meaning cloud

Japanese food

A tailor made Sentiment Analysis

Mackerel, dashimaki egg, tofu in kaminabe

Half Linguist

Half Data Scientist

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Most important lesson learnt

after 30 years dedicated to Linguistics and Natural Language Processing

1. Languages are tricky!

2. Natural Language Processing is definitely hard!

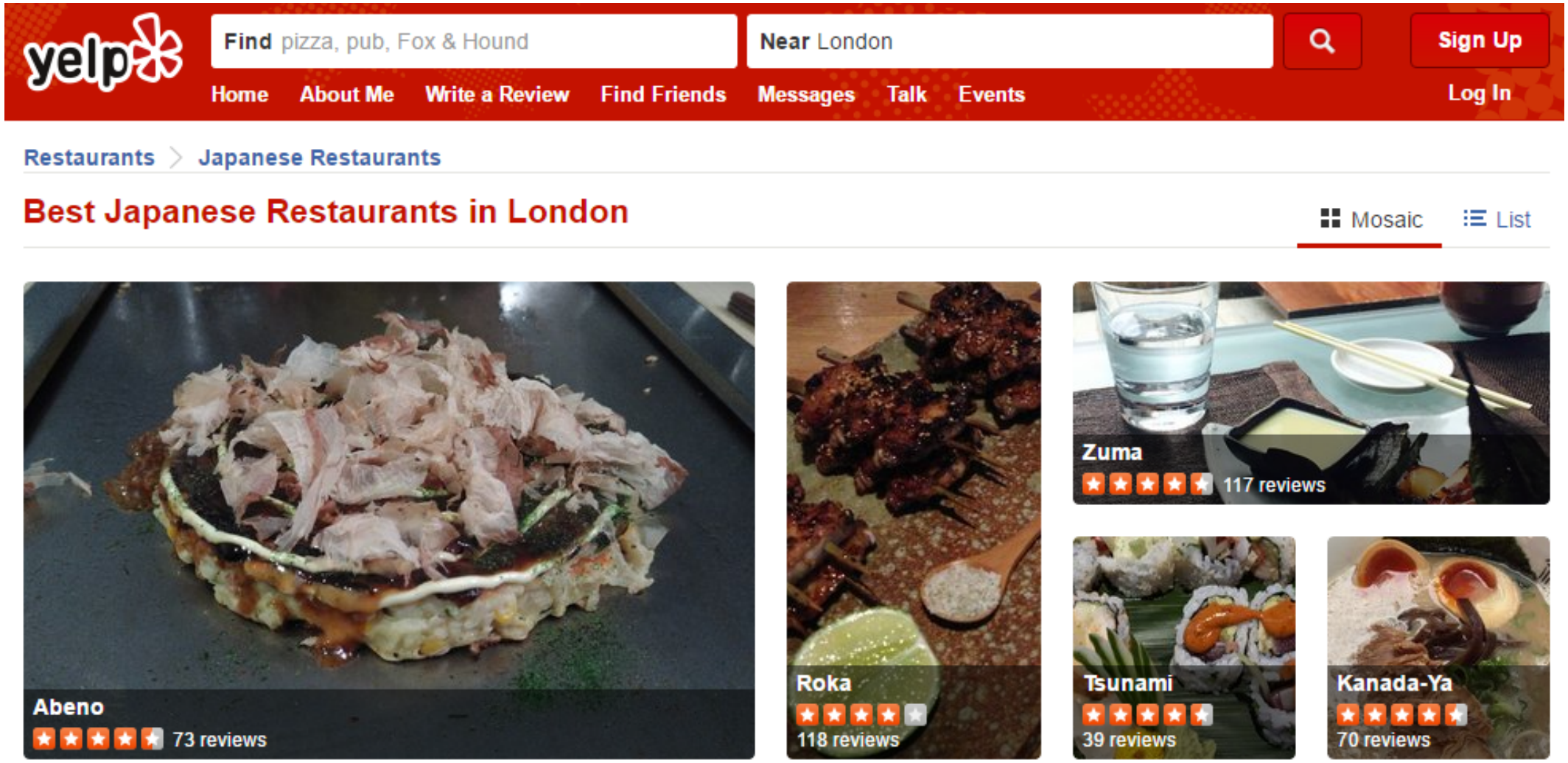
3. And sentiment Analysis…

damn hard!

