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*The importance of understanding the inverse relation between addition and subtraction*

My presentation will be about a series of studies on children's understanding of inversion and their use of this understanding to solve arithmetical problems. I will deal with the origins of understanding quantitative inversion and with children's ability to combine their knowledge of inversion with decomposition. I shall also show that children are sometimes able to transform complex problems into easier ones that can be solved with the help of inversion. My presentation will include some data on individual differences in the use of inversion and also on the possibility of improving children's understanding of inverse relations. I shall argue that inversion plays a crucial role in children's mathematical reasoning.