Psychology of Sport and Exercise 16 (2015) 130–138

Contents lists available at ScienceDirect

Psychology of Sport and Exercise

journal homepage: www.elsevier.com/locate/psychsport

Do clutch players win the game? Testing the validity of the clutch player's reputation in basketball

Yosef Solomonov [a], Simcha Avugos [a, b, *], Michael Bar-Eli [a, b]

[a] Department of Business Administration, Guilford Glazer Faculty of Business and Management, Ben-Gurion University of the Negev, Beer-Sheva, Israel
[b] Zinman College of Physical Education and Sport Sciences, Wingate Institute, Israel

ARTICLE INFO

Article history:
Received 3 March 2013
Received in revised form
8 October 2014
Accepted 9 October 2014
Available online 23 October 2014

Keywords:
Clutch
Reputation
Hot hand
Decision making
Sport

ABSTRACT

Objectives: The sport psychology literature recognizes the existence of clutch behavior among elite athletes. The present study questions the validity of the clutch reputation in basketball. The performance of clutch players was compared to that of their teammates, using a broad approach that included different performance measures.
Design: Eight basketball experts ranked NBA players according to their perceived reputation of being clutch shooters. The selection procedure resulted in a sample of 16 clutch players who had successfully made a game-deciding shot, or had made a successful shot in the final few minutes to tie the game, during the 2003–2006 seasons.
Method: Data were collected from play-by-play reports of 222 tied NBA games during the 2005–2006 season and playoffs. Data were reduced to the final five minutes of the second and fourth quarters in each close/tied game. A MANOVA and several ANOVAs were conducted in order to compare the performance measures of the clutch players and the average of their teammates, in game phases of low and high pressure.
Results: The reported main effects of clutch versus non-clutch players suggest a superior performance of the clutch players. The results also show that the clutch players improved their performance in the final, most decisive phase of the game, which could be interpreted as evidence for clutch ability. However, the clutch players did not improve their general shooting skills, as might have been expected.
Conclusions: Top NBA players, like most other people, do not perform better under pressure situations, at least not while considering their chances of making a shot, but clutch players do influence the end-result of the game in other aspects.

The sport psychology literature recognizes the existence of clutch behavior among elite athletes. At least five theoretical frameworks have been suggested to explain it (Wilson, 2012). The term "clutch" is commonly used to describe any performance–increment or superior performance, relatively better than usual standards, that occurs under pressure circumstances (Albert, 2007; Otten, 2009). It often refers to high levels of performance in a critical situation, typically that of a game-deciding shot or the final few minutes in a close/tied match. Baumeister (1984, p. 610) defined pressure as "any factor or combination of factors that increase the importance of performing well on a particular occasion". This includes many occasions where an outstanding performance means the difference between winning and losing.

When reviewing the names of athletes who have been labeled as clutch players during their careers, one will find the best and most exceptional players, for example Mariano Rivera and David Ortiz in baseball, Michael Jordan and Dirk Nowitzki in basketball, Romario and Zidane in soccer, and Tiger Woods in golf, along with the average ones who apparently were able to dramatically raise the level of their performance in the clutch (such as basketball players Robert Horry, Steve Kerr, and Derek Fisher, and golfer Andy North). An athlete's reputation for being a clutch player often reflects a certain innate ability that some players possess while others do not. For example, former NBA player Jerry West had such a notable reputation as a clutch player in the 1960s and 1970s that he was given the nickname "Mr. Clutch". He was considered to "have what it takes" to make the winning point at a critical time in the game. Other examples are baseball players Reggie Jackson (who

* Corresponding author. Department of Business Administration, Guilford Glazer Faculty of Business and Management, Ben-Gurion University of the Negev, P.O. Box 653, Beer-Sheva 84105, Israel.
E-mail address: avugos@bgu.ac.il (S. Avugos).

http://dx.doi.org/10.1016/j.psychsport.2014.10.004
1469-0292/

was famous as "Mr. October" due to his alleged ability to elevate his performance in the postseason), Jack Morris (who had a reputation as a "money pitcher"), and the perceived clutch hitter Derek Jeter.

Believing in clutch ability might have some strategic consequences related to how players and coaches conduct the game. For example, managers may decide during critical, pressure-packed situations to put in their clutch players, or to deliberately direct the game towards a player who is considered to excel in a clutch situation. A clutch player holds a position of high honor and responsibility, as this player is supposed to improve his or her team's chances of winning the game. Both players and fans have a high regard for the clutch player's role in pressure situations. The reputation of being a clutch player might also provide tangible and valuable rewards within and outside the competitive arena. Therefore, the incentive to acquire this superior athletic reputation is likely to be strong, and the incentive to maintain it might be even stronger.

