

PSYCHOLOGY STRIKES OUT: Coleman R. Griffith and the Chicago Cubs

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Coleman R. Griffith is widely known as the father of sport psychology in the United States. He directed the Research in Athletics Laboratory at the University of Illinois in the late 1920s and early 1930s and produced many articles and books on the psychology of sport. In 1938, P. K. Wrigley, owner of the Chicago Cubs, hired him to help improve the team's performance. Griffith and an assistant filmed and measured the players' skills, attempting to build a "scientific" training program for the team. Many of Griffith's subjects, most notably the managers, objected to his interference (as they saw it) and attempted to undermine his work. Griffith wrote more than 600 pages of reports on his work with the Cubs between 1938 and 1940. This article examines the content of those reports and the reasons for the failure of Griffith's project.

Coleman Roberts Griffith is widely known in sport psychology circles as the "father" of the American form of the discipline (see, e.g., Bäumlér, 1997; Benjamin, 1993; Gould & Pick, 1995; Kroll & Lewis, 1970/1978; Singer, 1989; Swoap, 1998, 2000). The Association for the Advancement of Applied Sport Psychology has named an annual award lecture in his honor.¹ In this article, I examine Griffith's attempts to bring his scientific approach to the psychology of sport to bear on the managing, training, and scouting regimens of the Chicago

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¹ There is an element of disciplinary "origin myth" about this: There is no direct connection between Griffith and those who first formed the discipline of sport psychology in the 1960s and 1970s. Griffith appears to have had no doctoral students at all who continued or built on the work he did related to sport (although there appear to have been a handful of relevant master's students). Indeed, Griffith himself ended his research on the psychology of sport by 1940. Instead, it appears that when the sport psychologists of the 1960s began searching for precedents and early authorities to lend historical weight to their claims to being members of a distinct discipline, they rediscovered Griffith, as the standardly cited reference—Kroll and Lewis's "America's First Sports Psychologist" (1970/1978)—attests.

Cubs Baseball Club. These efforts took place mainly in 1938 but continued on, in reduced form, through 1939 and 1940. Although Griffith had worked with college sports teams in the 1920s and 1930s, his work with the Cubs may have been the first long-term interaction between a psychologist and a professional sports franchise in history. In the main, his efforts to bring about significant change in the way the Cubs conducted themselves were in large measure a failure: The Cubs and the rest of major league baseball carried on much as they had before his arrival. Throughout this article, I attempt to elucidate the reasons for this outcome. I begin, however, with some background on Griffith and on the person who hired him to work with the Cubs, P. K. Wrigley.

Griffith's Early Career

Griffith was born in 1893 in Guthrie Center, Iowa, about 50 miles west of Des Moines. He completed his undergraduate work in 1915 at Greenville College (in Illinois), a Christian liberal arts institution about 40 miles northeast of St. Louis. There he played on the varsity baseball team (Gould & Pick, 1995, p. 393) and engaged in many other sporting activities. After a year of teaching at Greenville, he went on to graduate work at the University of Illinois, earning a PhD in 1920 under the supervision of Madison Bentley, a one-time student of E. B. Titchener and the man who would take over the Cornell psychology department after Titchener's death in 1927. As early as 1918, Griffith made "a series of informal observations" on "psychological factors involved in football and basketball" (Griffith, 1930, p. 35). His dissertation research, however, focused on the vestibular system (see Griffith, 1920, 1922). Soon after graduating, he was appointed assistant professor at Illinois. He immediately offered an introductory psychology course tailored to the interests of athletes (Griffith, 1930, p. 35). In 1923, he offered for the first time a course entitled "Psychology and Athletics," and he published his first textbook, *General Introduction to Psychology*. At about the same time, Griffith began corresponding with a number of college football coaches and players about psychological aspects of the game, the most famous of whom were Notre Dame coach Knute Rockne and star Illinois player Red Grange (see, e.g., Benjamin, 1993).

He soon published what was perhaps his most important article, "Psychology and Its Relation to Athletic Competition" (Griffith, 1925), in which he first put forward the general case for the value of scientific psychological research to athletic competition. "The athlete who goes into a contest," he wrote, "is a mind-body organism and not merely a physiological machine." He presented his "fundamental proposition" of athletics as follows:

The more mind is made use of in athletic competition, the greater will be the skill of our athletes, the finer will be the contest, the higher will be the ideals of sportsmanship displayed, the longer will our games persist in our national life, and the more truly will they lead to those rich personal and social products which we ought to expect of them.

Because of these facts, the psychologist may hope to break into the realm of athletic competition, just as he has already broken into the realms of industry, commerce, medicine, education, and art. (Griffith, 1925, p. 193)

Attempting to pre-empt the obvious question of why we should care so much

about “our games” as to invest into them the time, resources, and effort required for serious scientific study, Griffith proclaimed that “the football field is a place where morale, spirit, courage, honor, sportsmanship, fair play, team work, and the like, are directly taught. We do not learn these things in our courses in mathematics, English, or history” (Griffith, 1925, p. 198). Griffith was clearly a man on a mission of great personal import.

Impressed by Griffith’s work and words, George Huff, the head of the University of Illinois Department of Physical Welfare for Men, convinced the university’s board of trustees to found a Laboratory for Research in Athletics (Griffith, 1930). The first of its kind in America, the laboratory opened in the fall of 1925 with Griffith as its first director. It consisted of more than 1,000 square feet of space, about half of which was devoted to a human psychological research area; the other half was devoted to a workshop, a rat laboratory, and a physiology laboratory. Griffith appears to have worked furiously. He is said to have published more than 40 articles between 1919 and 1931, more than half specifically on the psychology of sport (Gould & Pick, 1995, p. 397).² According to his major report on the activities of the laboratory (Griffith, 1930), attention was focused mainly on football and basketball, though many other sports received mention as well. Baseball was specifically named in 3 of the 25 “topics being considered” for study in the laboratory: (a) Baseball was listed among a number of other sports related to a “photographic analysis of types of muscular coordination during fear,” (b) batting was the main object of a series of “studies on the effect of muscular set on subsequent acts of skill,” and (c) batting was also the topic of one of a number of instructional films then said to be “near completion.” In addition, Griffith indicated that he “devised and put into use. . . a test of baseball ingenuity” (Griffith, 1930, pp. 39–40). Unfortunately, none of this early work by Griffith on baseball seems to have survived.

