

On Cook's "3R" Approach

The "3R" approach of reset, reinforce, and reload (in that specific order) is part of the "standard operating procedure" (SOP as Gray Cook often refers to).

Cook (n.d.) quoted, "Movement responses involving pain are inconsistent and unpredictable." Weingroff and Butler (n.d.) stated that "there's an undeniable change in motor control in the presence of pain [or the perception of pain]" and "motor control is both unreliable and very difficult to intervene if we intervene within a painful pattern".

The "reset" is some form of therapeutic intervention (e.g. manual treatment/procedure) which may include the examples of release techniques I listed, but not limited to such. The "reset" (or first step) may be initiated after the clinician has dealt with any acute inflammation/distress (e.g. after the acute post-operative period). A "reset" is like the body "rebooting" and responding demonstrated by "movement changes in a positive way" as a direct result of a manipulation, adjustment, soft tissue work, mobilization (as a few examples) (Cook, n.d.). I associate the chapter on Janda's soft-tissue assessment (trigger points, painful lesions, disturbance of the tonic-phasic equilibrium, muscle imbalance) with this concept of needing a systemic "reset" (Page, Frank, & Lardner, 2010).

The purpose of "reinforcement" is to protect the reset--try to reinforce the "reset" so that the reset sticks. There are two categories of reinforcement--protective or corrective (Cook, n.d.). A protective reinforcement attempts to prevent a situation from worsening and perhaps give the client more functionality; a corrective reinforcement is like a temporary aid (e.g. taping) that provides the system with additional sensory information so that the "reset" may be maintained (Cook, n.d.).

I agree with you that in the best of patient-situations, the examples I mentioned would be temporary "crutches" not meant to replace true muscular function. However protective reinforcement may have to be more permanent due to a patient's genetics or permanent dysfunction. I have had flat feet my entire life; I will not ever get rid of my overpronation. I may need custom footbeds/orthotics in order to spare other body parts and improve my overall functionality.

The last step is "reloading" (the "exercise" part) where work is done to re-establish a new (corrected) movement pattern. One wants to "reload" the motor programming (much like computer software). From your questions on the "reload", the "reload" I am talking about is a figurative "reload". You are correct that the "reload" will vary per individual. To my understanding we are not talking about how much resistance to "load" on a client's exercise, etc. Think of it as a software "rewrite", a software "patch" or "upgrade" to correct a dysfunctional movement pattern. "Reload" is re-patterning. This is the [corrective] exercise design and programming.

Under duress, the athlete defaults the lowest level of training. Under duress, the body tends to select the "easiest path", and when talking about movement, that "easiest path" may be a dysfunctional movement pattern (DMP). In order to change the DMP or "bad habit", one needs

to break that bad habit (reset; e.g. don't buy any more cigarettes). If one initially stresses the system too much, the system will fall back into the bad habit (relapse). However, if one challenges the system just enough, but provides some "crutches" (reinforcement; e.g. nicotine patch) then this opens a window of opportunity for positive change (reloading/re-patterning; e.g. no cigarettes and no nicotine patches).

References

Cook, G. (n.d.). *The three R's*. Retrieved from <http://www.otpbooks.com/product/gray-cook-the-3-rs/>

Page, P., Frank, C. C., & Lardner, R. (2010). *Assessment and treatment of muscle imbalance: The Janda approach*. Champaign, IL: Human Kinetics.

Weingroff, C., & Butler, R. (n.d.). *Charlie Weingroff and Robert Butler: A systematic model for rehabilitation*. Retrieved from <http://www.otpbooks.com/product/charlie-weingroff-and-robert-butler-a-systematic-model-for-rehabilitation/>