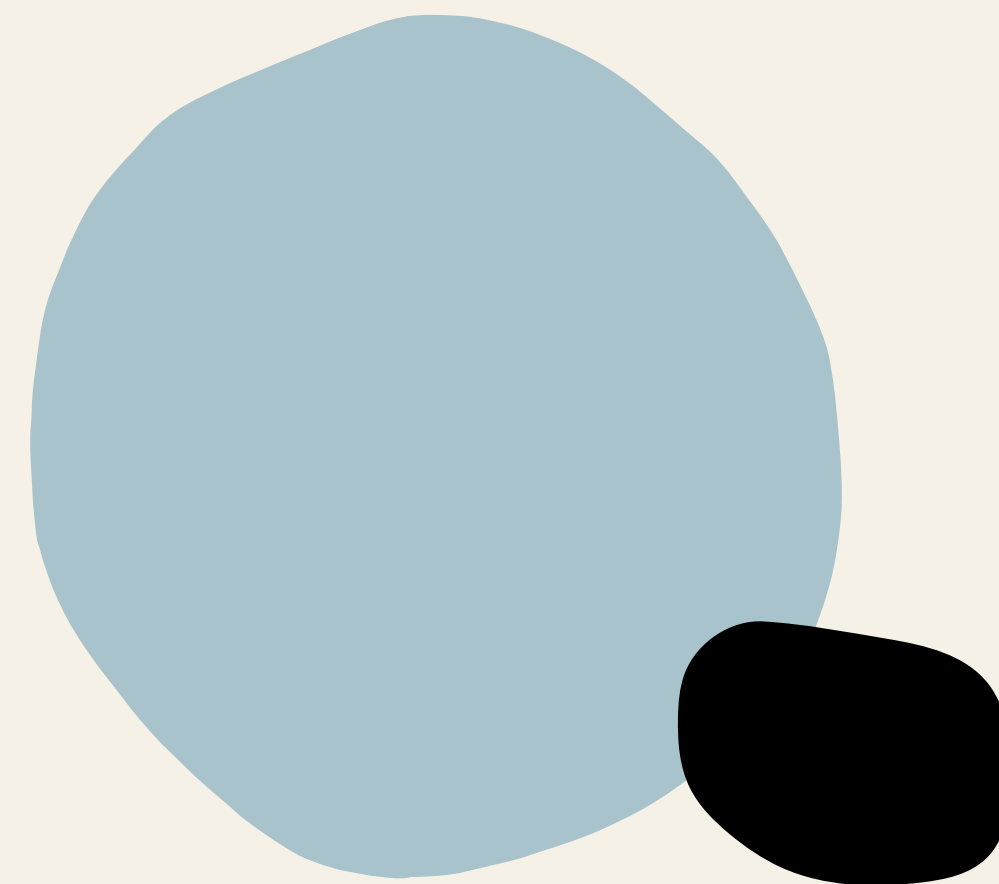


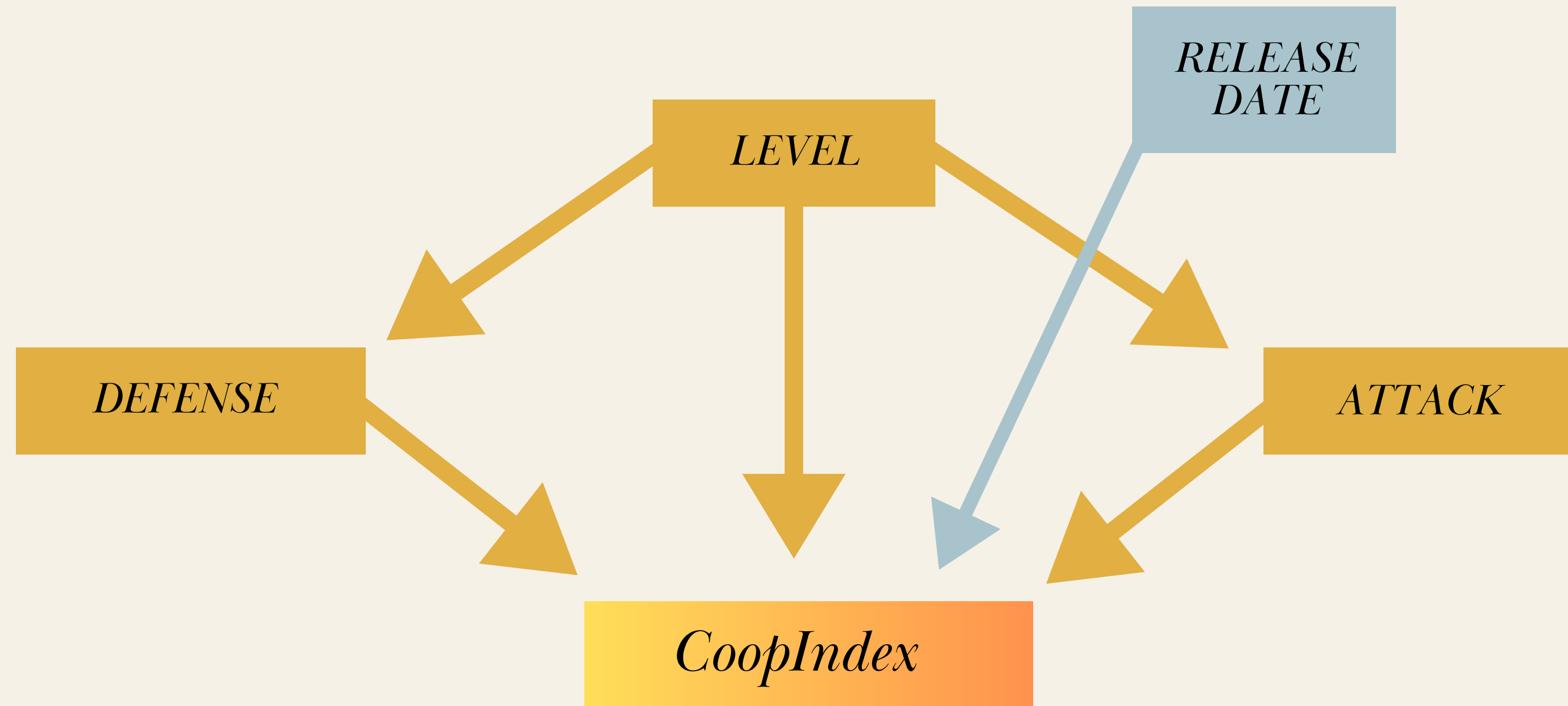
Are Yu-Gi-Oh cards
with the highest
combat stats more
individualistic?