During this particularly productive period of his life, Griffith also published two textbooks on the psychology of sport: *Psychology of Coaching* (1926) and *Psychology and Athletics* (1928).³ In addition, he spent a portion of the 1926–1927 school year in Berlin as a Guggenheim Fellow. Berlin was the location of the first laboratory dedicated to the scientific study of athletics. Griffith was, of course, aware of this fact (Griffith, 1930, p. 36 n.). There is no direct evidence, however, that he visited this important precursor to his own laboratory.

Despite all this activity, in 1932 the university decided to shut down Griffith’s laboratory. The ostensible reasons had to do with budgetary restraint necessitated by the onset of the Great Depression, but there were also rumors that he had lost

² PsycINFO cites only 18 journal articles authored by Griffith, half of which were closely connected to his doctoral work on the vestibular system, but it fails to capture both his well-known “Psychology and its Relation to Athletic Competition” (1925) and his “A Laboratory for Research in Athletics” (1930), among others. According to Swoap (1998, p. 5), 8 of the more than 40 articles were published in a magazine for coaches and players entitled *Athletic Journal*.

³ This is sometimes mis-cited as *The Psychology of Athletics*. Griffith said that this book was the end-product of his efforts to collect materials appropriate to the course he was teaching under the same title. His earlier book, *Psychology of Coaching*, was, he said, developed “in the meantime, . . . to discuss some of the problems already raised from the point of view of coaching methods. That is, there seemed to be a coaching pedagogy which was not quite touched by the standard courses in methods of teaching” (Griffith, 1930, p. 36).

the support of Illinois football coach Robert Zuppke, who had not seen Griffith's research do much to improve his teams (see Kroll, 1971).⁴ In any case, almost as soon as the Athletic Research Laboratory was closed, Griffith was appointed the University of Illinois' Director of Institutional Research. During the mid-1930s, Griffith authored two more textbooks: *Introduction to Applied Psychology* (1934) and *Introduction to Educational Psychology* (1935). Despite continued productivity in these areas of psychology, it looked as though Griffith's research program into the psychology of sport had come, more or less, to an end.

The Cubs Come Knocking

There would be, however, one more serious attempt to put the psychology of sport "on the map." The opportunity came when Philip Knight Wrigley, the gum magnate and owner of the Chicago Cubs Baseball Club, contacted Griffith in late 1937 about working with the Cubs during the 1938 season. The reasons he did so seem plain enough. Wrigley had long been an advocate of the application of technology and science to business. He was among the first to invest heavily in factory automation when he became president of his father's gum company in 1925. He would later be among the first to bring in computers for staff and accounting work (Furlong, 1969, p. 29). During the 1930s and 1940s, he commissioned empirical research into the putative psychological benefits of gum chewing, and then he used the results to convince the U.S. Army to include his gum in the "K" rations of every U.S. soldier sent overseas during World War II.⁵ He labored as well to convince American business leaders that it was well-nigh their patriotic duty to supply his gum to their workers: "Monotony, fatigue, false thirst, nervous tension. . . these are the agents of the Axis," declared the narrator of promotional film Wrigley commissioned in the 1940s ("Chewing Gum Is a War Material," 1943). Also, of course, it was claimed that all this could be alleviated simply by chewing gum. Wrigley made a fortune, needless to say.

It seems that Wrigley thought that science might be able solve his problems with the Cubs as well, and do so cheaply to boot, so he hired Griffith. Wrigley had

⁴ If these rumors were true, however, it becomes somewhat problematic to explain the existence of the booklength manuscript now housed in the University of Illinois Archives entitled *The Psychology of Football* that Griffith coauthored with Zuppke apparently around 1935 (Swoap, 1998, p. 6). On the one hand, if Griffith knew that the loss of Zuppke's support was crucial to the 1932 closing of his laboratory, then why would he have wanted to collaborate with Zuppke on so extensive a project? On the other hand, if Zuppke believed that Griffith's research findings had little potential for improving real sports teams, then why would he have wanted to write a whole book on the topic with Griffith?

⁵ The story relayed by Golenbock (1996, p. 266) that Wrigley commissioned Columbia psychologist Harry Hollingworth to write *The Psycho-Dynamics of Chewing* (1939) is apparently not in accordance with fact. Letters in the Hollingworth collection at the Archives of the History of American Psychology in Akron, Ohio, show that it was Wrigley's competitors at Beech-Nut who commissioned Hollingworth's monograph, although no mention of this relation appears on the book itself. (I thank Ludy T. Benjamin of Texas A&M University for pointing this out to me.) The *Fortune* magazine article that Golenbock used as his source notes Hollingworth's book without naming its sponsor and then says: "But this was nothing new to Phil Wrigley. Bringing science into chewing gum years ago, he aimed to show a relation not only between nervousness and gum [as Hollingworth had] but between saliva flow and gum" ("Chewing Gum Is a War Material," 1943, p. 126).

inherited the Cubs on the death of his father, William Wrigley Jr., in 1932. The Cubs had been a good team under the elder Wrigley's leadership and continued to be so for a few years with his son at the helm. They went to the World Series in 1932, losing to the New York Yankees in four straight games.⁶ They went to the World Series again in 1935, this time losing to the Detroit Tigers in six games. The younger Wrigley was not, however, the genius in baseball management that he was in the gum business. He thought he could build a loyal—and paying—following for the team by attempting to enhance the experience of being at the ballpark, whether the team won or lost, rather than by investing in good players and a good minor league farm system. In 1937, he installed the now-famous ivy on the outfield wall of Wrigley Field, the Cubs' home park (an idea lifted from Perry Field in Indianapolis). He also tried to plant trees along the back of the bleachers as well, but they were quickly killed by the vicious winds of Chicago. He notoriously refused to install lights in the park, emphasizing the putative health benefits of a day in the sunshine.⁷ So, partly because of Wrigley's failure to purchase or trade for players that would take the Cubs "all they way," the team faltered after 1935, finishing behind the National League champion New York Giants in both 1936 and 1937. Hiring Griffith was, of course, much less expensive than paying top-notch players, so the psychologist got his chance to show what he could do with a major league baseball club. Unfortunately for Griffith, Wrigley also had a reputation as a bit of a crank. For instance, in the early 1930s, he hired an "evil-eye" for as much as \$20,000 to attend Cubs games, putting the "whammy" on opposing teams (Veeck, 1962, pp. 40–46). This aspect of Wrigley's public persona may have partially undermined Griffith's work from the outset.

