1135-05-2907 **Sam Bardwell-Evans*** (sbardwel@caltech.edu). *A Generalization of the Carlson-Simpson Theorem Analogous to Gowers' Theorem.* Preliminary report.

We prove a generalization of Carlson and Simpson's Dual Ramsey Theorem that is analogous to Gowers' theorem for FIN_k. Instead of considering the tetris operation $T : \{0, \ldots, k\} \to \{0, \ldots, k-1\}$, we fix a finite, non-empty alphabet A and consider analogous functions $f : A \cup \{0, \ldots, k\} \to A \cup \{0, \ldots, k-1\}$, and instead of finding an infinite sequence of functions b_n in FIN_k such that the set of all finite sums $\sum T^{d_n}(b_n)$ is monochromatic, we find an infinite sequence of (not necessarily finitely supported) functions $b_n : \omega \to A \cup \{0, \ldots, k-1\}$ such that the set of all (not necessarily finite) sums $\sum f_n(b_n)$ is monochromatic. The natural multidimensional generalization of this theorem implies the Carlson-Simpson Theorem. (Received September 26, 2017)