In reverse mathematics, one establishes connections between mathematical principles by proving implications over the base theory $RCA_0$. In practice, such implications are often due to the presence of considerably stronger computability-theoretic reducibilities holding between the principles, which are then merely formalized in second-order arithmetic. For instance, a typical implication $P \to Q$ of $\Pi^1_2$ principles is a formalized uniform reduction, meaning that there are functionals $\Phi$ and $\Psi$ such that, if $A$ is any instance of $P$, then $\Phi(A)$ is an instance of $Q$, and if $S$ is any solution to $\Phi(A)$, then $\Psi(A \oplus S)$ is a solution to $A$. The systematic study of this and related reducibilities in the specific context of $\Pi^1_2$ principles has recently emerged as a fruitful enterprise alongside traditional reverse mathematics. On the one hand, it offers a much finer way of calibrating the relative strength of mathematical propositions, and on the other, it sheds light on several open questions from the traditional analysis. This talk will present a summary of results and problems in this direction. In particular, I will discuss the longstanding open question of whether the stable form of Ramsey’s theorem for pairs ($SRT^2_2$) implies the cohesive principle ($COH$) in standard models of $RCA_0$, and the growing number of recent results towards a negative answer.