

this way and the consequences this time simply did not occur to him. (There are safe ways to haul light loads, using yourself as a counterbalance.) He also did not have a chest harness, prusik slings, or other gear that would have made a self-rescue easier, and he did not think to tie three-wrap prusiks or other ascender hitches, when his two-wrap prusiks slipped.

There is another factor, however. Everyone at the scene said Jeff reeked of alcohol—Scott smelled it from at least 10 feet away as he climbed the rope. Jeff was belligerent with rescuers and medics. He claimed that he had had only one drink—vodka—that morning, and insisted that he was dead sober on the wall. No legal action was taken against him.

Regardless of his state of sobriety, Jeff came close to dying in several ways, and getting him to safety put Scott at more than normal risk when he relied on Jeff's rigging. (Source: John Dill, NPS Ranger, Yosemite National Park)
(Editor's Note: We are reminded of the famous Buster Keaton comedy routine involving a pulley, rope, and wooden bucket of bricks...)

FALL ON ROCK, PLACED INADEQUATE PROTECTION

California, Mount Whitney

On May 15, Graeme Taylor (39) and Keith Reid (37), both experienced climbers, were in the Giant Staircase of the East Face route on Mt. Whitney. Graeme was about 40 feet out on lead when a snow mushroom he was standing on collapsed. Graeme fell 40 feet to one of the stairs. He briefly lost consciousness and suffered injuries so that he was unable to climb further. Keith placed him in a bivy sack, tied him in, and solo climbed to the top. He descended via the trail and notified the Kern County Sheriff.

Analysis

Place pro even when your skill level might not require it, especially in questionable terrain. Err on the side of caution when on mixed terrain. Both climbers were wearing helmets. Graeme's helmet was severely damaged in the fall, but it probably saved his life. (Source: Werner Hueber, China Lake Mountain Rescue Group)

(Editor's Note: There was one other incident reported from Mount Whitney. A 64-year-old man lost control when glissading, resulting in a fractured fibula. Though he had 48 years of experience, he still chose to wear crampons, and when he hit a hard patch of snow, his right crampon caught.)

FALL ON ROCK, INADEQUATE BELAY, POOR COMMUNICATION

California, Yosemite Valley, Lower Yosemite Falls

On June 24, Raj Dhingra (39), my brother Hugh (34), and I—Dan Sakols (37)—decided to tackle Commitment (three pitches, 5.9), one of the “Five Open Books” west of Lower Yosemite Falls. We got an early start to avoid the crowd and finished the first two pitches, both 5.8, with no complications.

Hugh led the third pitch, which starts with 5.9 moves around the right side of a big roof, then finishes up a right-facing 5.8 corner. After Hugh climbed out of sight at the top it was impossible to communicate, even by shouting.

There were light tugs on the rope, but we had not prearranged a signal, so I was not sure if he was still setting up the anchor or wanted me to climb. Raj and I waited for 10 minutes as another party came up behind us, then I got some solid tugs in response to mine, and I was comfortable starting up.

It was nearly midday now and the sun was hot. My pack—with water and descent shoes—was heavy, and the roof moves were hard, so I was tired by the time I finished the pitch. When I got to the top and it was my turn to belay, I looked for a way to make communications a little easier for Raj.

Hugh had anchored to the nearest live oak, about 20 feet up and left of the top of the corner, and had sat next to it to belay me. Being so far back from the edge of the cliff had caused the communication problem, so I decided to stand near the edge, on a slab just right of the corner, where I could see down the pitch and talk to Raj.

I was perhaps five feet right of the vertical fall-line to Raj (as viewed facing the cliff). My anchor, Hugh's tree, was about 25 feet behind me, a little uphill, and to the left of the fall-line. I faced out to look down at Raj. My anchor line was tied to the front of my harness and went around my right side to the anchor tree. I belayed with an ATC, also clipped to the front of my harness. I leaned out a bit to pretension the anchor line. Everything seemed solid, so I yelled down to Raj that he could climb.

Raj fell as he was doing the roof moves, and I discovered instantly that I was unprepared for the magnitude and direction of the force. Although I saw it all in slow motion, everything happened rapidly and simultaneously. The downward force in Raj's belay line buckled my legs. It also "unwrapped" me from the anchor line, torquing me clockwise and destroying any stability that remained. Stretch in the long anchor line sent me over the side. Finally, because I was to the right of the imaginary line between Raj and the anchor, I shot to the left. The net result: I tumbled down and left five or six feet onto a third-class ramp at the top of the climb.

From the first moment, I knew I couldn't stop my fall; but I also knew I was anchored and therefore safe, so I just went with it. I remember thinking that Raj's safety depended on my maintaining his belay; nothing else mattered—I would be OK, but I had to concentrate on that grip. However, as I tumbled across the face and began crashing into rocks and branches, I must have become disoriented—it is all blurry now, but I probably put my hands out in a reflex to protect myself and dropped the rope.

The next thing I knew, I was hanging there a little banged up and I heard the whizzing sound of the rope racing through the ATC. That sound still echoes in my head today. I remember thinking, "If I don't do something now, Raj is going to die." I imagined the end of the rope going through the ATC and Raj sailing through the air, although, in fact, the end of his rope was tied to me.

I instinctively grabbed the rope going into and coming out of the ATC with my bare hands and simultaneously tried to wrap it around my leg. That didn't do much to slow Raj down. A few seconds later—also missing from my mind—I noticed that it was quiet and that the rope had stopped. I wondered, "What stopped it? Me, or Raj hitting something?" Finally I realized that the belay

rope was taut and my belay hand was holding it in the arrest position, so I must have made the right moves. I had no idea how long this took or how I did it, but it seemed more practiced reflex than conscious act.

