Power Creep in the Pokemon TCG

June 14, 2025

1 What is Power Creep?

1.1 Introduction

According to an article on plarium.com, power creep is "when new elements are introduced into a game, with increased strength or abilities, making the existing elements much weaker or even useless." This ultimately results in a game where older elements seem underpowered and outclassed among the new elements. Power creep is a common practice in many competitive games, as it helps retention and keeps people interested in a game. So how does this factor in the Pokemon TCG? Let's look at an example of this in the form of the series mascot: Pikachu.

Pictured above on the left is the very first Pikachu card ever printed, all the way back in 1999. On the right, we have the most recent Pikachu card printed, being printed in 2024. In addition to being flashier and shinier, the Pikachu on the right has five times the amount of health as the Pikachu on the left, and it even does ten times the damage. What happened between 1995 and 2024 to trigger such a drastic change? This question is what inspired me to take a deeper dive into the history of the Pokemon TCG and its cards to further understand how power creep could have such a big impact on these cards.

1.2 Importing our libraries

The following code is run to import the necessary libraries used to explore the data:

```
[5]: import numpy as np
     import pandas as pd
```

1.3 Importing our dataset

The dataset I will be using for this study was taken from kaggle.com. The data is then imported with the code below:

```
[13]: df = pd.read_csv("dataset/pokemon-tcg-data-master 1999-2023.csv")
      df.head()
```

```
[13]:        id    set series publisher generation release_date          artist  \
      0  base1-1  Base   Base      WOTC      First     1/9/1999     Ken Sugimori
      1  base1-2  Base   Base      WOTC      First     1/9/1999     Ken Sugimori
      2  base1-3  Base   Base      WOTC      First     1/9/1999     Ken Sugimori
      3  base1-4  Base   Base      WOTC      First     1/9/1999  Mitsuhiro Arita
      4  base1-5  Base   Base      WOTC      First     1/9/1999     Ken Sugimori
```

```
        name set_num           types  …  \
0   Alakazam       1     ['Psychic']  …
1  Blastoise       2       ['Water']  …
2    Chansey       3  ['Colorless']  …
3  Charizard       4        ['Fire']  …
4   Clefairy       5  ['Colorless']  …


                             retreatCost convertedRetreatCost      rarity  \
0  ['Colorless', 'Colorless', 'Colorless']                  3.0  Rare Holo
1  ['Colorless', 'Colorless', 'Colorless']                  3.0  Rare Holo
2                         ['Colorless']                  1.0  Rare Holo
3  ['Colorless', 'Colorless', 'Colorless']                  3.0  Rare Holo
4                         ['Colorless']                  1.0  Rare Holo


                             flavorText nationalPokedexNumbers  \
0  Its brain can outperform a supercomputer. Its …                  [65]
1  A brutal Pokémon with pressurized water jets o…                  [9]
2  A rare and elusive Pokémon that is said to bri…                 [113]
3  Spits fire that is hot enough to melt boulders…                  [6]
4  Its magical and cute appeal has many admirers…                  [35]


            legalities                           resistances rules  \
0  {'unlimited': 'Legal'}                               NaN   NaN
1  {'unlimited': 'Legal'}                               NaN   NaN
2  {'unlimited': 'Legal'}  [{'type': 'Psychic', 'value': '-30'}]   NaN
3  {'unlimited': 'Legal'}  [{'type': 'Fighting', 'value': '-30'}]   NaN
4  {'unlimited': 'Legal'}  [{'type': 'Psychic', 'value': '-30'}]   NaN


  regulationMark ancientTrait
0            NaN          NaN
1            NaN          NaN
2            NaN          NaN
3            NaN          NaN
4            NaN          NaN

[5 rows x 29 columns]
```

Let's also break down what all of the data in the dataset means.