



Periodization

What Determines Periodization?

- ▶ **Proactive Vs Reactive**
- ▶ **Schedule**
- ▶ **Goals**
- ▶ **Progressions**
- ▶ **Stimulus/Physiology**

Proactive Vs Reactive

► Proactive

- Planned ahead of time
- Determined by coach
- Requires more information and confidence ahead of time.
- Provides structure and a look into the future.
- More convenient and manageable between coach and client.

► Reactive

- Reaction to conditions
- Requires client involvement
- Requires less up front information, but more confidence in client assessment.
- Less structure but more potential and may seem more “individualized”.
- Requires more communication between coach and client and program creation is reactive making time management more challenging for a coach.

Combining Proactive & Reactive

- ▶ Allows for the creation of a plan that is time flexible.
- ▶ Client must still understand the “if/then” conditions to progress through the plan
- ▶ Coach can create plans ahead of time making it easier to manage time.
- ▶ Best to have an “audible” condition in case things do not go as planned.

Periodizing based on....

- ▶ You need to choose the most appropriate variable to proactively periodize around.
- ▶ This is the variable that most significantly influences the need for change.
- ▶ If you reach the goal of a program before you run out of trainability, you do not need to continue it further
- ▶ If a clients schedule dictates their training needs to be changed before any goals are met, it doesn't matter, you have to come back and finish that goal when the schedule allows.
- ▶ If you run out of trainability before you reach a goal, you should periodize out and come back to finish reaching the goal.

Periodizing based on schedule

- ▶ **Client schedule changes:**
 - ▶ **Stress load**
 - ▶ **Training Duration/Frequency**
 - ▶ **Outside training performance/energy demands**
 - ▶ **Ability to nutritionally support the training**
 - ▶ **Ability to logistically complete the workouts**

Periodizing based on goals

- ▶ Skills & Coordination
- ▶ RPE/RIR
- ▶ Volume acclimation
- ▶ Performance Goals
- ▶ Physique

How would you change periodization for lifestyle clients

- ▶ Less compliant, missing or incomplete workouts/programs
- ▶ Preference likely trumps physiology
 - ▶ What's easier for both parties?
 - ▶ Does a certain strategy impact the success rate in either direction?
 - ▶ What service does the client really want from you?
 - ▶ Accountability Vs Intellect

Nutrition periodization/ guidelines per stimuli

- ▶ By stimuli
 - ▶ Carbs are more essential for metabolic, then hypertrophy, and the least for strength. Carbs are not as important for systemic unless combined with local metabolic or high frequency
- ▶ Calorie cycling with stimuli/phases
 - ▶ Dietary deficit driven fat loss with metabolic potentiation
 - ▶ Restriction driven deficit with hypertrophy phase diet breaks.

Undulating periodization for gen pop, what would be the benefits?

- ▶ Increase exercise and movement variation
- ▶ Have Blocks for goals, and satisfaction of completion.
- ▶ Structure for changes in intensity and progressions
- ▶ Entertainment
- ▶ Psychological benefits of faster results when things are novel
- ▶ Psychological benefits of skill acquisition and accomplishments.

Periodizing based on stimuli / physiology

- ▶ Do you need to periodize or de-load?
 - ▶ Remember volume is the amplifier
- ▶ How specific is the stimuli to the goals?
 - ▶ Is there actually a cost to progress if you periodize early or late?

How often to change the stimuli

- ▶ **Results vs Symptomology**
 - ▶ Achieving an adaption
 - ▶ Running out of trainability
 - ▶ Progress usually slows before symptoms present, but not always. Individual responses to fatigue and recovery limitations vs training performance can vary a lot.
- ▶ Try to eliminate time with slow or no progress.
- ▶ Try not to put a client in a position where they have a high probability of setting themselves back.

