

## Reflection on the Impact of Altering the x Value in the P+x Technique

The P+7 technique, where the last word in each line of a poem is replaced with the seventh-most probable word generated by GPT-2, produces a subtle shift in the meaning of the text. When the x value is altered, such as switching from P+7 to P+40, the impact on the output is dramatic. In the case of **P+7**, the substituted words are generally close in meaning to the original words, preserving some coherence and tone from the original poem. The changes remain within the boundaries of the text's intent, though they introduce a slight sense of absurdity. For example, replacing "winter" with "summer" or "sun" with "rain" subtly disrupts the calm, cold imagery without entirely losing the essence of the original work. However, when the x value is increased to **P+40**, the substitution produces far more unpredictable and humorous results. Words that appear in the 40th spot in the model's ranking are often irrelevant to the context, leading to more jarring and surreal replacements. For instance, replacing "wind" with "bread" or "snow" with "cat" in the poem creates an entirely new, whimsical version that breaks free from the original tone and becomes comically absurd. The randomness introduced by such high values turns the poem into a playful, abstract narrative that may be entertaining, but it no longer holds the reflective quality of the original poem. In terms of the **P+7 technique applied to nouns**, I would modify the approach to identify all nouns in each line and replace them with their seventh-most likely alternatives, instead of just the final word. This could be accomplished by using a part-of-speech tagger to first identify the nouns. Then, for each noun, I would retrieve the seventh-highest probability word from GPT-2. This modification would produce a poem in which the structural integrity remains more intact, but the replaced nouns would create a more striking shift in meaning, likely leading to an even more surreal or absurd interpretation. This technique would affect the poem's imagery and themes, as nouns often carry the primary weight of meaning in a text. The result would likely be a poem that feels both familiar and disorienting, where the essence of each object or concept is altered without disrupting the flow entirely.