**Comparison of Wilensky and Rand (W&R) against Railsback and Grimm (R&G)**

*Note: when unspecified, assume the point is referring to W&R; R&G is used as a contrast and is explicitly named when it is being referenced. Pro and Con refer to pro/cons of W&R as contrasted with W&G.*

*Pro:*

* Focus on learning NetLogo over ODD protocol
  + Because of R&G book organization (by ODD order), it teaches NetLogo in a strange/confusing order ie.
* Emphasis on models library (chapters 1, 3)
* Clearer explanations of primitives (eg. random on p. 54, )
* Much more in depth explanations of code snippets
  + piece by piece instead of whole chunks at a time (Jake comment)
  + R&G tends to provide hints, but leave a lot up to the reader to look up commands and understand how they are working in context; this is an invaluable skill, but it can be difficult for someone just starting out with programming to know how to do this with no real examples (as are provided in W&R)
* Better teaching order (creating simple models, modifying complex models, creating complex models, components, …), whereas R&G covers a lot of more abstract techniques before getting into the fundamentals of netlogo (eg. whole chapter on ODD)
  + might be good that it takes a while to get to verification and validation (chapter 7); R&G's chapter on this is very early and throws a lot of techniques at the learner before really teaching how to program in netlogo
* Presents ~3 thorough examples of model construction/modification in each chapter; this approach is much more thorough and aids the understanding better than R&G
  + R&G tends to give a single example and then throw a lot of semi-ambiguous questions; for a beginner, it can be very difficult to see how to proceed with no hints
* More questions than R&G
  + roughly equivalent in difficulty/open-endedness
  + however, W&R has significantly more questions, giving more options to choose from
  + has some more straightforward questions which clearly say what they want
  + questions might be more straightforward and easy to understand because there is so much more explanation in the preceding chapters
  + Both books' questions increase in difficulty from beginning to end of question set at the end of each chapter
* More easy to understand in general; clearer explanations; eg. of plots; lots of pictures which help immensely
* Clearer discussion of model analysis in chapter 6 (broken into 4 kinds)

*Con:*

* No ODD (is this actually a con?)
* Chapters may be a bit too long/comprehensive (too many examples?); (however, they are modular, so could easily assign parts of chapters)
* Takes a long time to get to BehaviorSpace and Data collection (chapter 6); earlier analysis features more qualitative, interface based manipulation (eg. covers plots more thoroughly than R&G)
* Takes a long time to get to verification, validation, replication (chapter 7)
  + R&G covers in Chapter 6 (but chapters are shorter); this is maybe too soon though

*Principles:*

* W&R Works more on an “immersion”-type teaching paradigm
  + starts out by carefully guiding through construction of increasingly complex models
  + Components of Agent-Based Modeling in Chapter 5, grounding and explaining what has been taught
  + Analyzing ABMs in chapter 6, behaviorspace
  + Verification and Testing in chapter 7
* R&G is very focused on the ODD paradigm and organizes the book around this
  + Tends to be less immersive and a bit more abstract, provide fewer examples, expect the reader to figure out more
  + Arguably more suited for readers with some experience programming, as it does not spend as much time explaining details (as W&R)
  + Overall, more weight placed on readers in looking up and figuring out things for themselves online