4. Success = Technology + intelligent adaptation

When skilled linguists adapt the software to create a domain-specific features, these tools reach their maximum effect

Yelp Reviews of Japanese restaurants in London



Restaurant	Review
Shoryu Ramen	love ramen that much. The ramen is definitely better than some that Ive had before which is a good thing. I tried multiple types and they all had unique tastes to them that made them worthwhile.
Shoryu Ramen	Some appetizers were tried as well and they had varying degrees of success. The pork belly buns are good but certainly there are better. The brussel spout tempura...uhhhhh not
Shoryu Ramen	We ordered a Shoryu Ganso Tonkotsu, their signature dish with extra meat, and also some fried gyoza. We finished our ramen and also our beer, and waited long for the gyoza. So we had to ask, and it seems they had forgotten about this order. They apologized and made the food right away when we pointed that out, so it was not the end of the world. But normally the gyoza should have come before the ramen as gyoza is
Shoryu Ramen	We ordered the gyoza and pork and prawn buns to share. Then I ordered the curry ramen
Shoryu Ramen	The sides came first which I was glad about being staring. The gyoza was freshly cooked and mouth-wateringly good. The pieces of meat inside were chunky and they just went
Shoryu Ramen	Now, to the buns, it was the first time I'd ever had a 'bun' and I absolutely LOVED them. Whatever that weird type foldy bread is, it's amazing and the toppings were superb. I
Shoryu Ramen	Next, the ramen. Gosh it was good - garlic, curried soupy goodness with bites sized pieces of friend chicken breast, veg, seaweed and egg floating within. Just perfection. The curry had an almost katsu taste to it which I enjoyed and with the extra clove of garlic, I was in a ramen dream. It was slightly salty but I am a fan of salt so no complaints here!

MonkeyLearn

MetaMind

AlchemyAPI

Aylien

Idol

Datumbox

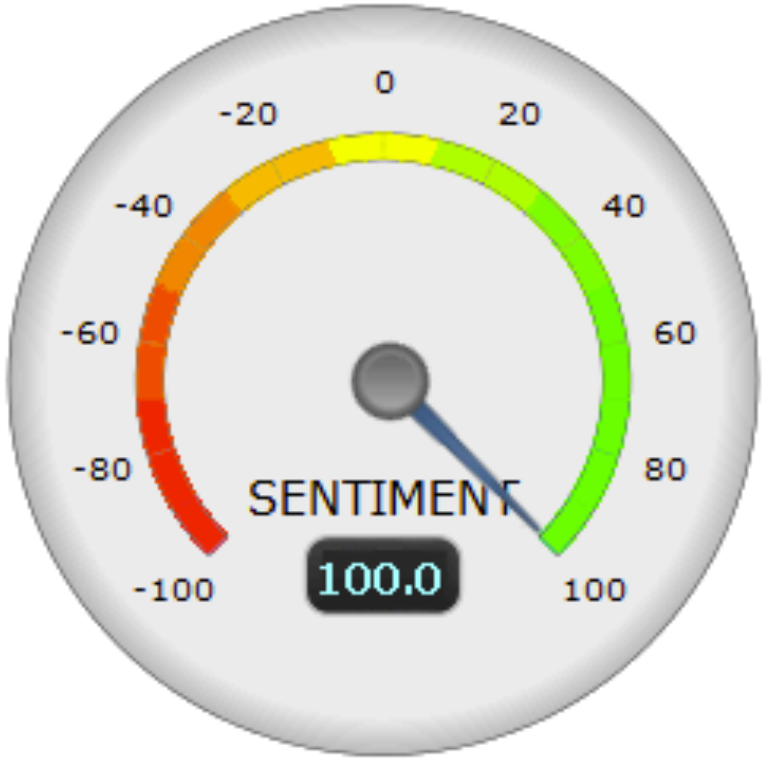
MeaningCloud

Plato is my friend, but truth is a better friend

“Food is relatively fine but definitely not worth the hassle you have to put up with to get it. We were surrounded by incredibly rowdy customers who were shouting and screaming in a basement of a dirty and outdated restaurant with terrible decor. The toilet was filthy and there was only one for a man and a woman. So be prepared to queue”

