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Garrett Johnson* (gwjohns3@ncsu.edu) and **Chris Nowlin**. *The FRT-Construction via Quantum Affine Algebras and Smash Products.*

For every element w in the Weyl group of a simple Lie algebra \mathfrak{g} , De Concini, Kac, and Procesi defined a subalgebra \mathcal{U}_q^w of the quantized universal enveloping algebra $\mathcal{U}_q(\mathfrak{g})$. The algebra \mathcal{U}_q^w is a deformation of the universal enveloping algebra $\mathcal{U}(\mathfrak{n}_+ \cap w.\mathfrak{n}_-)$. We construct smash products of certain finite-type De Concini-Kac-Procesi algebras to obtain ones of affine type; we have analogous constructions in types A_n and D_n . We show that the multiplication in the affine type De Concini-Kac-Procesi algebras arising from this smash product construction can be twisted by a cocycle to produce certain subalgebras related to the corresponding Faddeev-Reshetikhin-Takhtajan bialgebras. (Received August 22, 2011)