Physiology Ranges for Stimuli

▸ Systemic

- Programmed as a de-load 1-2 weeks is sufficient
- Programmed for stimulus/adaption, 2-4 weeks
 - Largest rate of adaptations occurs with 3 weeks (growth hormone etc)
 - Often times the first week may be sub maximal or very performance limited depending on the prior stimulus though.
 - For conditioning purposes (aerobic/CV adaptations) you can continue for longer periods as long as volume:recovery is in check
 - 3 weeks at maximum effort and volume is usually the limit, however often times this architecture can be used at lower volumes and efforts for time efficiency or improving systemic adaptations while easing into tension training.
- When total weekly volume is not that high, can be used for long periods, with optional 4-7 day deloads

Physiology Ranges for Stimuli

▸ Local Metabolic

- Programmed as a de-load 1-2 weeks is sufficient
- Programmed for stimulus/adaption, 2-6 weeks
 - Largest rate of adaptations occurs with 2 weeks, but doesn't plateau until >4 (mitochondrial)
 - Often times the first week may be sub maximal or very performance limited depending on the prior stimulus though.
 - 3-4 weeks at maximum effort and volume is usually the limit if using any of the more oxidative architectures.
 - To accumulate more mitochondrial adaptations, frequent periodization may be more beneficial than longer phases.
 - When total weekly volume is not that high, can be used for 8-12 weeks, with optional 4-7 day deloads, however this isn't optimal for hypertrophy and especially strength unless you are still including some higher intensity work.

Physiology Ranges for Stimuli

▶ Mechanical Tension

- ▶ Less about the direct stimulus burning out
- ▶ Loss of metabolic and systemic conditioning
- ▶ Running into volume:recovery limits
- ▶ Motor patterns or fibers becoming stagnant
- ▶ “Over use” symptoms
- ▶ Volume based fatigue

Physiology Ranges for Stimuli

- ▶ Mechanical Tension phase regulation
 - ▶ Performance/Progressive Overload
 - ▶ Performance across volume
- ▶ Recovery Markers
 - ▶ Sleep, appetite, energy
- ▶ Mental Markers
 - ▶ Motivation/readiness to train, mood

Physiology Ranges for Stimuli

▸ Neuro Intensity

- Fatigue in the stimulus is usually a result of frequency and volume being too high more than the phase being too long.
- Coordination phases should reach the outcome goal before any problems from the training stress.
- Progress in strength occurs when there is plenty of tissue relative to the motor pattern adaptations.
 - As you get closer to your max potential for the tissue it can be more efficient to focus on adding tissue.
- Loading and overuse symptoms can occur more/less rapidly depending on exercise selection and volume.
- General Volume:Recovery is often the cause of stagnation.

Physiology Ranges for Stimuli

- ▶ Neuro phase regulation
 - ▶ Performance/Progressive Overload
 - ▶ Peak performances suffer
 - ▶ Recovery Markers
 - ▶ Sleep, appetite, energy
 - ▶ Mental Markers
 - ▶ Motivation/readiness to train, mood

Constraints / Preferences



▸ Training Frequency		
▸ Session Duration		
▸ Split		
▸ Super/extended sets		
▸ Work:Rest Ratio		
▸ Volume:Intensity		
▸ Training History Preferences		
▸ Logistical Constraints		
▸ Exercise/Variable		



Plan Overview



Plan Overview



	Phase 1	Phase 2	Phase 3
Goals			
Stimuli			
Progression			
Duration			
Resistance Program Summary			



Plan Overview



	Phase 1	Phase 2	Phase 3
Nutrition Goals			
Strategy			
Progression			
Duration			





Progression Methods

DIRECT PROGRESSION METHODS

- Add Load
- Add Reps
- Increase Density
- Accentuating Tempo
- Add Partial
- Add sets



INDIRECT PROGRESSION METHODS

- RPE/RIR
- Velocity Climbing
- Exercise Selection
- Exercise Order/Pairings



PROGRESSING Vs MAINTAINING STIMULUS

- Maintains effort within the range for the same stimulus
- Increasing weight while maintaining the same reps to maintain RPE/RIR



PROGRESSING TO INCREASE THE STIMULUS

- Increases the average effort or volume while keeping training variables aligned with stimulus.
- The same sets volume at a lower average RIR
- The same set volume at a higher RPE
- More set volume
- Higher frequency of the same volume

