regards, Rob Whiteley

Editor's Note: Rob Whiteley, a commercial breeder, is owner of Liberation Farm. A former professor, Rob took his statistics and logic classes at Stanford and Harvard and then was a National Defense Research Fellow during his Ph D studies at the University of California, Berkeley.



## FROM THE DESK OF...

## Bill Oppenheim



#### BLINDED BY THE LIGHT

A few weeks ago I was privileged to be included among a panel of speakers at the ITBA Trade Fair at Goffs. It was a heavyweight lineup, too. I'm sure my journalistic colleague and co-panelist Leo Powell, editor of *The Irish Field*, won't be offended when I say he and I were rather wondering what we were doing up there on the platform with Denis Brosnan, Chariman of Horse Racing Ireland; Nic Coward; and Winfried Engelbrecht-Breges, CEO's of the British Horse Racing Authority and the Hong Kong Jockey Club, respectively. Needless to say, Leo acquitted himself brilliantly, and the other speakers were as interesting and thought-provoking as we'd expected.

The Trade Fair was sponsored by the Irish Thoroughbred Breeders' Association, chaired by Joe Hernon, and it was coordinated by Eddie O'Grady's daughter, the excellent Amber Byrne. There were 85 booths, and Goffs was teeming with people. It's an amazing country, Ireland. It's the only place I know where, when somebody happens to make some serious money (which quite a few Irish have been doing over the last decade), the first thing they think about buying is a horse. We could use a few dozen more countries like that.

One of the most popular booths at the Fair, by all accounts, was that of the G1 Goldmine pedigree website manned by Australian software developer Leo Tsatsaronis. Unfortunately I didn't have a chance to see the seminar he presented, but there were so many people trying to get in they brought him back for an encore the next afternoon. I was sorry I didn't get to meet him; there's always room for good information, and by all accounts the information their website provides is very good. In fact, there's an interesting review by Nancy Sexton, in Monday's *Racing Post*, of G1 Goldmine and the new *Blood-Horse*-sponsored Truenicks, co-produced by another Australian, Byron Rogers, with Alan Porter.

Both products do represent advances in certain respects, as far as I can tell, certainly in the range of the databases they tap into. But, as somebody who also works in the field of pedigree analysis, I'm not convinced that either or both is the Holy Grail they're being cracked up to be. I'm probably somewhat biased, being a competitor, or at least a rival of sorts, but the truth is I'm not at all convinced this rush to measure and index opportunity, in the one case (Truenicks), or indexing individual crosses, as is cited in Nancy's article about the other, really are 'the answer.' I realize both programs do a lot more, and I'm sure both are very useful tools.







182 Copelan's Angel colt

255 Lady Dora colt

233 How So Oiseau filly

# Strong Hope

## 1st Crop 2yos

Fasig-Tipton Calder



31 Pennant Winner colt





48 Restored Hope filly

81 Smooth and Classy filly



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But is "Compton Place over Night Shift" (index 71.93) really a better cross than "Sadler's Wells over Darshaan" (index 2.26)? It's simply that Compton Place has had several early successes over Night Shift, from a very small sample size. Sod's Law, as well as the Law of Averages and the Laws of Probability, virtually guarantee that the next 50 times it's tried, the results won't be as impressive.

It's the same sort of rush of fashion as we saw when Believe It had early successes over the Raise a Native line, or when Storm Bird had Storm Cat (in his first crop) out of a Secretariat mare. Storm Cat was a foal of 1983, and in 1987-1988 Storm Bird had three more A Runners out of Secretariat mares, including Summer Squall (whose dam produced A.P. Indy two years later) and Mujadil. I don't know how many Secretariat mares were bred to Storm Bird in his ensuing 11 crops, but I can tell you how many more A Runners there were bred on that cross: zero. And that's my problem with measuring opportunity: when the sample size is so small (evidently, too small), early successes may mean not that this is a great nick, but that whatever successes this cross was going to have happened to come early. I have no doubt success rates drop as the numbers bred on that cross increase, and these raw measurements of opportunity don't take that into account, since as far as I know nobody has done that research (yet). Moreover, when you consider even ABC Rrunners are only 8 percent of the population, the odds are stacked against success. It's no wonder the trend lines flatten as the number of cases increase.