Clutch ability research

The issue of whether clutch ability actually exists has been investigated and discussed mostly in the game of baseball (e.g., Albert, 2001, 2005; Bronstein, 2001; Conlon, 1990; Cramer, 1977; Neyer, 1999; Otten, 2009; Otten & Barrett, 2013; Palmer, 1985, 1990; Wood, 1989; Zaidlin, 1999). For example, in a more recent study Otten and Barrett (2013) reviewed players' data from 109 years of Major League Baseball (MLB) statistics. However, the results from all these studies did not reflect any meaningful ability of players to perform better in clutch relative to non-clutch situations. In his 1984 *Baseball Abstract*, baseball expert Bill James skeptically questions if it is even worth searching for clutch ability without a clear understanding of the mechanisms underlying this phenomenon: "If there is such a thing as 'clutch ability', then exactly what is it? We know what its signs would be, but what is it? How is it that a player who possesses the reflexes and the batting stroke and the knowledge and the experience to be a .260 hitter in other circumstances magically becomes a .300 hitter when the game is on the line? How does that happen? What is the process? What are the effects? Until we can answer those questions, I see little point in talking about clutch ability" (quoted in Albert, 2001, p. 15).

If clutch ability is to be attributed to an individual skill in addition to various situational influences (such as a reliance on implicit knowledge when pressured), as psychologists often assume, then one would expect that clutch players will exhibit such a tendency over multiple seasons. Based on such reasoning, most studies on this topic have applied a year-to-year comparison of players' performances in clutch and non-clutch situations. Cramer's (1977) classic study was the first to follow such a rationale. Cramer examined the performance records of 122 professional baseball players in the 1969 and 1970 seasons. He calculated the amount that these players contributed to their team's chances of winning over the season (PWA), and compared it to their raw batting win average (BWA). The difference between these two measurers reflected the players' observed "clutchness". Comparing clutchness over seasons, Cramer found that the best clutch hitters in 1969 reverted to their normal level in 1970 (r-square of .038 for National League players, and .055 for American League players). Given the lack of consistency in the data (which is reflected in the small correlation values), Cramer concluded that players' performances over seasons could simply be due to chance, and that clutch hitting as an ability does not exist and must be just a matter of luck.

The majority of follow-up studies challenging Cramer's findings were also unable to detect clutch ability. Palmer (1985) showed that clutch pitchers do not exist either. He found that a baseball pitcher's probability of winning a game was not higher than that which could be expected by chance. A follow-up study (Palmer, 1990), which tested for clutch talent over a 10-year period using players' batting averages, confirmed Palmer's preliminary conclusion. The latter study was not concerned with the question of whether results were consistent from one year to the next, but rather whether they could be explained solely by random forces. However, the results showed that the actual distribution of players' hits in the clutch was perfectly consistent with a normal distribution – that is, nothing over and above the random effect.

Ruane (2005) conducted a very similar analysis to Palmer's (1990) study, but with a much larger numbers of at-bats, extending over a period from 1960 to 2004. Comparing players' ability in both clutch and non-clutch situations over the course of their careers, Ruane arrived at the same conclusions as Palmer. Even when using a more sensitive procedure to detect the consistency in clutch ability, as suggested by Conlon (1990) and James (2005a, 2005b), support was not provided for the existence of the clutch phenomenon (Birnbaum, 2005). Palmer and Cramer (2008) extended their analysis to include 50 years of play-by-play data, using win probabilities as a measure of clutchness. The overall results of several sub-studies within this research suggested that clutchness is a random effect.

Still, a number of scholars (e.g., Albert, 2007; Dolphin, 2004; Silver, 2006; Tango, Lichtman, & Dolphin, 2007) believe that there is some evidence for clutch ability, and several top clutch baseball players were clearly identified in these studies. So the debate on this issue is far from being settled. In any case, it is already quite accepted that the clutch effect is much smaller (if it really does exist) than players and fans believe it to be. Even if a few clutch hitters do exist, the clutch performance effect is probably too small to make a practical difference on the outcome of a pennant race (Cramer, 1977). However, despite the evidence to the contrary, many people still consistently believe in the idea of the clutch hitter.

The belief in clutch ability is commonly attributed to a general tendency to retain the occurrence of the more dramatic events embedded in a normal course of experiences (which relates to the *availability* heuristic: a mental shortcut that relies on immediate examples, such as related events or situations, that come to mind; as a result, one might judge that those events are more frequent and possible than others). Thus, it is possible that players who had several memorable hits in critical games, especially in the early stages of their careers, would be considered by both themselves and others as being clutch hitters. Players and fans would then expect similar performances in the future from those players, erroneously reinforcing their belief over time. Alternately, this belief could be attributed to a general tendency to detect clumps in random sequences, even when none exist (which relates to the *representativeness* heuristic), as previously demonstrated in the framework of "hot hand" studies (e.g., Gilovich, Vallone, & Tversky, 1985). These cognitive biases were first recognized and documented by the psychologists Amos Tversky and Daniel Kahneman (see Tversky & Kahneman, 1974).

Clutch reputation versus hot hand belief

The term "hot hand" refers to the common belief that a player's chances of success during a particular period within a game are significantly higher than his or her overall base rate (Gilovich et al., 1985). For example, after a few consecutive successful shots, the basketball player is assumed to be in a psychological state that enhances his or her chances of scoring the next shot(s) as well. However, the majority of hot hand studies conducted over the last three decades have concluded that unusual streaks are exceptionally singular events, most likely associated with great athletic skill