**Carl Losito**

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**Identifying Randomness**

How Likely are “Streaks” in Sports?

In our American society, talented individuals sometimes address the notion that “good practice makes perfect.” Yet, statisticians sometimes ponder the validity of this statement. Statisticians ask whether good practice grants the power to make possibilities more perfect, or even, more likely to occur. This dilemma stifles statisticians since they believe that probability and chance appear to be major determinants in extraordinary achievements. For example, they believe impressive streaks in sports exemplify that there exists a controversy between random chance and mere talent. Thus, people assume that talent decides whether individuals will have an amazing season or a spectacular hitting streak like that of Joe DiMaggio in his 1941 season. However, others credit this success to the law of randomness. In Leonard Mlodinow’s Wall Street Journal article, “The Triumph of the Random From banking to baseball, winning streaks owe much to the laws of chance” he provides supportive details in which streaks receive aid through chance. Although his reasons appear well developed, it still remains questionable whether talent can truly be ignored in making assumptions about streaks. Therefore, Joe DiMaggio’s 1941 56-game hitting streak reveals the differing sides to this complicated argument.

Mlodinow allocates the notion that chance acts as a stronger determinant than people want to accredit in sports. This idea was difficult to accept since many individuals appreciate that baseball players embrace incredible amounts of talent. Yet due to the law of randomness, unbelievable achievements occur more frequently than individuals assume. Mlodinow further enhances his argument by declaring that Joe DiMaggio’s 56-game hitting streak in baseball could very likely have been achieved by another person. This concept seems even more surprising since Mlodinow states that this honor would be met “even if each player hit with unheroic and unmiraculous—but steady—ability of an emotionless robot.” Disproving many skeptical opinions on this topic, Mlodinow simulated 10,000 universes of baseball identifying whether longer hitting streaks would be possible. The evidence proved that in those random scenarios many other players, especially Ty Cobb, shared the record more often than DiMaggio did. Thus, Mlodinow established that people’s intuitions had to recognize the possibility of randomness in DiMaggio’s accomplishment.

Additionally, Mlodinow concluded that individuals usually sought for patterns in events. Rather than proclaim that chance sometimes determined unusual outcomes, people decided to attribute events due to unique patterns. Mlodinow showed that this thought process related to the randomness in shooting a basketball because “when an 80% free throw shooter in the NBA has that level of success people have a hard time accepting that it isn’t [chance].” Skill became a questionable component in this equation since the power of chance seemed to overpower its existence. Various individuals rejected the power of randomness simply because they wanted to maintain stability. They questioned the reliability in probabilities because fixed amounts like ten draws did not reflect its expected percentage of say 60 percent. Yet, one example of this randomness appeared when an individual thought he would draw six out of ten draws consistently if he possessed a 60 percent success rate. Unfortunately, this number rarely occurred. However, once the person took the time to expand the number of draws it became appreciated that larger numbers revealed more likely probabilities.

Although Mlodinow’s well-proven statement realistically addressed the probability and chance in some sport scenarios, talent could not be disregarded in activities requiring exceptional coordination skills. Mlodinow’s argument disproved any debate on whether chance factored into individuals’ accomplishments, but it did not honorably justify the fact that individuals appear very skilled. Mlodinow made the point that in 10,000 simulated tries other baseball players, especially Ty Cobb who held it 300 times, captured the longest hitting streak. Yet, was it merely coincidental that Ty Cobb had one of the highest batting average of all-time at .366?[[1]](#footnote-1) Like Ty Cobb, DiMaggio maintained an above .300 lifetime batting average at exactly .325. This average signified that during every at bat DiMaggio had a 32.5% chance of getting a hit based on his previous plate appearances. Therefore, the argument Mlodinow implied in which chance acted as the sole determinant in hitting streaks seemed questionable.

Another declaration Mlodinow proclaimed dealt with flipping a two-sided coin and noticing that “in a toss of 100 coins, the chances are more than 75% that you will see a streak of six or more heads or tails.” He disputed that such a streak, similar to that in DiMaggio’s hitting streak, might look quite impressive even if it was strictly decided by chance. However, this idea shared flaws because every plate appearance in baseball held more than two possible outcomes. The possible outcomes for a baseball player during each at bat were possibly acquiring a hit, getting out, reaching base on a walk, getting hit by a pitch, or sacrificing an out for another player. These five choices changed the simple probability of “a coin” and further extended the unlikelihood that chance appeared to be the reason for his consecutively received hits.

Furthermore, the Wall Street Journal article mentioned that the consecutive hitting streak, regardless of DiMaggio, would have occurred at some point by some other consistent baseball player. If that seemed to be the case why had not another player broken DiMaggio’s streak in the last 68 years? Also, it can be argued that if DiMaggio did not set that prodigious accomplishment then the best hitting streak in baseball now would have been significantly lower. Yet, if that hypothetical hitting streak record was significantly lower today would not that recognize that DiMaggio’s talent did spark his tremendous streak? In baseball, chance ignores the confounding factors that players dealt with during each game. For instance, how old a player was, what ballpark was the game in, how many pitches did the player receive, how was the weather that season, how many left-handed pitchers did he face, was the baseball player in a strong physical and mental state, etc. It could be said that all players managed these predicaments, but it could not be proven that each player adjusted in the same way. This capability to adjust described the natural ability in each player. Therefore, that ability must be accounted for in a sport convoluted with chance.

It can be argued that human elements were accounted for by probability since all individuals experienced similar emotions. However, in sports certain elements varied significantly in individuals. It became assumed that numerous Major League players had great reaction times, impressive hand-eye coordination, and similar bat speeds, but were they all psychologically similar in handling pressure? The article mentioned how Roger Maris began to lose his hair from the stress during his season of 61 homeruns. Yet, the article did not mention any kind of an effect on DiMaggio while he shattered one of the longest streaks in history. Furthermore, the article justified Maris’s stress with the statement that “most records forgive you an off day as long as you compensate at other times.” However, DiMaggio’s record did not allow for there to be such an “off day” since his feat came consecutively. The question developed whether someone of Maris’s caliber could have handled the same pressure that DiMaggio consumed each game. The fact that this dilemma could be possible supported the notion that individuals’ emotions from pressure did vary from person to person.

In the long run, the law of randomness would affect the sport of baseball. Yet, it still could not be assumed that mere talent defined a player. It was evident that a player shared the same probability that he would possibly see a great pitch or a terrible one during each at bat. The article mentioned how people loved to attribute sports to talent since they “appreciate struggle and effort, triumphing despite huge odds.” Despite this detailed article, I partially sided with the people who appreciated struggle and effort. Talent seemed to always allow the better players to receive greater attention and accomplish major tasks. As a former baseball player and fan, I understood the unpredictable aspects of the sport. However, it would not seem fair or appropriate if I did struggle during times and blamed my inconsistency on the notion of chance. Therefore in baseball, talent must be a determinant in which the mentally and physically stronger players could prevail. Now, the question remained on classifying the determinant value of talent in sports.

1. “Ty Cobb Statistics and History,” Baseball-Reference.com 2000-2009, 21 Feb. 2010 <<http://www.baseball-reference.com/players/c/cobbty01.shtml?redir>>. [↑](#footnote-ref-1)