Nevertheless, Griffith went right to work, dubbing the project "Experimental Laboratories of the Chicago National League Ball Club" and ordering over \$1,500 worth of equipment. This included \$350 for a chronoscope and almost \$600 for a slow-motion movie setup. He hired an assistant, one John E. Sterrett (d. 1984), who had earned an MA from the University of Iowa Athletics Department in 1934, and they headed off to Catalina Island with the Cubs for spring training.

The clash of cultures between the baseball players and the university professor seems to have been almost immediate. Whatever success Griffith might have had with college football and basketball players—people who are accustomed to working in the context of scholarly research and to obeying the detailed plans of a coach who is often many years their senior—it was not to be repeated with the Cubs. Baseball was not, in those days, a sport played by college-educated men, in the main. Managers were often still players, not much older than those they

⁶ This was the series in which Babe Ruth is supposed to have made his famous "called shot" home run in Game 3 against Cubs' pitcher Bill Root. Root always denied it happened, saying that if Ruth had shown him up by pointing to the place on the outfield wall over which he intended to hit the ball, as he is said to have done, Root would have "knocked him on his fanny" (cited in Holtzman & Vass, 1997, p. 367).

⁷ According to Wrigley's biographer Paul Angle (1975, p. 63), then-Cubs Vice President Bill Veeck said that Wrigley was ready to install lights for the 1941 season. He had bought all the necessary towers, cables, fixtures, and so on, but when the Japanese attacked Pearl Harbor in December 1941, Wrigley donated all of the equipment to the war effort. After the war he never saw fit to purchase more.



Coleman R. Griffith at the University of Illinois (photograph courtesy of the University of Illinois at Urbana-Champaign Archives; Record Series 39/2/20).

managed. They had some authority, to be sure, but there were rarely complex game plans as there were in, say, football. Typically, each batter went up and did the best he could as an individual. Practices were relatively haphazard affairs: running, slapping a few slow pitches over the fence, catching a few fly balls, picking up some easy grounders. The use of carefully researched skill-development drills was almost unheard of, especially on the Cubs. In particular, the moody manager of the Cubs, Charlie Grimm, would have little to do with what he saw as the “headshrinker” (Angle, 1975, p. 65) from Urbana, his fancy equipment, and his high-falutin’ ideas about training. Grimm had been with the Cubs as a player since 1925 and had replaced future Hall of Famer Rogers Hornsby as manager in 1932. He had retired from playing after the 1936 season but stayed on as manager. He was known as “Jolly Cholly” for his good humor and his pranks around the clubhouse, but 1937 had been a stressful year for him. Cubs player Phil Cavarretta later recalled that Grimm had suffered a “burnout” in the second half of the season—“he seemed to be losing his drive as far as the game was concerned” (cited in Golenbock, 1996, p. 259). Indeed, Grimm’s disposition deteriorated to the point that the press was told he was ill, and catcher Gabby Hartnett stepped in as acting manager through the season’s end. Grimm returned to his managerial role in 1938, but he was no longer the “Jolly Cholly” of times past.

Griffith and Sterrett seem to have done the best they could given the circumstances, taking their measurements and shooting their films. Unfortunately, nei-

ther any of the raw data nor the films still exist. What remains, instead, is a set of 16 short reports that Griffith and Sterrett wrote over the course of the 1938 season (Griffith, 1938–1939), a 183-page “General Report,” reviewing the whole campaign, written by Griffith (1939a), and a set of detailed reports on the batting performance of nine players during the 1938 season (Griffith, 1939b). The General Report includes many excerpts from a series of no-longer-extant “confidential reports” that Sterrett wrote to Griffith during the year. In addition, there are 4 short reports by Griffith from the 1939 season (Griffith, 1938–1939) and 1 from the 1940 season (Griffith, 1940).

Griffith submitted his first report to Wrigley in March 1938. Entitled “The Psychological Point of View,” he asserted that “every human being . . . is a psychologist simply because [of] the adjustments he makes to other people and the adjustments they make to him” (Griffith, 1938–1939, Report No. 1, p. 3). Therefore, he continued, the baseball manager is a psychologist whether he knows it or not, because it is his job to “handle men,” as Griffith repeatedly phrased it. The players are psychologists too in that they must interact with the manager, the coaches, and each other as well. The only question, according to Griffith, is whether they use psychology effectively. A professional psychologist differs only in that he makes it his business to “know more about human nature than other people know” (Griffith, 1938–1939, Report No. 1, p. 4). By learning a thing or two from the psychologist about how to interact with others, the members of a team can come to work better as a unit. It is interesting to note how little this appeal had to do with the perceptual and psychomotor aspects of the game implied by his use of the chronoscope and movie equipment. Instead, it was about learning how to interact more effectively on a personal level.

Whatever Griffith’s motives may have been, his attempt to draw Grimm into the circle of “psychologists” apparently had no effect, except perhaps to make Grimm defensive. On April 26, Sterrett wrote Griffith,

I am convinced that Grimm is knocking our work as much as he can. Everything we say or do is reported to him and these are, in turn, passed on to the players. Grimm said to one of the players that he was afraid we might say or do something worthwhile and that if the players or the head office knew about it, it would put him in a bad light. (cited in Griffith, 1939a, p. 48)

Grimm had good reason to be worried. In addition to his personal difficulties, the Cubs got off to a terrible start in 1938, and there was talk of his being replaced by one of the players. Morale on the team was low, and factionalism was high as Hartnett, who had been an All-Star every year since 1933 and the National League’s Most Valuable Player in 1935, vied with two others to position himself to take over when Grimm’s fall finally came. During the first week of May, however, Wrigley surprised everyone by purchasing the popular pitcher Dizzy Dean from the St. Louis Cardinals. The team’s mood seems to have picked up dramatically. Most insiders knew that Dean’s pitching arm was shot by this time, but he brought a certain “star quality” to the Cubs that lifted spirits for awhile.

