CAEP | Canadian Association of Emergency Physicians

Great Evidence in Medical education Summary (GEMS)

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Educational Question or Problem	Does prior exposure to 'good' versus 'poor' trainee performance bias attending physicians in their assessment of subsequent trainee performance?
Bottom Line	Yes. Attending physicians who were primed by viewing a 'good' performance gave lower scores and more failing grades to a subsequent borderline performance by a different intern on a clinical evaluation exercise than those who were primed with a 'bad' performance. The ability to judge performance was significantly affected by contrast bias, even in experienced raters.
Why is it relevant to Emergency Medicine Education?	As clinical teachers in the emergency department, we are exposed to many learners from different specialties, with various skill levels. This article draws attention to an additional and concealed source of assessor bias in evaluating clinical performance by trainees. Interestingly, the assessors' high level of experience did not protect against contrast bias This bias is particularly relevant in the current context of competency-based medical education, a model which relies on the assessor's ability to compare performance to a set standard of competence.
Reference (include DOI or PMID please)	Effect of exposure to good vs. poor medical trainee performance on attending physician ratings of subsequent performance. Yeates P, O'Neill P, Mann K, Eva KW. JAMA 2012 Dec 5; 308 (21):2226-32. PMID: 23212500
Hyperlink to PubMed link or Journal Link (not all Education Journals are pubmed)	http://www.ncbi.nlm.nih.gov/pubmed/?term=23212500
Study Design	Randomized experimental design with participants blinded to study hypothesis
Funding sources	Association for Study of Medical Education
Setting	Attending physicians in Internal Medicine (and subspecialties) and Emergency Medicine were recruited from teaching hospitals in the United Kingdom.

Level of Learning (Undergrad, Postgrad, CME)	Postgraduate year 1 (PGY-1) medical trainees' performances were assessed.
Synopsis of Study (250 words max). Include significant results or findings that support the bottom line.	In order to investigate for the presence of contrast (relativity) bias, the investigators randomised 41 attending physicians with a mean of ten years of consulting experience to view scripted videotaped clinical evaluation exercises by PGY-1 trainees with either good performance or poor performance. After exposure to the randomly assigned priming condition, assessors were asked to rate scripted borderline quality performances on a Likert scale, using the Mini Clinical Evaluation Exercise (Mini-CEX) assessment tool. All cases and scripts were previously validated. The primary outcome was the score assigned by participants to scripted borderline performances after exposure to study intervention. The borderline performances received significantly lower scores from those physicians assigned to good prior performances (mean score 2.7 vs. 3.4 on a 6-point Likert scale). The borderline performances were also more likely to be characterized as failing by those who had been exposed to good performances than poor performances (55% vs. 24%, $p<0.001$) and less likely to be characterized as passing (8.3% vs. 39.5% $p<0.001$). Multiple linear regression showed that the priming scenario and the stringency index (a measure of participant leniency compared with the peer group) were independently associated with the primary outcome. The findings support the view that assessors are significantly influenced in their rating by prior experience and thus draw awareness to a potential threat to validity of assessments. The educational implications of this phenomenon require further study. The study findings highlight the one of the cognitive processes that influence the rater's assessments, a field which merits further exploration.