THE CASTING CLINIC With Al Kyte

ARM STYLES

Experienced fly fishers differ from one another in how they cast. They stand, hold the rod, and move their bodies in different ways, yet differ most noticeably in how they move their casting arm. In beginning fly-casting classes, students typically learn a certain arm movement--the one taught by the instructor. Yet students soon begin to differ in such things as how far they move the hand, where they position it, and how firm they keep the wrist. Some of these adaptations interfere with their casting success and require correction. However, other adaptations work well illustrating what; movement analysts call "self-optimization" a student's discovery of a more natural or comfort-able way to cast.

In observing expert casters, I have been surprised by how many different ways people, can vary the hand and arm movements of the east. As a first step in analyzing such differences, I have lumped them into three general styles, recognized by how the elbow is positioned at the start of the forward cast-forward, up to the side, or low. These positions set the stage for movement differences that have more to do with the shoulder than the elbow. The elbow is a simple hinge that can only open (extend) or close (flex). The shoulder, however, is a ball-and-socket joint that allows the arm to apply force in a variety of ways. This is where most arm variation occurs.

Understanding various types of arm movement allows you to view *your own* casting stroke in relation to several existing styles. You may even try to imitate movement styles other than your own to see if *one* of them feels more comfortable.



Elbow Forward

il start a beginning class with what I call the "elbow-forward" style. At the start of the forward cast, your elbow is directly below your hand, which is at ear level and slightly forward of your casting shoulder (Figure 1).

It is part of an overhand baseball throw, which is called a "kinetic whip" because each body part moves in a whip-like sequence, adding to the overall force.

This upright forearm is also important to accuracy by leading and thus controlling the vertical forward move-ment of. your fly rod and unrolling. fly line. I believe this is why most tournament casters use an elbow-forward style Most elbow-forward casters also use this vertical plane, offset slightly, for the back cast to simplify the fly line's path as it changes direction from backward to forward. The arm-lifting motion of this back cast is called "shoulder flexion." Lowering the elbow on the forward cast is "shoul-der extension." This is the arm style of people who have most influenced casting in California, including Jimmy Green, Mel Krieger and Steve and Tim Rajeff. They personify a longstanding link between our interests in tournament fly casting and trout and steelhead fly fishing. The elbow-forward style also characterizes the casts of other notables, such as Joan Wulff, Jerry Siem, and Gary Borger.

In the "elbow-up-to-the-side" style, the forward cast starts with your elbow positioned directly out to your side at about shoulder level with your casting hand directly above your elbow (Figure 2). In its simplest form, the upper arm acts like

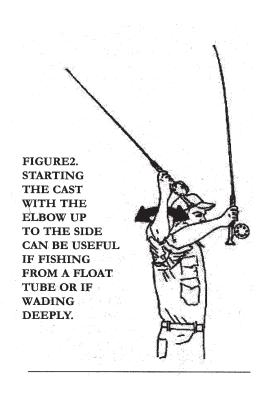
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a rotisserie, rotating without going anywhere. Thus, on your back cast, your forearm and rod are rotated up and backward around a stationary elbow and then rotated ahead of your elbow on your forward cast. This shoulder movement is called "external rotation" on the back cast and "internal rotation" coming forward. Casting instructors sometimes criticize this arm style as being a poor throwing motion because your elbow lags behind your hand. However, this movement relies more on your shoulder, which is exerting force in a strong throwing motion.

I see this casting style most often in fly fishers who habitually cast from a float tube or when wading deep. The need to keep the elbow high and dry invites this shoulder' movement. I also see this style used by stream anglers casting nymph riggings with weight on the leader. To avoid tangling, they use wide loops and change the casting plane. Thus, they make a sidearm back cast, then lift the elbow to come forward over the top. Such situational uses of an arm movement can carry over into all your fishing and influence your casting style. A number of casters, including Dan Blanton and Bruce Richards, cast beautiful loops with this style.



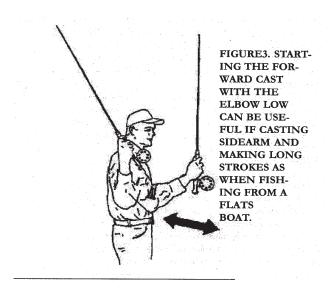
Figure 1. START-ING THE FOR-WARD CAST WITH THE ELBOW FOR-WARD CAN ADD FORCE AND ACCURACY TO THE CASTING STROKE.



Low Elbow

In the "low-elbow" style, your elbow is kept low, down close to your body, and moved back and forth mostly from the shoulder. Even so, your hand comes up somewhat on' the back cast to lift the line and downward on the forward cast enough to keep it from hitting your rod tip (Figure 3). When going for distance, most low-elbow casters open up their stance by dropping the casting side back. This c combination of arm style and stance lends itself well to sidearm casting long strokes and saltwater fly fishing The low to and hard position provides additional strength to help you force a bend into stiff, heavy fly rods, the long arm movement helps control long lines in the wind, and the sidearm cast helps keep heavy rods low and big hooks away from your eyes. In trout-fishing schools, I most often select this style to provide a strong arm position for small or slightly built students, as well as to teach a side-arm cast.

I have been surprised by the number of people who have expressed relief in finding that 'it's OK' to cast differently than their instructor. If your loops are good, you shouldn't have to feel self-conscious.



To understand this style better, I recently spent time with professor Craig Johnson, who teaches both biomechanics and fly casting at Saint Mary's College, in Moraga [California]. We discovered that this shoulder movement, though occurring in a diagonal, rather than vertical plane, is opposite to that used by elbow-forward casters. In the elbow-forward style, you start with shoulder flexion (lifting' the elbow in front) on the back cast, then shoulder extension (lowering the elbow) on the forward cast. This order is reversed in the low-elbow style, where you sort with shoulder extension (moving the "low" elbow back) on the back cast, then shoulder flexion; (moving the elbow forward) on the forward cast. We were fascinated to learn that the same body part can be moved in the opposite direction, using directly opposing muscle groups, yet produce the identical effect - an overhead cast.