I could see that my hands were shredded, and I was also scared, wondering if my friend had died. I called to Hugh, "Where's Raj, where's Raj?" Finally, I heard Raj's voice nearly a pitch below calling, "Is everything OK?" I looked down at my belay hand, still holding his rope, with blood oozing and chunks of torn skin hanging, and I could not answer him because I did not know. I just sat there, bleeding and holding the rope, for what seemed like 15 minutes.

Meanwhile, Hugh was not sure what had happened. He thought there might have been a problem with the anchor, so he wrapped my line around the tree and was hesitant to let go of it until he knew what was going on. I had not been much help in enlightening him to this point.

Then I saw a guy looking down at me, asking if we needed some help. He was a guide from the Yosemite Mountaineering School and had just finished a nearby route. He was able to scramble down to me, tie off Raj's line with Prusiks, and get me out of the belay, although I do not remember much of it. With a little help I was able to get up to the anchor using my legs and elbows while Hugh belayed me.

I saw that my right hand was covered with giant, fluid-filled blisters, and my left, the belay hand, had much of the skin torn off, with bits hanging loose everywhere. Then came the pain of deep burns. The guide wrapped my hands. An Austrian couple who came by put my hiking boots on, helped me hike down to the car, and drove me to the Yosemite clinic while Hugh and the guide belayed Raj up the pitch.

Later, I found out that Raj had slid 60 or 70 feet by the time I stopped him, and that I probably had 20 feet of rope left. Somehow he managed to stay upright and avoid injury. I am amazed he did not bang into something and at least break his ankle, and I can not imagine what he was thinking. He said later that he did not know if he was going to fall again, so he was trying to find some footholds. He even thought it was a pretty good climb.

The skin on my left hand, where I had gripped the rope, had been completely abraded to the underlying tissue. I needed a few doses of morphine before I felt relief from the pain and the clinic staff could clean up the mess. Once back home, I was amazed to find that my hand was able to heal by itself, without the need for plastic surgery; however, it did require several months of physical therapy to be able to open fully. My harness died in the line of duty. The rope had melted halfway through a leg loop, welding the leg loop to my shorts and burning my leg underneath. (Source: Dan Sokols)

Analysis

Dan deserves lots of credit for stopping Raj under the circumstances, but he could have broken his hand or his skull in the tumble and then been unable to recover Raj's belay.

Some suggestions for stabilizing the belayer. First, avoid taking the force of even a simple top-rope fall directly downward on your harness and legs. The peak force can exceed twice the climber's weight. If there is no other choice, at

least belay sitting down. Alternatively, run the line from the climber through a high directional (in some cases, the anchor), so that the force on you is upward (as when belaying a top-roper from below). The harness will be stressed properly, and your own weight, plus friction at the directional, will help counter the force. (Do not forget the strength requirements of the directional.)

Next, if you are not in line with the anchor and the climber, consider these options: a) relocate the anchor, b) build a secondary, directional anchor to oppose the sideways force, or c) establish a directional on the belay line below you to align it with the anchor line. A third point: If stretch in a long anchor line will be a problem, minimize it by distributing the force among two or more strands of rope. Fourth, as in Dan's party of three, let Hugh belay from the original anchor while Dan stands at the edge as a voice relay. (A full discussion of belay forces and solutions requires a textbook.)

Finally, do you and your partners know how to recover from an accident like this? (Source: John Dill, NPS Ranger, Yosemite National Park)

LIGHTNING—POOR POSITION, FAILURE TO TURN BACK, INADEQUATE CLOTHING AND EQUIPMENT

California, Yosemite National Park, Cathedral Peak

On June 25, my brother Andrew Betts (24) and I, Brad Betts (28), along with our friend Richard Meade (26), set out to climb the six-pitch, 5.6 Southeast Buttress of Cathedral Peak (10,940 feet). None of us had done the climb before, and it would be my first significant multi-pitch climb.

We drove up from the Bay Area the night before and camped west of the park, about 50 miles from the trailhead. We had planned to hike the three miles to the base of the route by 8:00 a.m. and be off the summit by 1:00 p.m., to avoid afternoon thunderstorms. However, we awoke at 4:00 a.m., to find that someone—not a bear—had stolen our food, and dealing with that put us two hours behind schedule.

We checked the weather board at the park entrance, but we were too early for the current forecast and the station was still closed. The old forecast called for thunderstorms yesterday but sunny weather today. That was good enough for us, and there was not a cloud in the sky as we started up the climb at 10:00 a.m.

By the end of the second pitch, small, white, puffy clouds were visible in the eastern sky, and by the end of the third pitch, with three more to go, we could see distant rain. Feeling that we were outrunning the storm and knowing that we could quickly descend the backside of the peak, we made a group decision to press on for the top instead of rappelling off. (Andrew was concerned about the ropes hanging up if we retreated, and he later admitted that he was hesitant to leave behind the gear required for safe rappel anchors.)

We raced up the fourth and fifth pitches, hoping to avoid climbing on wet rock, but rain and hail caught us on the sixth—and final—pitch. While I waited to follow Andrew, the hair on the back of my hand stood on end at least twice. It did not take a genius to know that lightning might be close behind, but we were committed to getting up and off by that point.

The wind and rain made communicating with Andrew very difficult. When