

Hiawatha
by
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1. Hiawatha, mighty hunter,
He could shoot ten arrows upward,
Shoot them with such strength and swiftness
That the last had left the bow-string
Ere the first to earth descended.
This was commonly regarded
As a feat of skill and cunning.

2. One or two sarcastic spirits
Pointed out to him, however,
That it might be much more useful
If he sometimes hit the target.
Why not shoot a little straighter
And employ a smaller sample?

3. Hiawatha, who at college
Majored in applied statistics,
Consequently felt entitled
To instruct his fellow men on
Any subject whatsoever,
Waxed exceedingly indignant,
Talked about the law of error,
Talked about truncated normals,
Talked of loss of information,
Talked about his lack of bias,
Pointed out that in the long run
Independent observations,
Even though they missed the target,
Had an average point of impact
Very near the spot he aimed at,
(With the possible exception
Of a set of measure zero.)

4. This, they said, was rather doubtful
Anyway it didn't matter.
What resulted in the long run;
Either he must hit the target
Much more often than at present
Or himself would have to pay for
All the arrows he had wasted.

4. Hiawatha, in a temper,
Quoted parts of R. A. Fisher,
Quoted Yates and quoted Finney,
Quoted reams of Oscar Kempthorne,
Quoted Anderson and Bancroft
(practically in extenso)
Trying to impress upon them
That what actually mattered
Was to estimate the error.

6. One or two of them admitted:
Such a thing might have its uses
Still, they said, he would do better
If he shot a little straighter.

7. Hiawatha, to convince them
Organized a shooting contest.
Laid out in the proper manner
Of designs experimental
Recommended in the textbooks,
Mainly used for tasting tea
(but sometimes used in other cases)
Used factorial arrangements
And the theory of Galois
Got a nicely balanced layout
And successfully confounded
Second order interactions.

8. All the other tribal marksmen
Ignorant benighted creatures
Of experimental setups
Used their time of preparation
Putting in a lot of practice
Merely shooting at the target.

9. Thus it happened in the contest
That their scores were most impressive
With one solitary exception.
This, I hate to have to say it
Was the score of Hiawatha
Who as usual shot his arrows,
Shot them with great strength and swiftness,
Managing to be unbiased,
Not however with his salvo
Managing to hit the target.

10. "There!" they said to Hiawatha,
"That is what we all expected."

11. Hiawatha, nothing daunted,
Called for pen and called for paper.
Did analyses of variance
Finally produced the figures
Showing beyond all peradventure
Everybody else was biased.
And the variance components
Did not differ from each other's,
Or from Hiawatha's.
(This last point, one should acknowledge,
Would have been much more convincing
If he hadn't been compelled to
Estimate his own components
From experimental plots on
Which the values all were missing.)
Still they couldn't understand it,
So they couldn't raise objections.
(Which is what so often happens
With analyses of variance.)

12. All the same his fellow tribesmen,
Ignorant benighted heathens,
Took away his bow and arrows,
Said that though my Hiawatha
Was a brilliant statistician
He was useless as a bowman.
As for variance components
Several of the more outspoken
Made primeval observations
Hurtful of the finer feelings
Even of a statistician.

13. In a corner of the forest
Dwells alone my Hiawatha
Permanently cogitating
On the normal law of error
Wondering in idle moments
Whether an increased precision
Might perhaps be rather better
Even at the risk of bias,
If thereby one now and then, could
Register upon the target.