PART THREE: The psychology of control
Feedback is the driving vehicle of coaching in martial arts and combat sports. How coaches use this vehicle has the potential to influence motor performance, learning and motivation of trainees. In this final installment of this series, we will introduce two important concepts pertaining to coaching in martial arts: the first is ‘controlling’ feedback, and the second is what’s called ‘autonomous-supportive’ feedback.

Controlling feedback refers to cues and instructions in which the coach tells the athlete what to do, and the athlete is expected to do regardless of their own preferences or opinions. In other words, this type of feedback deprives the athlete of a sense of choice and control; for example, “You must kick with your left leg every time your opponent punches” and “You have to move around the ring more”.

By contrast, autonomous-supportive feedback refers to cues and instructions that provide the athlete with a sense of choice and control, even if it’s only minor — for example, “You may want to consider kicking with your left when your opponent punches” and “Do you think moving around more will be beneficial?”

There is evidence suggesting that autonomous-supportive feedback is superior to controlling feedback and should be favoured accordingly. Let’s look at the reasons why...

**SUPPORTING VS CONTROLLING**

Recent research demonstrates the effectiveness of autonomous-supportive feedback in comparison to controlling feedback. Studies in this area typically involve two groups — a ‘choice’ group and a ‘no-choice’ group — performing a similar motor task. Participants in the choice group have control over one variable in the practice environment, whereas members of the no-choice group don’t. Other than that, both groups go through exactly the same routine. In one such experiment, novice taekwondo students who were allowed to choose the timing of the feedback improved their poomsae (forms) performance compared to the no-choice group. In other studies, the choice group was allowed to select the number of practice trials of the motor task. For instance, basketball shooting accuracy was improved when participants were allowed to select the number of shots delivered in a training session as compared to a no-choice group that was stopped after delivering a comparable number of shots.

Other investigations involved the order of the exercises. For example, allowing one group to choose the order of three balance exercises to be completed led to a considerable improvement in balance performance compared with the no-choice group. Interestingly, the significance of the choices themselves has no bearing on their beneficial effects. In a study conducted by one of us (Gabriele Wulf), it was observed that trainees who were allowed to choose just the colour of a golf ball improved their golf putting accuracy compared to the no-choice group!

This concept has also been tested in the field of combat sports. Recently, we wondered if choice effects persist among high-level combat sports athletes, so we decided to put this question to the test with one of my [Israel Halperin’s] top athletes, a current ISKA kickboxing world champion. During six testing days, we asked the athlete to complete two rounds of 12 single, maximal-effort punches on a ‘punching integrator’ that measures force and velocity. In the choice round the punches were delivered in an order selected by the athlete, whereas in the no-choice round the order was predetermined. Surprisingly, we found that on all days the athlete punched...
The choice is yours.

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