Griffith and Sterrett busied themselves during May writing four more reports on various aspects of the game. The first (Griffith, 1938–1939, Report No. 10) was about the difference between what Griffith called *physiological* and *practical* limits. The main ideas here were drawn almost directly from a passage in

Psychology and Athletics (Griffith, 1928, pp. 86–90). Contrary to what coaches often assume, he argued, players in the major leagues have not reached the performance limits of the bodies. They have reached only the limits allowed by the regimen of practice in which they are currently engaged. A better practice regimen would enable players to achieve better performance, closer to the actual physical limits of their bodies. Such an improved training regimen would have to be systematically researched, developed, and carried out. The tacit implication was, of course, that Griffith was the person to do this for the Cubs. All of this would have been music to the ears of the notoriously cheap Wrigley, who was reputed to hate having to pay any player more than \$10,000 per year.⁸ Griffith also recommended the use of charts, diagrams, and films to help the players measure their progress over time, a theme that would recur often in Griffith's reports.

In the second of the four May reports Griffith (1938–1939, Report No. 11) recommended ways to make morning practices more effective—improving skills rather than simply maintaining them. These included (a) gradually shortening the distance between batter and fielder when playing “pepper”⁹ in order to improve reaction times, (b) having batting practice organized around complete “at bats” in order to practice anticipating what the next pitch will be in various ball–strike counts, (c) having players run out hits during batting practice in order to automatize the action of getting “down the line” to first base, (d) practicing bunting more frequently, and (e) having pitching practice include a batter in order to make the situation more realistic.

In the third of the four May reports Griffith (1938–1939, Report No. 14) argued that slowly practicing the correct form of an action, such as swinging a bat, yields little benefit if, once learned, it is not afterward also practiced repeatedly at full speed. Finally, in the fourth May report, Griffith (1938–1939, Report No. 12) proposed the construction of an extensive series of “achievement tests” for measuring the speed, strength, coordination, accuracy, and “visual judgment” of players' basic skills. Griffith proposed that his test battery be used not only by scouts to help judge minor league talent but also at the major league level to track players' progress (or decline) and prescribe specific exercises to target precisely the skills most in need of improvement. In an additional mid-June report Griffith (1938–1939, Report No. 6) made recommendations for infield practice. It is interesting that he argued that fielding errors in games should be reduced not only because they damage the team's chances of the winning that particular game but also because such errors can damage the confidence of the player involved, “subconsciously” affecting the player's performance possibly for many days afterward.

Apparently none of this was implemented, and Griffith's frustration boiled over in a July 1st report on the spring training program, then more than 3 months

⁸ Records show (Pappas, 1995) that Wrigley had lowered even Grimm's and Hartnett's salaries from about \$20,000 in 1936 to about \$18,000 in 1937. All the other players made much less. No records exist for 1938.

⁹ There are many forms of “pepper.” All involve propelling the ball (whether by batting or throwing) at high speed over a short distance in order to test and train the “reflexes” of the receiver of the ball. The form mentioned here involved batting the ball at fielders at relatively close range. Griffith here proposed to turn this “warm-up” game into a skill-improvement drill.

past. He denounced the Catalina Island sessions for having been “aimless, disorganized, and unproductive.” They were aimless, he complained, because no initial measurements had been made of the players’ skills at batting, fielding, running, and so on, that could form the basis for individualized programs for improvement. They were disorganized, he continued, because there was no “definite plan of training [that] would work men gradually into physical and mental shape both in their habits and skills and in their attitudes, moods, and personal relations” (Griffith, 1938–1939, Report No. 2, p. 4). They were unproductive, he concluded, in that

the intent of the manager and most of the players was merely to regain or to recover about the same level of skill and judgment as had been attained during the previous season. . . but not . . . to acquire new skills nor to change the fundamental character of their older skills so that they would be more useful or more productive. (Griffith, 1938–1939, Report No. 2, p. 6)

In one of the very few actual measurements to appear in the entire set of reports, he claimed that only 47.8 min per day were spent on practice “effective for the playing of baseball” (Griffith, 1938–1939, Report No. 2, pp. 4–5). The rest (“2 hours, 47 minutes per man per day”) was time essentially wasted on diversions such as “pepper games, side line watching and coaching, running, and similar activities” (Griffith, 1938–1939, Report No. 2, p. 5). Again attempting to appeal to Wrigley’s business sense, he argued that “productivity” should be demanded in baseball like in any other business, such as the *gum business*, he pointedly noted. He made 16 recommendations for the 1939 spring training session, many of which used the phrase “the manager should. . .” Griffith’s criticism of Grimm was becoming sharper.

Through May and June, Sterrett’s disapproval of Grimm grew as well. On May 19, Sterrett wrote to Griffith,

Grimm is not using the right method with [backup catcher Ken] O’Dea. . . Grimm adds to [O’Dea’s] worries by yelling at him. . . This only increases O’Dea’s nervousness. A little confidence in O’Dea and a little gradual instruction. . . would be much more effective. (Griffith, 1939a, p. 48)

On May 23: “Our pre-game practice is pathetic. . . We are simply developing a lot of bad habits for which we may have to pay later in the season. Grimm does not understand his men” (Griffith, 1939a, p. 50). On June 14: “Charlie knows how to play the game and he would make a good manager if he would think more about the game and spend less time mooning about the defeats” (Griffith, 1939a, p. 51).

Grimm fought back. On June 21, Sterrett wrote to Griffith,

Grimm has not been convinced by any of our work and is doing his best to undermine it. The day after you showed [trainer] Andy [Lotshaw]¹⁰ how to massage [pitcher Dizzy] Dean’s arm, . . . I volunteered . . . some [additional] information. . . Later, Charlie yelled in to Andy in the club house in front of the whole team: “Say, how did that psychology assistant tell you to rub Dean’s Arm?” Then he put on a show of ridicule. (Griffith, 1939a, p. 53)

¹⁰ Andy Lotshaw served as head athletic trainer for the Cubs from 1922 to 1952. He also served as trainer to the National Football League’s Chicago Bears.

