Aneuploidy—the presence of an abnormal number of chromosomes in a cell—arises in both tumors and pathogenic fungi. It has been suggested to be an intermediate step in adaptive evolution, an evolutionary “stepping stone”. Here, we provide evidence that aneuploidy can instead be a “detour”, both at the individual and the population level. We show that in a previously published evolutionary experiment with yeast aneuploid cells likely had less descendants than euploid cells and predict that an aneuploid population would have reached the most adaptive solution faster than the experimental aneuploid populations. These results challenge the common view on the role of aneuploidy in adaptive evolution, with implications for cancer biology, evolution of drug resistance, and evolution of fungal pathogens.