Maps on noncommutative Orlicz spaces

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We extend the construction of noncommutative Banach Function Spaces pioneered by Dodds, Dodds, de Pagter, et al, and use this generalisation to establish a noncommutative version of the Pistone-Sempi argument in the context of semifinite von Neumann algebras. We then pass to the question of lifting important classes of positive maps defined on von Neumann algebras, to maps on the corresponding noncommutative Orlicz spaces. We focus in particular on describing noncommutative analogues of composition operators.