On June 26, Sterrett reported that Grimm would not let the players watch the films that had taken of their performances (Griffith, 1939a, pp. 56–57).

On July 10, Griffith filed two more reports with Wrigley, one on the improvement of pitching practice and one on ways to make the conditions that prevail during practices more similar to game conditions. The latter was particularly important, thought Griffith, to facilitating the transfer of skills taught in practice to real games. “A man’s frame of mind, his outlook, the way he feels,” Griffith wrote, “is a kind of foundation for his special [baseball] skills” (Griffith, 1938–1939, Report No. 3, p. 7).

One of the best attitudes for the actual playing of the game is expressed by the phrase, “the will to win.” This phrase means, of course, different things to different men, but each man can find out what it means for him. He should get hold of it, think about it, and adopt it as his very own. What is still more important,—he should make it a necessary feature of every practice period and of every game he plays. He must reduce it to a habit. (Griffith, 1938–1939, Report No. 3, p. 7)

Taking yet another swipe at Grimm, Griffith quipped,

Any manager who is any good at all will study situations of this sort. . . . Football coaches can sometimes create the will to win on the spur of the moment. . . . The better plan is to find an attitude during practice that can be carried over into the game. (Griffith, 1938–1939, Report No. 3, p. 8)

Griffith and Sterrett were not the only ones unhappy with Grimm, as it turned out. In mid-July, the Cubs were in 4th place in the National League standings. On 26 July, Grimm relinquished field management of the team to catcher and future Hall of Famer Gabby Hartnett. There was an immediate improvement, both in the team’s performance and in the players’ attitudes toward the researchers. Sterrett wrote to Griffith, “I thought I enjoyed the confidence of the players one hundred percent, but it was only one-tenth of what I am getting now. . . . None of the players wanted to be seen talking to me, if Grimm were around” (Griffith, 1939a, p. 58). On July 30, Sterrett reported that, unlike Grimm, Hartnett met with him nearly every day to discuss instruction of the players (Griffith, 1939a, p. 58). At this point, relations between the psychologists and the team seemed to be better than they had ever been. In mid-August, however, for reasons that remain obscure, Sterrett resigned from the project, leaving Griffith to complete the season alone.

Early in August, Griffith filed two more reports: one on how to improve the fielding practice game “pepper” and one entitled “Instinct in Baseball.” The latter is interesting for the strong behavioristic streak it shows that had not appeared in Griffith’s previous writings.¹¹ Because most players believe that skill is a matter of instinct rather than learning, he began, there is only a “small amount of teaching or learning in professional baseball” (Griffith, 1938–1939, Report No. 15, p. 1). He continued, however, that

the word “instinct” has almost gone out of use by those whose business it is to know such things, for the simple reason that it doesn’t mean anything. . . . instinct

¹¹ Compare, for instance, the tone here with Griffith’s less aggressive critique of instinct in *Psychology and Athletics* (1928, pp. 214–217).

is a name that is attached to a skill whose history is not known. (Griffith, 1938–1939, Report No. 15, pp. 3–4)

In Griffith's opinion, heredity gives only basic bodily equipment: two arms, two legs, and so on; all the rest is learning. However, this whole abstract treatise was aimed not at educating Wrigley and his staff about the theoretical sensibilities of modern psychology but rather at bolstering the simple conclusion that players should be systematically taught to play ball, even at the major league level. He concluded, driving the point home perhaps a little harshly, that "to appeal to instinct or to heredity is, therefore, a lazy, unimaginative and ignorant man's way of evading the demands of his job" (Griffith, 1938–1939, Report No. 15, p. 8). The man he had in mind, of course, was the baseball manager.

September saw three more reports: one on improving training setups, one on better batting practice, and one on revised scouting procedures based on tests and drills. For the Cubs, September saw a dramatic improvement in their performance. Near the end of a whole month of good play, on the evening of the 28th, with daylight fading at the end of a crucial game against the league-leading Pittsburgh Pirates, Hartnett hit the famous "Homer in the Gloamin'"¹² to win the game and propel the Cubs into 1st place with only a few days left in the season. They would go on to win the National League pennant, but they then faced the powerful New York Yankees—pennant winners in the American League—in the World Series. The Yankees' roster sported, among many All-Stars, five future Hall of Famers: Lou Gehrig (in his last full season), Bill Dickey, Joe DiMaggio, Lefty Gomez, and Red Ruffing. Not unexpectedly, the Yankees swept the Cubs in four straight games, just as they had back in 1932. Hartnett was a hero with the fans for having led the Cubs as far as he did, but on the train back from New York he reportedly undermined his position with his players by threatening to trade them all before the next season for having lost the championship.

Indeed, the enthusiasm that had initially surrounded Hartnett's appointment as manager had apparently begun to fade among the players even before his celebrated home run near the end of the regular season. Although a good player and colorful character, he was stubbornly traditional and could be vindictive with players who crossed him—not the sort manager with who was likely to implement the kinds of changes Griffith was proposing. In his year-end General Report to Wrigley, Griffith wrote of Hartnett that he "was not at all a smart man. . . . Not a teacher nor would he have the ability to adapt himself to any other style of training and coaching but that with which he had been familiar throughout his playing career" (Griffith, 1939a, pp. 90–91).¹³ Even if Wrigley had wanted to fire Hartnett, and there was some indication that he did (Vaughan, 1939), it would have been terribly unpopular with the fans to have done so at that time given the reversal of the Cubs' fortunes Hartnett had appeared to produce at mid-season and his personal heroics near the season's end.

In addition to the comments about Hartnett cited just above, Griffith's

¹² *Gloaming* is an archaic term for evening twilight.

