Quality assurance / David Shatz

- By definition, peer review means quality control. However, quality control should not be an end in itself. It must have a purpose and proper justification.
- In theory and in practise, peer review works reasonably well. However, problems exist. **Major criticism: the process is biased** (bias = any factor that affects an evaluation but is unrelated to merit (e.g. people, institutions, affiliations, gender)
- Reduction of bias means sacrifices in other respects
- Blind review is not necessarily a solution. Nominated vs. non-nominated reviewers. Bias will come in anyway.
- Peer review is necessarily subjective human activity. Therefore, bias cannot be completely eradicated from the process. Reduction of bias rise other challenges.

- Quality may be difficult to assess on the basis of track records and lists of publications. Reknown journals and celebrated institutions do not necessarily quarantee high quality
- Mathew effect. Those who are famous and fortunate often collect more fame and fortune.
- Selection of reviewers is highly important (ideals of diversity and agreement)
- Risk aversiveness. How to overcome this psychological phenomenon? Shatz: Selfawareness can be a solution

Quality assurance / Johanna Andersson

- Close connection to the previous presentation. Focus on gender bias in the assessment process and funding decisions. Case: observations in four Swedish Research Council evaluation panels (qualitative and quantitative indicators).
- Materials: both written statements and direct observations in panel meetings.
- Generally no special attention was paid to male gender.
- Greater differences in the fields of medicine and engineering.
- In two panels male and female applicants were treated differently in discussions and in written statements.
- Time spent discussing male and female applicants almost the same.
- The question of independence came up most often in cases of female applicants.
- Parental leaves, number of children, etc. social and private issues came up when discussing female applicants. Is this information relevant for peer review? This should be made clear in the guidelines.

- **Gender patterns exist** but they differ in frequency, scope, and expression.
- More awareness of gender in assessment is desirable.
- Independence needs to be well-defined.
- Futher study is needed.

Quality assurance / Anne-Marie Coriat

- Outline of some challanges in the UK Research Councils. Core criteria: Importance, scientific quality, likely productivity and impact
- **Peer review is 'the guardian of scientific legitimacy'. But not without challenges to the quality of peer review. Research funders should be aware of these potential challenges.**
- Foundations of strong peer review: True expertise, anonymity, transparency, fairness, swift decision making (not compromising quality), clear and consistent guidance to applicants and reviewers.
- Challenges – quality of experts: Balancing needs, large scale / multidisciplinary research, bias / conflicts, demand, impact, strategic considerations, scoring.
- Challenges – quality reviews: The right reviewers first time, quality of submitted reviews, clear guidance, two stage peer review, feedback to applicants, training.
- Challenges at board level: Do not compromise quality, use strategy and delivery plans, evindence base is highly important, demand management, innovation.
- Training, process streamlined, management information, openness and transparency, flexibility

Challenges to quality assurance in peer review. Concluding remarks

- Peer review is ’the guardian of scientific legitimacy’. But not without challenges to the quality of peer review. Awareness of potential and actual challenges to the quality of peer review is crucially important on all stages of the process.
- Foundations of strong peer review: True expertise, anonymity (not necessarily in all cases), transparency, fairness, swiftness (not compromising quality), clear and consistent guidance to applicants and reviewers.
- The process is inherently biased. Bias = any factor that affects an evaluation but is unrelated to merit (e.g. people, institutions, affiliations, gender)
- Further challenges to quality assurance: reviewer fatigue, stringency,