

Biostatistics and Data Management – A match made in.....Tasmania?

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ABSTRACT

The relationship between the functional teams of Biostatistics and Data Management is very important and very complex. It is very stressful and aggravating but, at the same time, it is gratifying and rewarding. It is a *complex* relationship. I did not realize the magnitude of the complexity and mutual need that existed between these two groups until I ended up being the lone Biostatistics person in a CRF workshop at a Clinical Data Management conference. Shortly thereafter, I also saw a documentary about relationships among Tasmanian Devils and I immediately saw a parallel that created the inspiration for this paper.

INTRODUCTION

Tasmanian devils (hereafter known affectionately as T-devils) are solitary animals and both the male and female are fiercely independent. Each respective gender is more than capable of surviving in the wild completely on their own. It may be difficult to draw any comparisons right now between the T-devils and clinical trials personnel, but, please bear with me, and you will see what I mean.

THE NATURE OF THE BEAST(S)

As mentioned above, T-devils are solitary and independent. They are also quite resourceful. Both male and female are equipped with sharp teeth and claws and can hunt small mammals and birds. But, why expend the energy involved with hunting? Both genders of the T-devil would prefer it if someone else were to do the work so they exist primarily on carrion (or, as it is affectionately known to us in the USA, "roadkill"). A rotting wallaby carcass with do just fine for dinner. And, T-devil does NOT like to share. Imagine his rationale....."Go get your own wallaby carcass! I worked very hard to steal this one from someone else and I am not about to share it with you!". And then he will devour the whole thing....flesh, bones, beaks .everything. This paper was originally intended to be presented in front of an audience and I was going to show a short video clip of some T-devils in their natural environs. But, since this is being presented as a poster, have a look at the picture below and try to imagine the scene that I have described above.



Just like each gender of Tasmanian devil, both Biostatistics and Data Management folks are not only fully capable of performing our own designated functions, but we also know quite a bit about the function of our colleagues in the other department. We are independent entities yet still joined together by nature. Not by a physical nature such as the t-devils, but the nature of our profession. And, like the T-devils, we all need sustenance. Only, instead of birds and small mammals, it is DATA that sustains us professionally.

Most of us can probably think back and remember when we received a batch of data that resembled a rotting carcass ☹. Someone else had been into that data before we got it, whether it was a sponsor organization or, perhaps, personnel at the study site or even a third-party vendor. So, now we find it has become a bit rank and smelly. Though each project is different, it is typically the data management team that gets the first indication of what will be on the dinner table very shortly. And, as their nature compels them, they dig in and feast on that rotten data! They clean and query and, eventually, the rotten data will become less and less.

While data management is still working on the data “carcass”, Biostatistics will begin trying to wrestle it away for their own use, much like one t-devil would do to another. Biostats will take the data and “chew” on the data for a while. When the programmers and statisticians get what they want from the data, then Data Management will, once again, claim it back. Biostats and DM do not fight over the data like the devils fight over their food, but the analogy still applies. This process continues back and forth until the bones of the data have been picked clean.

UNIFIED FOR A PURPOSE

Even though, when it comes to food, the Tasmanian devils become quite adversarial and competitive, there does come a time when they unite for a common purpose. In order to propagate their species, the male and female devils must come together for a short time and join forces to accomplish this. This process is not necessarily a pleasant one and there is a lot of growling and snarling going on. But, nature takes over, as well as the desire to get the job done and the mating process takes place. The mission is accomplished! Now, the devils can once again go their solitary ways until nature beckons again.

Once again, a parallel can be drawn. Biostatistics and Data Management each aggressively attack the data and are sometimes at odds with each other. But, in the end, there is a common purpose and these groups will unite to accomplish it. The t-devils unite to procreate and Biostats and Data Management unite to propagate the facts revealed by clean data and an accurate picture of the results of a clinical trial. A new drug therapy can be deemed as a success or a failure based on this joint effort between Biostatistics and Data Management. This is an important partnership and, like the Tasmanian Devil, the mission is accomplished!

CONCLUSION

You probably thought that I was really straining for similarities when I started this presentation but, I hope, you are now able to see the comparison that I see. Biostatistics and Data management CAN co-exist! So, let's remember that even though each group may feel solitary, and there may indeed be disagreements between the groups leading to some “growling and snarling”, one group cannot efficiently do their job without the other. Thank you, Tasmanian Devils, for setting this stunning example for those of us in the pharmaceutical industry!

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