¹³ The intelligence required of catchers had long been one of Griffith's concerns. The topic occupied one of the longest passages devoted solely to baseball in the whole of *Psychology and Athletics* (1928, pp. 72–76).

year-end General Report reviewed the season as a whole in detail, breaking it down into six distinct temporal periods and elaborating on many of the suggestions made in the earlier short reports. It summarized the performance of each player individually and made recommendations about whether each should be kept or traded. Among the plethora of “Special Problems” touched on were the influence of gossip on morale, the dynamics of cliques among players, the effect that the presence of the players’ wives at games had on the players’ performances, and how widespread belief in “baseball magic” undermined his own attempts to put the playing of the game on a more scientific footing. The General Report also made public relations recommendations, reporting on a survey of 300 fans conducted to discover their reasons for following baseball and attending Cubs games. Focusing on “deep” psychological aspects of the matter, Griffith began by explaining that

both men and women who, because of lack of time or lack of ability, cannot achieve success in their own work, will compensate for their failure or for their fatigue, by trying to associate themselves, either in direct friendship or in a remoter association, with someone who is successful. (Griffith, 1939a, p. 174)

He referred to this phenomenon as “identification.” Bringing this general analysis to bear on the matter of the Cubs’ success with fans, he reported that “about 72% [of the Cubs fans surveyed] frankly confessed the motive of identification as the basis of their own preference for the Cubs” (Griffith, 1939a, pp. 174–175).

It is often reported that Griffith’s project with the Cubs ended here,¹⁴ but this is not the case. In February and March of 1939, Griffith submitted reports on the batting performances of nine players.¹⁵ Three had played with the Cubs in 1938: first baseman–outfielder Phil Cavarretta, catcher Bob Garbark, and future Hall of Fame second baseman Billy Herman. Three had been acquired by the Cubs from other teams during the off-season: shortstop Dick Bartell, center fielder Hank Lieber, and catcher Gus Mancuso. Three had been released by the Cubs: outfielders Jim Asbell, Joe Marty, and Coaker Triplett. The level of detail presented

¹⁴ Wrigley’s biographer reported that the “crowning blow” came near the end of the 1938 season, when a game was played between a team of minor league players with whom the psychologists had been working throughout the summer and a team selected by the scouts. The scouts’ team is said to have “clobbered” the psychologists’ team. Bill Veeck is said to have reported that a number of the scouts’ choices made it into the high minors, whereas none of the psychologists’ choices did (Angle, 1975, p. 65). The story is repeated by Swoap (1998). It is possible that such a game took place, but I have been unable to confirm it. Griffith’s son does not recall there having been such a game. It is not even clear that Griffith and Sterrett worked with any minor leaguers during the summer of 1938. The Cubs apparently didn’t have a minor league farm team at the time, either (Angle, 1975, p. 68), so it is not clear where the players would have come from (although it is quite possible that players would have come from independent minor league teams in order to have a chance to play before the Cubs’ scouts). In any case, the game, if it was played, was not the “crowning blow” Angle thought, because Griffith continued to work for Wrigley, at least part time, through the next season.

¹⁵ As far as I can tell, these reports have never before been included in research into Griffith’s work with the Cubs, which has relied mainly on the collection deposited at the University of Illinois archives by Griffith’s son. These reports, however, reside at the baseball Hall of Fame Library, where they are part of a 1967 donation made by a former Cubs executive named James Gallagher.

in these reports, which totaled more than 200 typed pages, was extraordinary. Here is an example:

During the 1938 season Cavarretta faced [New York Giants pitcher Harry] Gumbert 15 times in six games. Gumbert delivered 23 pitches to the strike area, 27 to the ball area, for an average of 3.3 pitches per time at bat. Thirty four of the pitches were fast, 16 were curves, and there were no slow balls.

. . .Gumbert work[ed] Cavarretta around most of the pitching area. In the strike area low and inside Cavarretta hit two curves and a fast pitch for outs, hit a fast pitch for a safe hit, and let four fast pitches go for called strikes. In the ball area of this section he hit a fast pitch for a hit. He was hit by a curve ball and took seven other pitches for called balls. In the strike area low and outside. . .

And so it continues, for each of the nine batters, combined with every pitcher each of them faced during the entire season.

It is interesting to note, at this point, a case that constitutes an obvious failure of Griffith's analysis of players. In a number of places, including in the player reports described immediately above, Griffith concluded that Phil Cavarretta was a player without very much potential of whom the Cubs might do well to rid themselves.¹⁶ Contrary to Griffith's prediction, however, Cavarretta would soon become a fixture on the Cubs for another 15 years, serving as a starting first baseman and outfielder through the 1940s. He was a National League All Star every year from 1944 to 1947 and the National League's Most Valuable Player in 1945. He would later go on to manage the Cubs from 1951 to 1953. Thus, despite what Griffith claimed to be his chief area of expertise, it appears he was neither able to detect Cavarretta's underlying talent nor bring that potential to fruition through his various drills and training regimens.

In any case, Wrigley was sufficiently impressed with the 1938 project that he offered Griffith a full-time position for the 1939 season, but Griffith refused it in order not to have to move his family to Chicago (W. C. Griffith, personal communication, December 28, 2001). He stayed on part time with the Cubs, however. Some of the players seem to have come to appreciate Griffith's efforts as well. Pitcher Bill Lee, for instance, who led the National League in both wins (22) and earned run average (2.66) in 1938, bought Griffith a new set of golf clubs as thanks for the work he and Sterrett had done with Lee using the films they had shot of his pitching motion (W. C. Griffith, personal communication, December 28, 2001).

As the 1939 season began, it soon became clear that the Cubs were not up for a repeat of their 1938 performance. They quickly settled into the middle of the pack in the standings and stayed there all season, finishing 4th. Tensions on the team began to build as Hartnett, not being able to stop the slide, began berating and punishing his players. One Chicago newspaper declared him winner of the

¹⁶ Cavarretta came to the Cubs in 1934 and served as their starting first baseman in 1935 and 1936. Grimm, who had been the previous first baseman, did not like him, and acquired Ripper Collins from the St. Louis Cardinals to replace him for the 1937 season. Cavarretta's batting suffered badly during 1938, his second season playing "off the bench," and it seemed to some—including Griffith, apparently—as though his career in the major leagues might already be winding down. Cavarretta is the only member the 1938 Cubs who is still alive. I made attempts to contact him by letter during the course of this research but received no reply.

