GRIP MECHANICS

The following provides info on the mechanics of the grip.

The references for the information are Grant's Atlas of Anatomy by Anne M.R. Agur B.Sc (OT) M.SC. & Ming J Lee MD, Lippincott Williams & Wilkins, 1943-1999, and Henry Gray's Anatomy of the Human Body, Lea & Feibiger, 1918, plus other sources on and off the Internet.

TENACITY AND STRENGTH

TENACITY

The TENACITY of the grip, is dependent on the ring and little fingers.

The third knuckle of those fingers are hinge joints.

When you grasp something tightly, they roll forward and down to "lock onto" it.

In Grant's Atlas of Anatomy, on the top portion of page 513, there is a drawing of a hand loosely grasping a round bar, and one showing the bar being grasped firmly.

In the drawing of the hand loosely holding the bar, the bar is being held horizontally and with the knuckles face the viewer. It looks similar to this.

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From left to right, the X's represent the knuckles of the little finger, ring finger, middle finger, and the index finger. The tops of the knuckles are seen to be roughly in line with, and level with each other.

In the drawing showing the bar being grasped firmly, the bar is seen to be tipped or angled down on the left side, and angled up on the right side. And, the knuckles of the ring and little fingers are no longer in line with, and level with the knuckles of the index and middle finger. They now are rolled forward and down some.

If you were to hold a bar horizontally in your right hand, and then grasp it firmly, it would tip down on the right side and up on the left side. And the knuckles of your ring and little finger where they meet your hand, would be rolled forward and down some.

To test this, hold your hand out in front of you, palm down, and make a relaxed fist. Then clench

your fist tightly. Note the movement of the knuckles of your ring and little finger where they meet your hand.

The knuckles of the index and middle finger are rigid and stable where the fingers meet the palm of the hand, while the knuckles of the ring and little finger, are hinge joints that can rotate forward. **It is that movement which gives tenacity to the grip.**

If you hold a gun loosely, and then grip it firmly, the barrel will move down some and to the left. A heavy trigger pull, such as that experienced with double action, where the trigger is used to both pull back the hammer and fire the gun, will add to that movement.

Also a big or fat gun grip can prevent the ring and little fingers from moving forward and locking down. That will result in a weak grip.

STRENGTH

The STRENGTH of the grip is dependent on the extension of the hand and wrist.

And extending the index finger along the side of a gun to point with (using the P&S method), helps to extend the wrist and strengthen the grip.

On the lower part of page 513 in Grant's Atlas of Anatomy, there are two drawings of a hand and wrist.

One shows a hand with the wrist extended. The thumb and fingers are pointed straight out and away from the viewer. The other drawing, shows a hand grasping a round bar and holding it vertically. The wrist is extended in that drawing as well.

There is a note below the drawings which says that the grip will be feeble and insecure if the wrist is not extended.

The note continues on to say that there are three large muscles in the lower arm that extend the hand at the wrist joint. They act as synergists, and are essential to the strength of the grasp. Those muscles are attached just forward of the wrist to the bones of the little, middle, and index fingers in the hand.

There is another large muscle in the lower arm that acts to extend the hand at the wrist joint, and the fingers at the joints where they meet the pad part of the hand. That muscle has tendons associated with it that are attached to the forward part of the fingers.

Finally, there are two other large muscles in the lower arm that can act to extend the little finger and the index finger.

One attaches to the little finger, and the other attaches to the index finger.

They can act separately to extend either finger, and by continued action, assist in extending the wrist.

All of the muscles mentioned are used for extension, and they are controlled by the Radial Nerve whose main function is the control of extension actions.

One of those actions is the extension of the index finger which is a key to the strength of the grip.

As such, I believe that it is better to use the middle finger to pull the trigger than the index finger in close quarters shooting situations.

The grip also allows the index finger to be used to aim a gun fast, automatically, instinctively, and accurately. And it also allows the muscles and tendons associated with the index finger, to act naturally and mechanically to enhance and strengthen the grip.

Using the index finger to pull the trigger, actually corrupts the balance, symmetry, and strength of the grip. It also allows torque and recoil forces to disrupt the integrity of the grip.

On the other hand, with P&S, the balance, symmetry, and integrity of the grip is better maintained, and the grip will be tenacious and strong.

Also, low and left shooting which is caused by grasping the gun very firmly, will be of little consequence. As the gun barrel will be slaved to the index finger, and the gun will be held in the strong pincer made up of the thumb and index finger. Any increase in their pressure on the gun, will only increase the strength of the grip and the stability of the P&S shooting platform.

To shoot fast, naturally and accurately, all one needs to do is point their index finger at a target, and pull the trigger.

End.