Principles of Joint Locking

Most of the time, when we've done joint locks in class, we've focused on technique. It's very good to learn techniques, because the study of joint locks necessarily involves basic techniques and variations on those techniques. However, in order to use joint locks effectively in a combat situation when you and an attacker are both adrenalinized, it's just as important to understand the principles behind the techniques.

Sgt. Rory Miller is a corrections officer with a fighting systems background in Judo, Karate, fencing, Tae Kwon Do, and Sosuishitsu-Ryu Jujitsu. He has tested his dojo experience in the violent context of the prison yard, and as a result is probably one of the better authors on the subject of facing violence realistically. He is the author of multiple books and videos.

His video, Joint Locks, approaches joint locking from a principle base rather than a technique base. His contention, which makes perfect sense, is that understanding the fundamental principles behind the locks enables one to better see and exploit opportunities to use them in a violent situation.

We looked at some of these concepts in class on July 29th. For those who are interested, here is a summary of Sgt. Miller's foundational principles in understanding how to lock up a particular joint:

For the purposes of joint locking, there are three kinds of joints:

i) **Hinge**—Elbows, knees, last two joints of fingers. Simply put pressure on the extremities to bend them the wrong way. An example would be an arm bar, where opposing pressure is exerted on the elbow joint by pulling back on the arm and pushing down just above the elbow.

ii) **Ball & Socket**—Shoulders, hips, base knuckle of the fingers. You can't do much with the hips, although there are techniques, such as the crab lock, that place a lot of force on the hips if you can get the attacker in a position that allows you to execute the lock. That leaves the shoulders and the base of the fingers. With shoulders, either bend the arm 90 degrees for maximum leverage & rotate like a faucet, or straighten the arm and rotate, again like a faucet.

iii) **Gliding**—Wrist, neck, ankles. With this kind of joint, you twist until the ligaments and tendons tighten or snap, which can lead to bone breakage.

Sgt. Miller goes on to cite the following concepts to make locks against joints work well:

i) **Maximize leverage**—This means, for example, grasping the wrist rather than the forearm when doing an arm bar, because the longer the lever, the more the leverage. It also means proper placement of your opposing forces. For instance, a figure-four standing arm bar is useless unless the placement of your forearm under the elbow is precise; otherwise, you lessen the leverage and the attacker can pull right out of the lock.
ii) **Two-way action**—This is the concept of "opposing forces." For a lock to work, I have to put pressure on the appendage in one direction and at the same time, force the weak point of the joint back in the other direction. In a finger lock, for example, I not only must bend the finger back, but I have to use my pinkie or thumb as a fulcrum as I force the hand forward simultaneously.

iii) **Use gravity**—Although this seems self-explanatory, Sgt. Miller means by this using your center mass. I illustrated this concept by having some students pick up a kettlebell at their feet, and then having them try to pick it up while it was about two feet forward of them. Obviously, you are stronger when you pick up the kettlebell when it is close. The same applies to joint locks. If you try to employ a joint lock at arm's length, your weight and primary core strength is unavailable to you, and you won't be able to effectively use gravity to take someone down.

iv) **Basing**—This means simply using leverage wisely. If you want to move a large rock with a stick, you don't just push it with the stick. Rather, you jam the stick under the edge of the rock, and create a lever by basing the stick on a fulcrum, isolating the movement. The same goes for joint locks. I can increase the pain in a finger lock by placing the attacker's wrist against my hip, the ground or a wall. A straight-armed shoulder lock is ten times more effective on the ground than standing, simply because basing it on the ground eliminates wiggle room and allows you to more easily use the concept of opposing forces.

v) **Stacking**—This refers to using more than one lock at a time, or using locks with strikes or locks with throws. Another way to look at this is to posit that locks are not ends in themselves, but means to an end. The end might be to move someone away from a scene, to break a bone to render the attacker incapable of continuing an attack, to distract with pain while you set up a takedown, or to render someone vulnerable to a particular strike. Thus, with a hammerlock, you might want to also add finger locks or a neck lock to make it more inescapable; or you could strike someone, put on an elbow arm bar, elbow strike him in the temple, and then sweep him backwards over your leg.

vi) **Gifts**—We need to try to have a different perspective when someone grabs us. Rather than think of it as a problem, think of it as a gift. This is where familiarity with both principles and techniques is important. If you know only principles, it may be hard to do something with the "gift." However, if you know some viable techniques and can combine them with fundamental principles of joint locking, you should be able to counter any grab.

Sgt. Miller makes the point that joint locks are partly psychological. They work based on pain and a typical person's reaction to pain. This is overly simplified, because they also work because they can be used to compromise a person's balance, or transition to a throw or takedown, but without that psychological edge, you lose much of the effectiveness. Thus, it's imperative that you use them quickly, before someone has a chance to react to them, that you couple them with other techniques (stacking), and that you transition to something else if they aren't working. If you are trying to subdue someone with a joint lock, and he doesn't seem to
be affected by it, you'd better strike him, go into another joint lock, or take him down, otherwise you might end up swallowing your own teeth.

Karate has always had a joint-locking component. However, unlike Jujitsu, Aikido or Hapkido, joint locks are not studied exhaustively in the striking arts. If you are truly interested in learning the art of joint locking in-depth, I would suggest delving into one of those arts. There are probably thousands of locks and variations of locks, and the subtleties involved in doing them with maximum effectiveness can only be learned through long years of hard work. The pain differential between and average martial artist doing a joint lock and a longtime jujitsu practitioner doing the same lock is like the difference between a static electricity shock and electrocution. For karatekas, joint locks are generally thought of as lesser weapons in a larger arsenal. However, if the time is taken to learn them well, they can be of far greater use than one might think.

When I was first studying karate, I was working at a homeless service center. Violence was an everyday occurrence. In my karate "toolbox" at the time, I only had upper body strikes, kicks and blocks as protection. In that particular context, these were almost useless. To strike a violent client would have probably resulted the loss of my job and a possible lawsuit for the agency. When I later learned a handful of joint locks, I was able to effectively intervene in fights and subdue enraged people fairly easily.

Another story illustrates the same point. One of our former students, a police officer, earned his brown belt at a time when we were teaching several joint locks. One day, he was called to assist another officer. When he arrived, he was faced with a volatile situation. A hostile crowd had gathered around an officer who was trying to arrest a resisting suspect. Our student took over, and immediately put the suspect into an elbow arm bar. He exerted some pressure on the elbow, and the suspect exclaimed, "Hey, you're breakin' my arm!" Our student calmly said, "Well, then stop resisting." The suspect instantly calmed down and allowed himself to be handcuffed and taken into the patrol car. The crowd, disappointed that they didn't see any "police brutality," grew quickly bored and dispersed. Our student later said that even though striking the suspect would have been justifiable, it would have resulted in a possible riot, or at least a news story reflecting badly on the police department.

If for no other reason, the above two accounts illustrate why you should take joint locks seriously. In a life-or-death situation, karate strikes and kicks might be the best weapons. However, there are many other life situations, such as what I just described, in which kicks and punches are inappropriate, and where control, rather than injury, is the goal. Joint locks give you the option of doing injury if necessary, but their main function is control. You don't have the option of not doing injury with a kick to the groin or a palm strike to the nose; it's kind of an all-or-nothing affair. If it doesn't injure the attacker, he will continue attacking, whereas a controlling hold will often stop an attack without the legal ramifications or P. R. headaches of a strike or kick.