“Drizzlelep Derby” for the grumpiest manager in baseball (Holtzman & Vass, 1997, p. 60). The players were down on him as well. Shortstop Dick Bartell, who had been acquired from the New York Giants during the off season, later confided: “I came to Chicago respecting [Hartnett] as a player. But I lost respect for him as a manager. To put it plainly, he couldn’t manage my Aunt Kate. He was very difficult to get along with” (cited in Golenbock, 1996, p. 276).

Griffith wrote four short reports during the 1939 season. His relationship with Hartnett deteriorated to the point that in June he wrote, “as far as the team and its management is concerned, we have met not only with failure but with a large amount of suspicion and distrust” (Griffith, 1938–1939, Report No. 17, p. 3). He proposed a “psychological clinic”—a weeklong retreat with the managers, coaches, and senior players at which he could hold forth on his ideas about the “psychological point of view.” It appears to have come to nothing, but later¹⁷ he submitted a report entitled “Basic Factors in Handling Men” that might have served as the starting point for the kind of session he had in mind (Griffith, 1938–1939, Report No. 18). It was likely with Hartnett in mind that Griffith wrote,

it is required of the manager that he shall know his men so well that he knows what they can and cannot do, so that they will never be asked for a performance which lies too far beyond their ability to achieve. (Griffith, 1938–1939, Report No. 18, p. 5)

In the first of two August reports he became blunter still: “The center of the whole problem is Hartnett. . . . Hartnett is a man who must satisfy his ego at all costs” (Griffith, 1938–1939, Report No. 19, p. 26). Finally, in the last report of 1939, pointedly entitled “Some Qualifications of a Baseball Manager,” Griffith began by distinguishing between managers who are “users of men” and those who are “makers of men.” After waxing poetic about the qualities of the “good manager” for some 13 pages it was clear, if only implicitly, that Hartnett was not among those he believed to have such qualities.

Despite Griffith’s complaints, and despite the Cubs having finished out of the running in 1939, Hartnett stayed on as manager for 1940. Griffith had not quite finished his stint with the Cubs either. In August 1940 he wrote one last report. In tone it was quite unlike the previous ones. Rather than advocating the “psychological point of view,” it was full of straight baseball advice—some of it harsh. Among other things, he recommended that Wrigley cut the players’ salaries and make them dependent on performance because, he said, when men have high salaries they have little more to work for and become complacent. Although Griffith flattered Wrigley by telling him that he paid among the highest salaries in baseball, Wrigley was in fact widely known to be stingy. For instance, to save money Wrigley would often not replace injured players—the team would simply have to play shorthanded until the injured players recovered. Many saw this as one reason for the Cubs’ poor performance in 1940, during which outfielder Augie Galan, pitchers Dizzy Dean and Clay Bryant, and three different first basemen (Rip Russell, Phil Cavarretta, and Zeke Bonura) all went down with long-term

¹⁷ The table of contents says June 10, but the report itself says July 10.

injuries. Griffith, however, dismissed this explanation as an “alibi.” Instead, he contended that several of the players were lazy and not properly conditioned. Finally, he devoted an entire section of the report specifically to Hartnett, denouncing what he called “his grandstanding, his super-egotism, and his stupidity” (Griffith, 1940, p. 8). He also plainly called Hartnett “a bad manager” (Griffith 1940, p. 10). With that, Griffith’s interaction with the Cubs came to an end. Cubs Vice President Bill Veeck is reported to have jokingly said about the project as whole, “we didn’t find out too much about what goes into the five or ten per cent of boys who can make the major leagues, but we did find out what goes into the 90 or 95 per cent who cannot” (cited in “Progressive Phil. . .,” 1961).¹⁸

The Cubs finished in 5th place in 1940, playing sub-.500 ball for the first time since 1925. Hartnett was replaced at season’s end. After 3 more years of losing baseball, Wrigley once again turned to Charlie Grimm¹⁹ to manage the Cubs just 11 games into the 1944 season. The team rose above .500 again under Grimm’s leadership, and they went to World Series again the following year (1945), where they lost to the Detroit Tigers, 4 games to 3. After that, the Cubs slid into baseball mediocrity for decades, never finishing above 5th between 1947 and 1966 and not making it into postseason play again until 1984.

Griffith After the Cubs

Griffith never conducted serious research on the psychology of sport again. He was promoted to provost at University of Illinois in 1944, a post he held until 1953. His son has reported that he was forced out of the position in a controversy involving an Illinois physiology professor, Andrew Ivy, who claimed to have discovered a “miracle cure” for cancer called “krebiozen”²⁰ (Gould & Pick, 1995, p. 401). Economic historians Winton Solberg and Robert Tomlinson (1997), however, painted a somewhat darker picture. According to them, Griffith, as provost, became entangled in a controversy over the 1950 appointment of a new dean of commerce in which the McCarthyism of the day played a significant role. Griffith soon went on, however, to head the National Education Association’s Office of Statistical Information. In 1962 he retired from the Illinois faculty and took on a position in the Oregon State System of Higher Education. He passed away in 1966.

Coleman R. Griffith appears to have been the first professional psychologist to have been employed long term by a major league sports franchise. Although he met with more than a little resistance, and few of his recommendations were implemented, he broke new ground that would later grow into a whole industry.

¹⁸ Furlong (1969, p. 29) reported essentially the same comment, although he changed the “five or ten per cent” to “1 per cent” and the “90 or 95 per cent” to “99 per cent.”

¹⁹ Grimm had retreated to a front office position with the Cubs after turning the reigns over to Hartnett in 1938. During 1939–1940, he was a radio announcer for Cubs games. At the start of the 1941 season he returned to the field as a coach but was soon lured away to manage Bill Veeck’s minor league Milwaukee Brewers, which he did until being invited back by Wrigley to manage the Cubs again in 1944.

²⁰ For more information on krebiozen, see the American Cancer Society’s Web page about it at http://www.cancer.org/docroot/ETO/content/ETO_5_3X_Krebiozen.asp. It is obvious that it did not turn out to be the all-natural miracle cure it was purported to be.

