Of Nizegys and Meenies

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Introduction

Introduction

- In this example, we discuss a scenario in which two professors
  1. Team-teach a course, and
  2. Combine their grades to produce a final grade
- Track the example carefully. At the end of the example are some questions.
- Prepare your answers and be ready to present them to the class.

Two Professors

- Suppose that a course is taught by two professors.
  1. Professor Nizegy is an easygoing, very popular individual, and a very lenient grader. His grades tend to be high and show very little variability
  2. Professor Meenie is a rather grouchy person who is also a very tough grader. His grades tend to be rather low and also show considerably more variability than Professor Nizegy.

Two Professors

- Suppose that these two professors both grade on a valid *interval scale of measurement*.
- However, the metrics are different for the two professors.
- Nizegy teaches the first half of the course, Meenie the second half.
- Each professor gives the student a grade for their half of the course, and then the grades are averaged to produce a final grade.

Details of the grading

- To keep the example simple, suppose that there are only three levels of performance shown in the course, and that these actually correspond to *three evenly spaced performances*.
- These three levels are "Good", "Average", and "Bad".
- These three levels are evenly spaced, in the sense that the actual difference in performance between "Good" and "Average" is the same as the difference between "Average" and "Bad."
- This means that any system of grading that assigns evenly spaced, correctly ordered values to these three performance levels has achieved an *interval level of measurement*.

Details of the grading

- Nizegy and Meenie have such grading standards.
- As you can see, each assigns evenly spaced numbers to evenly spaced performances.
- So Nizegy and Meenie both grade on a interval scale.
- However, their scales are different.

	Professor's Grade	
Student Performance	Nizegy	Meenie
Good	90	80
Average	85	65
Bad	80	50

Details of the Grading

- Now suppose just three students take the course.
- For simplicity, we call them A, B, and C.
- Here are their performances. As you can see, their performance patterns are different.
  1. One student, A, starts well, but ends poorly.
  2. One student, C, starts poorly, but ends well.
  3. One student, B, is consistently average throughout.
- Over the course of the semester, their performances overall average out to be the same, assuming that both halves of the course are equally important in the grading scheme.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	Good	Bad
B	Average	Average
C	Bad	Good

Details of the Grading

- Let's insert numerical grades corresponding to the two grading metrics, and see what grades the students actually get in the course.
- Let's do the first half grades first.
- Recall that Nizegy grades Good, Average and Bad as 90, 85, and 80.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	Good	Bad
B	Average	Average
C	Bad	Good

Details of the Grading

- Let's insert numerical grades corresponding to the two grading metrics, and see what grades the students actually get in the course.
- Let's do the first half grades first.
- Recall that Nizegy grades Good, Average and Bad as 90, 85, and 80.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	90	Bad
B	85	Average
C	80	Good

Details of the Grading

- Let's do the second half grades.
- Recall that Meenie grades Good, Average and Bad as 80, 65, and 50.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	90	Bad
B	85	Average
C	80	Good

Details of the Grading

- Let's do the second half grades.
- Recall that Meenie grades Good, Average and Bad as 80, 65, and 50.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	90	50
B	85	65
C	80	80

Final Course Grades

- Now, let's compute the course grades.
- These will simply be the average, or *mean* of the grades assigned by Nizegy and Meenie.
- In case you never realized it, the mean of two numbers is a point exactly halfway between them.

	Performance	
Student	First Half (Nizegy)	Second Half (Meenie)
A	90	50
B	85	65
C	80	80

Final Course Grades

Here are the final course grades:

Grades			
Student	First Half (Nizegy)	Second Half (Meenie)	Final Grade
A	90	50	70
B	85	65	75
C	80	80	80

Questions for Discussion

Here are some questions for discussion. Prepare your answers in written form and be ready to discuss them in class on the assigned date.

- Were the final grades fair? Why (or why not)?
- The two halves of the course were (supposedly) "weighted equally" in the grading scheme. Is there any evidence that, in an important sense, the two halves of the course did not actually "count equally" in the final marks?
- If the two halves did not actually "count equally," whose half (Nizegy or Meenie) "counted more"? If you can, point to evidence in the grade table and performance table that support your assertion. Can you explain, in simple terms, why this phenomenon occurred?
- We presented this example in the context of a team-taught course. However, the lesson of this example generalized in many ways. Present at least 3 examples in the career of a typical Psychology graduate student just starting their graduate career in which the Nizegy-Meenie phenomenon may have *already* manifested itself.