Introduction



Introduction

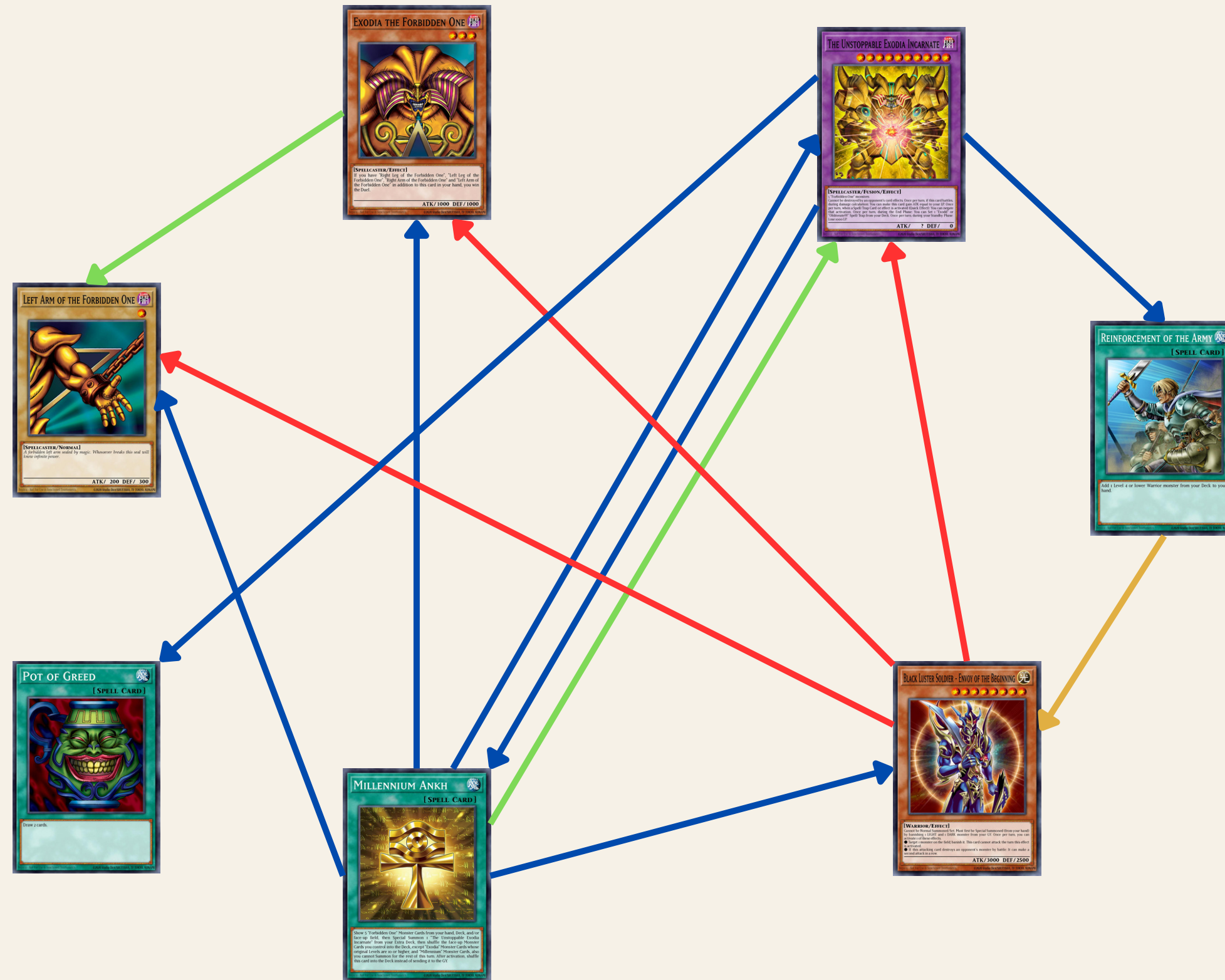


I - Data extraction (from YGOprodeck API)

| | name | desc | atk | defe | attribute | type | frametype | level |
|-------|-------------------------------|---|--------|--------|-----------|------------|-----------|-------|
| 0 | "A" Cell Breeding Device | During each of your Standby Phases, put 1 A-Co... | NaN | NaN | NaN | Continuous | spell | NaN |
| 1 | "A" Cell Incubator | Each time an A-Counter(s) is removed from play... | NaN | NaN | NaN | Continuous | spell | NaN |
| 2 | "A" Cell Recombination Device | Target 1 face-up monster on the field; send 1 ... | NaN | NaN | NaN | Quick-Play | spell | NaN |
| 3 | "A" Cell Scatter Burst | Select 1 face-up "Alien" monster you control. ... | NaN | NaN | NaN | Quick-Play | spell | NaN |
| 4 | "Case of K9" | When this card is activated: You can add 1 "K9... | NaN | NaN | NaN | Continuous | spell | NaN |
| ... | ... | ... | ... | ... | ... | ... | ... | ... |
| 13611 | ZW - Sleipnir Mail | You can target 1 "Utopia" monster you control;... | 1000.0 | 1000.0 | LIGHT | Beast | effect | 4.0 |
| 13612 | ZW - Sylphid Wing | You can only control 1 "ZW - Sylphid Wing". Yo... | 800.0 | 1600.0 | LIGHT | Beast | effect | 4.0 |
| 13613 | ZW - Tornado Bringer | You can target 1 "Utopia" monster you control;... | 1300.0 | 1800.0 | WIND | Dragon | effect | 5.0 |
| 13614 | ZW - Ultimate Shield | When this card is Normal or Special Summoned: ... | 0.0 | 2000.0 | EARTH | Aqua | effect | 4.0 |
| 13615 | ZW - Unicorn Spear | You can target 1 "Number C39: Utopia Ray" you ... | 1900.0 | 0.0 | LIGHT | Beast | effect | 4.0 |

