**Significance:** The first successful cross-coupling of 2-naphthol metal salts with various aryl Grignard reagents has been demonstrated. The process is atom-economical and gives a convenient access to various naphthalene derivatives.

**Comment:** It is important to note that the halide substituent on the Grignard reagent is critical to the reaction and a bromide was found to be the best. The most efficient solvent system is a mixture of toluene and diisopropyl ether (3:1), most likely because these solvents retain the metallic core framework due to their low coordinating ability.