Ten years later, in an admittedly somewhat different vein, New York psychologist and hypnotist David F. Tracy would be hired to help the St. Louis Browns (Tracy, 1951). In the 1950s, baseball scout Jim McLaughlin began bringing to player recruitment the kind of “scientific attitude” that Griffith had promoted in the 1930s (Kerrane, 1984, chap. 7). In the 1960s, the Philadelphia Phillies teamed up with some University of Delaware professors to found a “Research Program for Baseball” (Kerrane, 1984, p. 153). In the 1970s, the Kansas City Royals created a science-based “academy” of baseball development. By the 1980s, tests such as the Athletic Motivation Inventory (Tutko, Lyon, & Ogilvie, 1969) were becoming a standard tool of professional baseball scouts and managers. Also in the 1980s, then-Chicago White Sox and Oakland A’s manager Tony LaRussa brought the laptop computer and the digital database into the dugout to stay. So, although it seems that Griffith personally “struck out” with the Cubs, one might say that the “batting form” he pioneered was later developed by others, and its descendents today are a standard practice in professional baseball and in other sports.

References

- Angle, P. M. (1975). *Philip K. Wrigley: A memoir of a modest man*. Chicago: Rand McNally.
- Bäumler, G. (1997). Sports psychology. In W. G. Bringmann, H. E. Lück, R. Miller, & C. E. Early (Eds.), *A pictorial history of psychology* (pp. 485–489). Carol Stream, IL: Quintessence.
- Benjamin, L. T. (1993). *A history of psychology in letters*. Boston: McGraw-Hill.
- Chewing gum is a war material. (1943, January). *Fortune*, 27, 98–100, 122, 124, 126, 130, 136.
- Furlong, W. B. (1969, October 12). P. K. *Chicago Tribune Magazine*, pp. 26–31.
- Golenbock, P. (1996). *Wrigleyville: A magical history tour of the Chicago Cubs*. New York: St. Martin’s Press.
- Gould, D., & Pick, S. (1995). Sport psychology: The Griffith era, 1920–1940. *The Sport Psychologist*, 9, 391–405.
- Griffith, C. R. (1920). The organic and mental effects of repeated bodily rotation. *Journal of Experimental Psychology*, 3, 15–46, 89–125.
- Griffith, C. R. (1922). *An historical survey of vestibular equilibration*. Urbana: University of Illinois Press.
- Griffith, C. R. (1923). *General introduction to psychology*. New York: Macmillan.
- Griffith, C. R. (1925). Psychology and its relation to athletic competition. *American Physical Education Review*, 30, 193–199.
- Griffith, C. R. (1926). *The psychology of coaching: A study of coaching methods from the point of psychology*. New York: Scribner’s.
- Griffith, C. R. (1928). *Psychology and athletics: A general survey for athletes and coaches*. New York: Scribner’s.
- Griffith, C. R. (1930). A laboratory for research in athletics. *Research Quarterly*, 1, 34–40.
- Griffith, C. R. (1934). *Introduction to applied psychology*. New York: Macmillan.
- Griffith, C. R. (1935). *Introduction to educational psychology*. New York: Farrar & Reinhart.
- Griffith, C. R. (1938–1939). *Reports: Experimental laboratories. Chicago National League Ball Club* (20 reports). Unpublished manuscript, Coleman Griffith Papers, Box 13, Archives of the University of Illinois at Urbana–Champaign.
- Griffith, C. R. (1939a). *General report: Experimental laboratories. Chicago National*

- League Ball Club. Jan 1, 1938–Jan 1, 1939.* Unpublished manuscript, Coleman Griffith Papers, Box 13, Archives of the University of Illinois at Urbana–Champaign.
- Griffith, C. R. (1939b). *Player reports.* Unpublished manuscript, Chicago National League Ball Club Experimental Laboratories, Box 1, Folders 2–17, National Baseball Hall of Fame Library, Cooperstown, NY.
- Griffith, C. R. (1940). *General progress of the club.* Unpublished manuscript, Coleman Griffith Papers, Box 13, Archives of the University of Illinois at Urbana–Champaign.
- Hollingworth, H. L. (1939). The psychodynamics of chewing [Monograph]. *Archives of Psychology*, 239.
- Holtzman, J., & Vass, G. (1997). *The Chicago Cubs encyclopedia.* Philadelphia: Temple University Press.
- Kerrane, K. (1984). *Dollar sign on the muscle: The world of baseball scouting.* New York: Simon & Schuster.
- Kroll, W. (1971). *Perspectives in physical education.* New York: Academic Press.
- Kroll, W., & Lewis, G. (1978). America's first sport psychologist. In W. F. Straub (Ed.), *Sport psychology: An analysis of athlete behavior* (pp. 16–19). Ithaca, NY: Movement. (Original work published 1970)
- Pappas, D. (1995). Salary highlights from the thirties. *Outside the lines.* Retrieved June 9, 2003, from <http://roadsidepressphotos.com/baseball/1930SSALS.htm>
- Progressive Phil hired prof to measure skill of players. (1961, October 4). *The Sporting News*, p. 16.
- Singer, R. N. (1989). Applied sport psychology in the United States. *Journal of Applied Sport Psychology*, 1, 61–80.
- Solberg, W. U., & Tomlinson, R. W. (1997). Academic McCarthyism and Keynesian economics: The Bowen controversy at the University of Illinois. *History of Political Economy*, 29, 55–81.
- Swoap, R. A. (1998). *Coleman Griffith's kick-off of applied sport psychology in America.* Paper presented at the 106th Annual Convention of the American Psychological Association, San Francisco.
- Swoap, R. A. (2000). A history of Division 47: Exercise and sport psychology. In D. A. Dewsbury (Ed.), *Unification through division: Histories of the divisions of the APA* (Vol. 4, pp. 151–173). Washington, DC: American Psychological Association.
- Tracy, D. F. (1951). *The psychologist at bat.* New York: Sterling.
- Tutko, T. A., Lyon, L. P., & Ogilvie, B. C. (1969). *Athletic Motivation Inventory.* San Jose, CA: Institute for the Study of Athletic Motivation.
- Vaughan, I. (1939, October 12). Wrigley displeased; may oust Hartnett. *Chicago Daily Tribune*, p. 31.
- Veeck, B. (1962). *Veeck as in wreck.* Chicago: University of Chicago Press.

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