13616 rows × 8 columns

II.1 - Build a graph to organize data



← Type Call →

← Attribute Call →

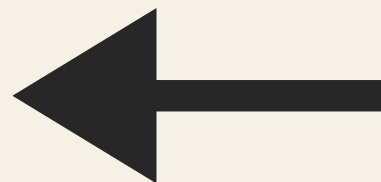
← Frametype Call →

← Name Call →

II.2 - Coop Index

$$coopIndex_i = (oNamecall_i + oTypecall_i + oAttributecall_i + oFrameTypecall_i - iNamecall_i - iTypecall_i - iAttributecall_i - iFrameTypecall_i) / 8$$

| coopIndex |
|-----------|
| -285.375 |
| -240.750 |
| -270.875 |
| -310.125 |
| 10.125 |
| ... |
| -305.250 |
| -305.250 |
| -309.250 |
| 46.750 |
| -305.125 |

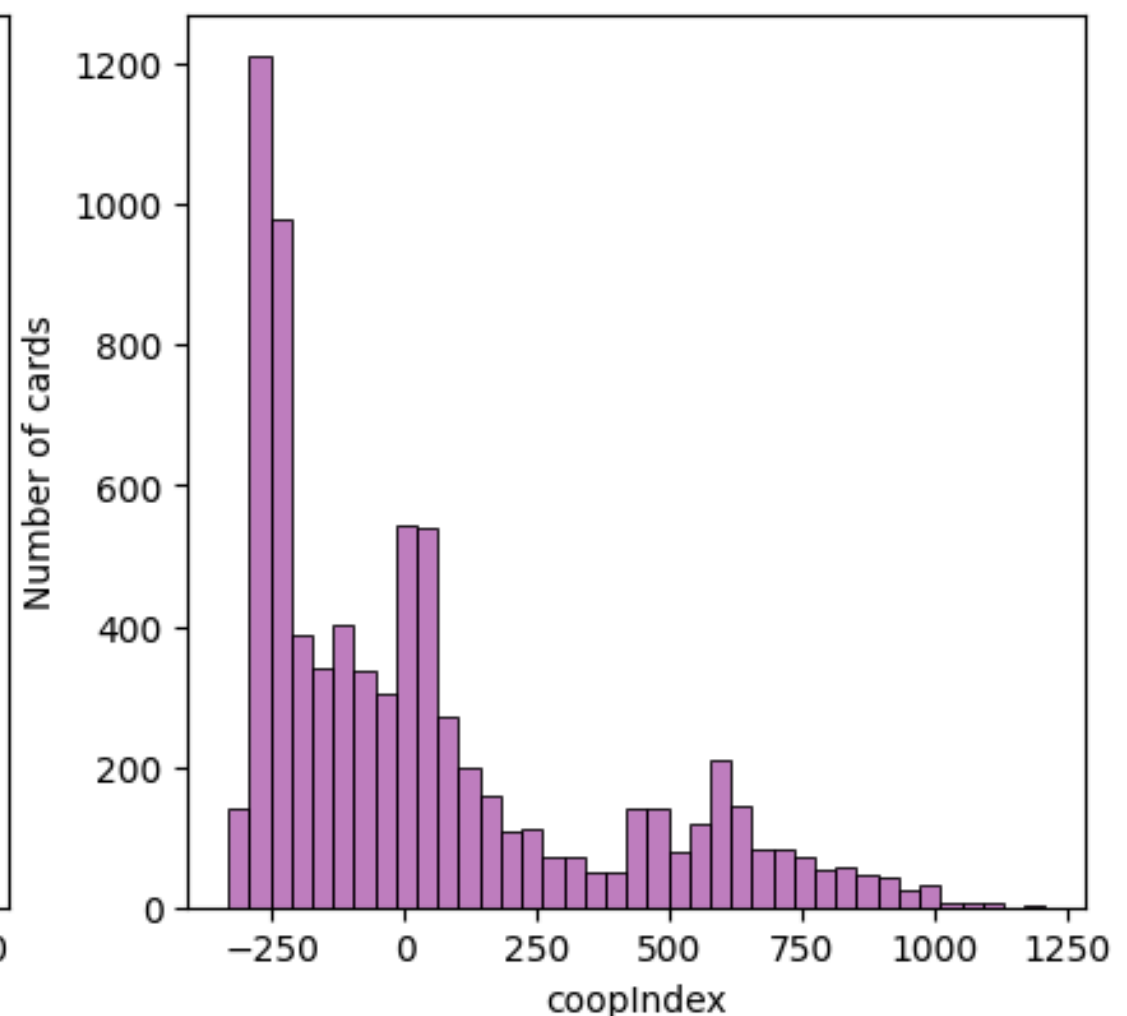
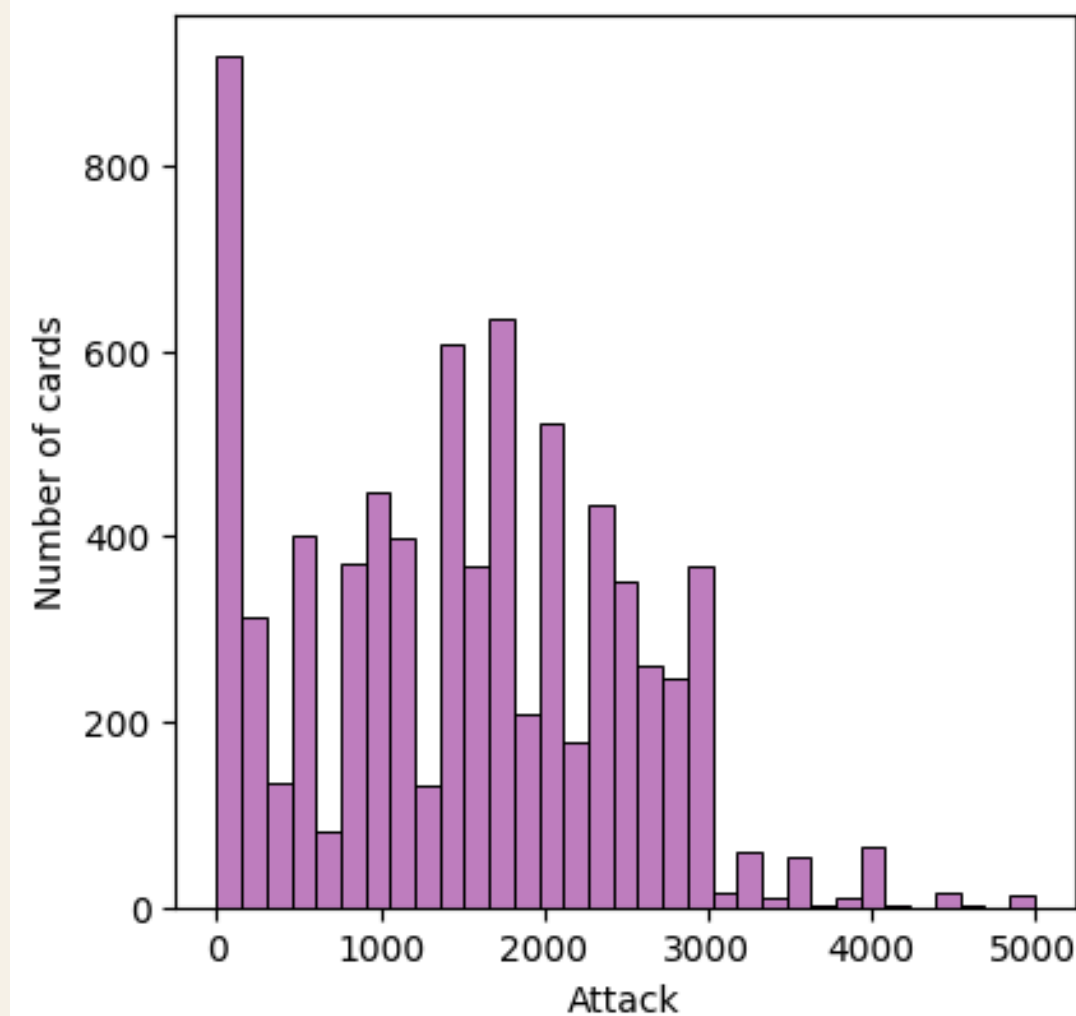
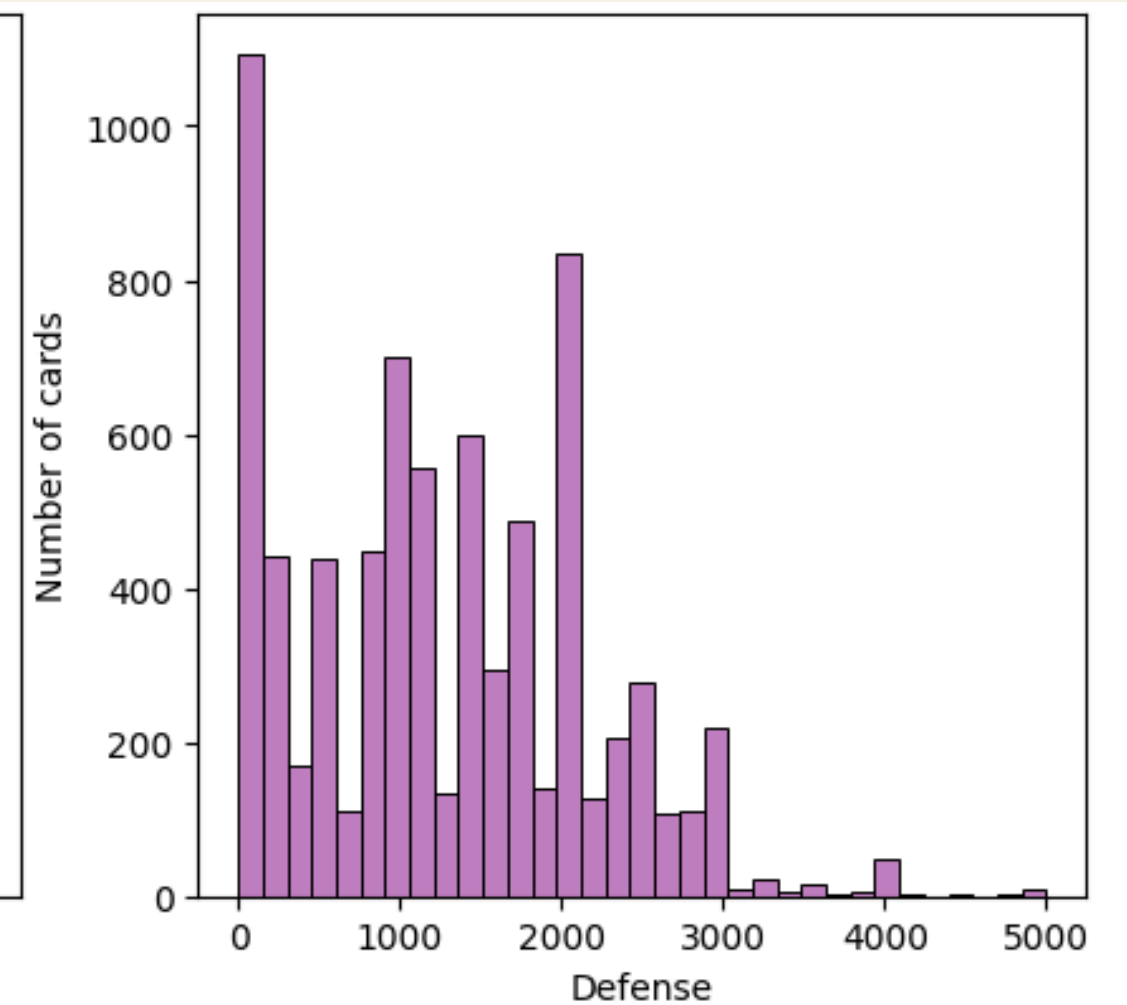
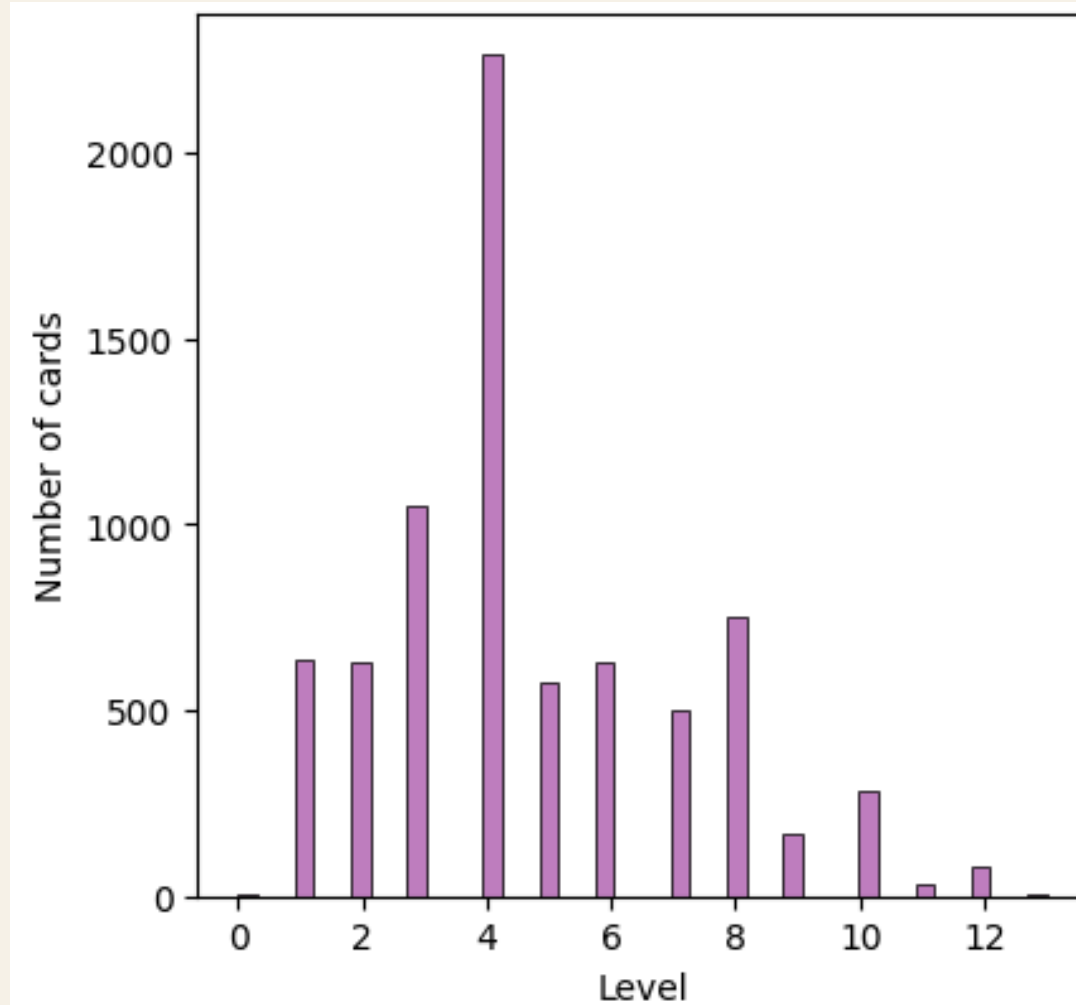


