

## Catcher Spotting: A Preliminary Study of Pitcher Intent

Andrew C. Thomas

While pitch velocity, type and destination are all currently well-recorded statistics, an area ignored by baseball statisticians is the original intent of the pitcher-catcher in choosing and executing a particular pitch. This is an area that qualitative commentators, such as television analysts, have been long aware – for example, broadcasters will often comment about a pitcher “missing his spots” if pitches are not placed as expected. On the other hand, they will also suggest that a pitcher made a “mistake” if a pitch intending to cut the corner instead floats over the middle of the plate, as if the pitcher had intended to do so in the first place.

One measure of pitcher intent is the knowledge of the catcher, who communicates to the pitcher the type and target of each pitch through hand signals, meetings at the mound, and pre-game planning, as well as from the history of interaction of the pitcher and catcher (and perhaps the coaching staff, who pass these messages through the catcher.) While we cannot read minds, we can read body language and take note of the catcher's body and glove position as the pitch is being delivered, where well-prepared catchers will likely move very little during the delivery. Detecting when a catcher's extra movement is the result of intentional deception, or by wild control, must therefore be a judgement call on behalf of the observer.

I spoke to two people involved with baseball for their perspectives on the tracking of pitcher intent through catcher spotting. Alan Schwarz, sportswriter for Baseball America and the New York Times, was skeptical that the approach could be implemented due to the addition of error from human observation and the differing perceptions of game scribes.

Rance Mulliniks, television analyst for the Toronto Blue Jays, spoke to me about the perceptions of television observers in spotting pitcher intent; he responded positively to my suggestion that a pitcher has eight basic targets, considering the plate as a three-by-three grid where the pitcher aims at the eight border squares and avoids pitches down the middle.

These two comments lead me to believe that while development in this area has been limited to qualitative observation, there is a great deal to be gained by taking even a preliminary look at these type of data. However, there is no data set I am aware of that tracks and records the intended target of pitches; MLB Gameday and Questec are two systems that record the trajectory and destination of each pitch through video tracking without the need for human adjustment (after initial calibration).

What I propose is to create a database of intended pitch targets to supplement Gameday information, while developing a simple method for recording accurate data, depending on both the method of transcription and the means to determine and control for the biases of individual record-keepers. Before collecting data over a large number of innings, we must first establish that scribes record events as similarly to each other as possible, by having a large group of scribes record data from a “test” set and compare them using a measure of inter-coder reliability, an important concept for evaluating subjectively measured data. I am therefore soliciting the help of any interested data gatherers to collect catcher spotting data – the intended and actual targets of pitches – using a web-based mechanism available at <http://www.acthomas.ca/catcher/>.

Following this preliminary study, we will determine whether a larger, longer-term data collection is justified and/or useful to pursue.