If you understand the bad things your amplifier does to your good signal, you can correct the errors somewhere in the system.
Two Linearizer Realms:

1. Add a few dB of acceptable performance to the output power of an adequate amplifier.

2. Suppress the low-level distortion products another 20 dB below the low-level distortion products of an already exceptionally clean amplifier.

artists in these two kingdoms may not know each other or speak a common tongue.
How to do it page 1:

Based on mathematical distortion models based on measurement, calculate a correction term to add:

- to input -- predistortion
- to output -- correction
- to constant envelope input and envelope modulation

probable origin of the term “memory effects”
Obtaining distortion correction terms from math models:
How to do it page 2:

Based on an abused device, obtain a correction term to add:

- to input -- predistortion
- to output -- correction
- to constant envelope input and envelope modulation
Obtaining distortion correction terms from an abused device:
How to do it page 3:

Comparing output to input, obtain a correction term to add:

- to input -- feedback predistortion
- to output
- somewhere else

Real-time feedback requires cartesian frequency translation with bandwidth greater than modulation
Cartesian Feedback

- Input signal
- Distorting Amplifier
- Output signal
How to do it page 4:

When needed for modulation peaks:

add device area
raise supply voltage
change load impedance

Old techniques that can be mathematically equivalent to each other, and modern techniques
Linear Transmitters vs Linear Amplifiers

Analog predistortion is commercial success
  PA designer needs to work with System Designer

Digital predistortion is now routine
  PA designer needs to talk to Software Designer

Next-Generation systems will combine techniques
  High-volume cost driven systems will have different system architecture