| innamecall | outnamecall | intypecall | outtypecall | inattributecall | outattributecall | inframetypecall | outframetypecall |
|------------|-------------|------------|-------------|-----------------|------------------|-----------------|------------------|
| 0 | 0 | 159 | 165 | 0 | 0 | 340 | 0 |
| 0 | 0 | 159 | 165 | 0 | 0 | 340 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 365 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 365 | 0 |
| 1 | 1 | 159 | 0 | 0 | 0 | 340 | 0 |
| ... | ... | ... | ... | ... | ... | ... | ... |
| 1 | 1 | 494 | 0 | 435 | 0 | 1513 | 0 |
| 1 | 1 | 494 | 0 | 435 | 0 | 1513 | 0 |
| 1 | 1 | 877 | 0 | 185 | 0 | 1412 | 0 |
| 1 | 1 | 88 | 2280 | 244 | 0 | 1574 | 0 |
| 1 | 2 | 494 | 0 | 435 | 0 | 1513 | 0 |

III - Data description

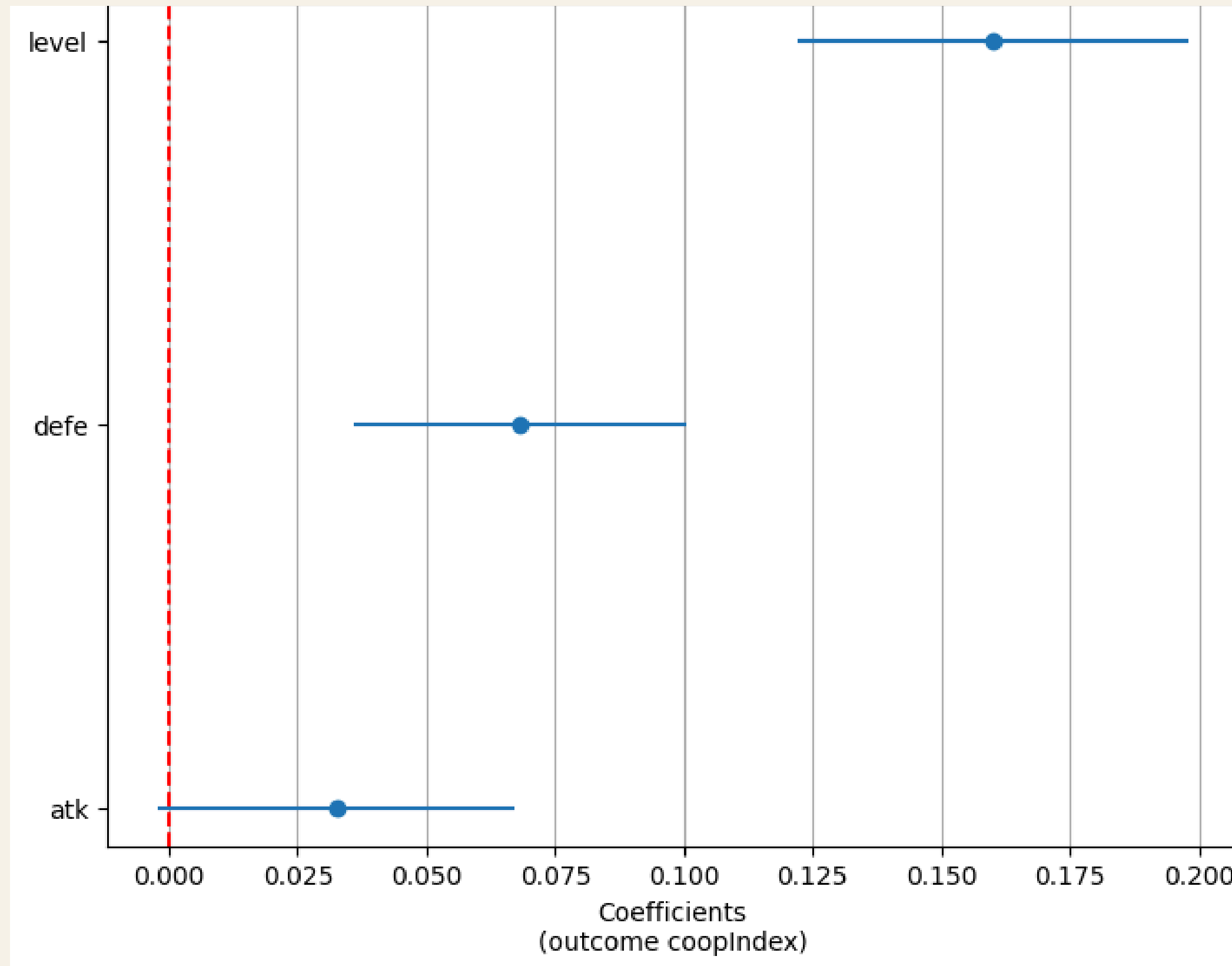
| | atk | defe | level | coopIndex |
|-------|--------|--------|-------|-----------|
| 10 | 500.0 | 1500.0 | 3.0 | -285.375 |
| 12 | 800.0 | 1200.0 | 3.0 | -240.750 |
| 16 | 300.0 | 200.0 | 2.0 | -270.875 |
| 18 | 500.0 | 300.0 | 2.0 | -310.125 |
| 26 | 1600.0 | 1600.0 | 4.0 | 10.125 |
| ... | ... | ... | ... | ... |
| 13611 | 1000.0 | 1000.0 | 4.0 | -305.250 |
| 13612 | 800.0 | 1600.0 | 4.0 | -305.250 |
| 13613 | 1300.0 | 1800.0 | 5.0 | -309.250 |
| 13614 | 0.0 | 2000.0 | 4.0 | 46.750 |
| 13615 | 1900.0 | 0.0 | 4.0 | -305.125 |

7613 rows × 4 columns



IV - Data Modeling

$$\text{coopIndex}_i = \beta_1 \text{Atk}_i + \beta_2 \text{Deffe}_i + \beta_3 \text{Level}_i + \epsilon_i$$



V- CONCLUSION

THANKS FOR YOUR ATTENTION!