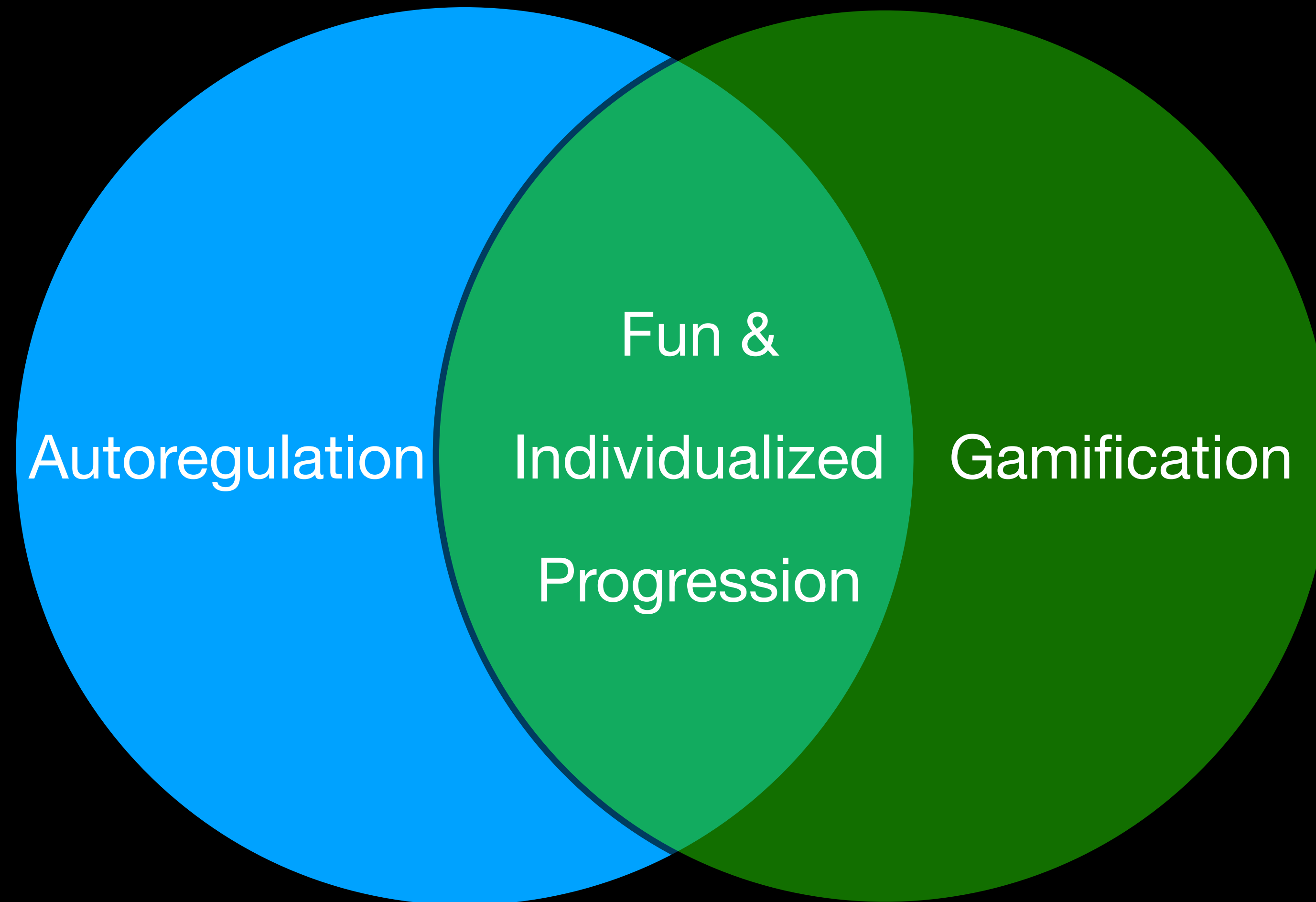


PROGRESSING TO CHANGE THE STIMULUS

- Changes the intensity and or density over time.
 - Progressing from higher to lower reps
 - Progressing from longer to shorter rest
 - Progressing from shorter to longer or extended sets
 - Adding reps, drops, partials, etc



AUTOREGULATION Vs GAMIFICATION



Gamification of Progressions can be synergistic with the way you want the stimulus and intensities of the program to progress while also adding a motivational bonus.

