1125-N1-1274   **Elise Lockwood*** (`elise.lockwood@oregonstate.edu`), 064 Kidder Hall, Department of Mathematics, Oregon State University, Corvallis, OR 97330, and **Zackery Reed**. *Invited Talk: Students' Meanings of a (Potentially) Powerful Generalized Representation in a Combinatorial Setting.*

In this talk, we provide two contrasting cases of students who solved a series of combinatorial tasks that were designed to facilitate generalizing activity. In these cases, each student generated what externally appeared to be the same representation – a general outcome structure that both students spontaneously developed. However, upon further examination, the ways in which the two students' understood and subsequently used the general representation differed significantly. We seek to explain these differences by identifying two types of relating that emerged in the study, and by connecting this relating to Piaget's notion of reflective abstraction. By comparing and contrasting these students, we gain insight into the kinds of activity that promote both efficacious generalizing activity and robust combinatorial reasoning. We conclude with implications and directions for further research. (Received September 15, 2016)