PROGRESSION SCHEMES

- Typically Involve using one progression to trigger a progression in one or more additional progression types
 - Example: Progress reps until you hit a number then increase load.
- Per set vs total rep trigger methods
- RPE/RIR triggers
- Undulating and Rotation Progressions



DOUBLE PROGRESSION METHODS

- Using a rep range
 - When you can achieve the top of the rep range, triggers a load increase that should put you back near the bottom of the rep range, and then you repeat the process.
- Using RPE/RIR range
 - When you achieve a performance at the bottom RPE, you add load or reps.
- Can be done on a single set basis, or for a group of sets



PER SET Vs TOTAL REP/MULTI-SET TRIGGERS

- Per set - Progress is triggered by specific set performance
 - Allows more control over individual sets
 - More frequent progression triggers
 - Great for lower set volume
 - Can create performance fluctuations in later sets.
- Multi-Set - Progress is triggered by performance across multiple sets (*total reps)
 - Focus's more on the total volume
 - Buffers out variations in set performance
 - Can keep motivation for effort across more sets
 - Harder but not impossible to do with complex rep schemes and extended set methods



PROGRESSING SETS Vs THE SET STEP METHOD

- Progressing sets
 - You progress specific or all sets by a designated amount.
- Step Method
 - You cut the easiest set and add a harder sets.
 - Usually used with a Multi-Set performance trigger
 - Requires at least 3 sets, but is usually used for 4+ set methods.
 - Psychologically has a “graduation” factor to it.



UNDULATING & ROTATING PROGRESSIONS

- Across Sets:
 - Progressions are applied to different sets over time, usually in some sort of rotating or cyclical manner, or a trigger in set performance triggers a change in where progression is applied.
- Across Exercises
 - Progressions are applied to different exercises over time, usually in some sort of rotating or cyclical manner, or a trigger in set/exercise performance triggers a change in where progression is applied.
 - Can be combined with set rotations



WHY CAP OR ROTATE PROGRESSIONS?

- Even out performance / stimulus across volume of sets or exercises.
- If you always progress in the first exercise, it may keep you from progressing in later exercises, which could bias the stimulus more than you want, or be exactly what you want.
- Example: Once you double progress set 1, you cap the set until you double progress set 2, and so on. Or the same thing but for exercises 1 & 2 for the same body part.



EXERCISE ORDER CHANGES BASED ON PROGRESSION TRIGGERS

- You have exercises A, , and CB for the same body part.
- If you set a progression goal for Exercise A and meet it, then A goes to the end of the workout, and you now focus on progressing B. Then you repeat the process eventually moving exercise C to the beginning of the workout.
- Usually by the end, you are now doing the goal performance of all exercises even when they are later in the workout.
- These progressions can be # of progressions instead of a specific number of reps or weight.



PRACTICAL CONSIDERATIONS FOR PROGRESSIONS

- Managing difficulty and number of decisions the client has to make in the program.
 - The more often a client is changing weight, the more room for error and mental load
 - The more fluctuation there is in effort across sets between workouts, the harder it is to assess progress (Remember what adaptations you'd expect from your stimulus)
- Managing client motivation and behavioral attributes
- The progression model can be a way of improving your ability to assess when a program/stimulus is stalling.





Progression Periodization Interaction

PERIODIZATION IS NOT LIMITED TO TIME

- Periodization is usually only looked at through the lens of time. “How long should I do this program”
- When and why would I be done with this program is often a better way to look at it.
- If you understand how progressions relate to stimulus, or you have specific goals for a program, this can transcend the time logic to a more individualized periodization approach.



PROGRESSION TRIGGERS FOR PERIODIZATION

- Progression Goal triggers periodization
- Progression Number triggers periodization
- Progression:Time Ratio triggers periodization
 - Too long between progressions / Slower progress



PROGRESSION GOAL = PERIODIZE

- Setting a performance goal can be great for certain programs, and non contextual for others.
- Goals
 - Weight/Rep Performance totals
 - % Performance Increase



PROGRESSION NUMBER = PERIODIZE

- Sometimes it's not the magnitude of progressions but number of progressions
- This is often applied to multi-set progression methods.
- Once you have triggered a certain progression X amount of times, we may look to periodize because it's a sign we have gotten what we wanted out of this stimulus.



PROGRESSION RATE = PERIODIZE

- This usually applies to the stimuli and programs that are most strongly correlated to your primary goal and you are trying to stay in those programs for longer periods of time.
- If we haven't progressed X in this amount of time, we periodize
- If we go X amount of time without these progression triggers, we periodize
- If we haven't reached X progression by this amount of time, we periodize.