If you're thinking of trying this restaurant. Just NO. Terrible service. Food is relatively fine but definitely not worth the hassle you have to put up with to get it. We were surrounded by incredibly rowdy customers who were shouting and screaming in a basement of a dirty and outdated restaurant with terrible decor. The toilet was filthy and there was only one for a man and a woman. So be prepared to queue.

Analyze Text! clear text



Interpretation: This text has a sentiment score of 100.0. This means that the overall sentiment or tone of this text is very positive / enthusiastic.

Limitations of sentiment analysis

For Japanese restaurants we need to know opinions about

- Dishes: sushi, sashimi, ramen, gyoza,
- Quality characteristics: price, atmosphere, etc.

Sentiment analysis in MeaningCloud

- Identify sentiment (positive/negative/neutral or no polarity)
  - Document-level (overall)
  - Sentence-level
  - Associated to mentioned entities/concepts/attributes

The ramen is good, but the restaurant is horrible

“Food is relatively fine but definitely not worth the hassle you have to put up with to get it. We were surrounded by incredibly rowdy customers who were shouting and screaming in a basement of a dirty and outdated restaurant with terrible decor. The toilet was filthy and there was only one for a man and a woman. So be prepared to queue”

This document is: **positive (+0.299**

Extracted themes	Sentiment
Terrible service	**-0.75**
relatively fine	**+0.88**
rowdy customers	**+0.50**
outdated restaurant	**+0.31**
terrible decor	**-0.75**

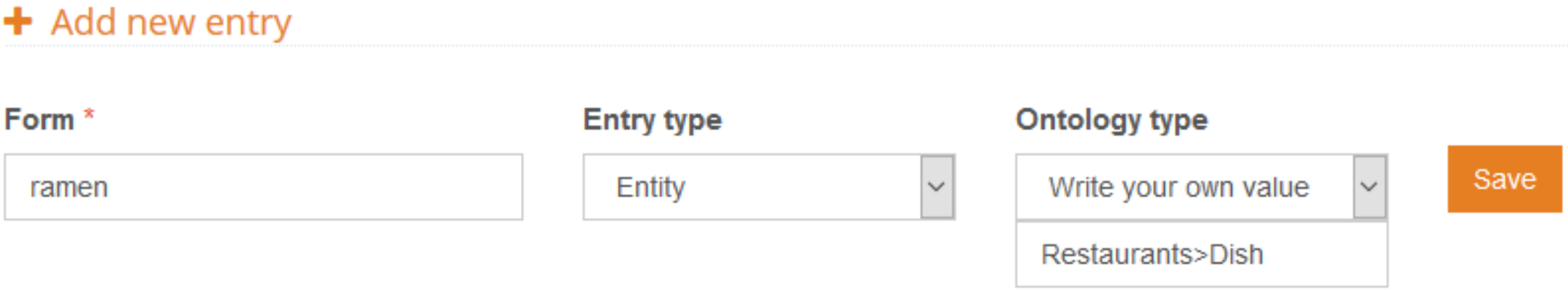
"Food is relatively fine but definitely not worth the hassle you have to put up with to get it. We were surrounded by incredibly rowdy customers who were shouting and screaming in a basement of a dirty and outdated restaurant with terrible decor. The toilet was filthy and there was only one for a man and a woman. So be prepared to queue"

toilet	concept	3	Top>Location>Facility	N+
basement	concept	4	Top>Location>Facility	N
restaurant	concept	5	Top>Location>Facility	N
woman	concept	6	Top>Person	NONE
food	concept	7	Top>Product>Food	P
service	concept	8	Top>Product>ProfessionalService	N+
customer	concept	9	Top>Organization	N

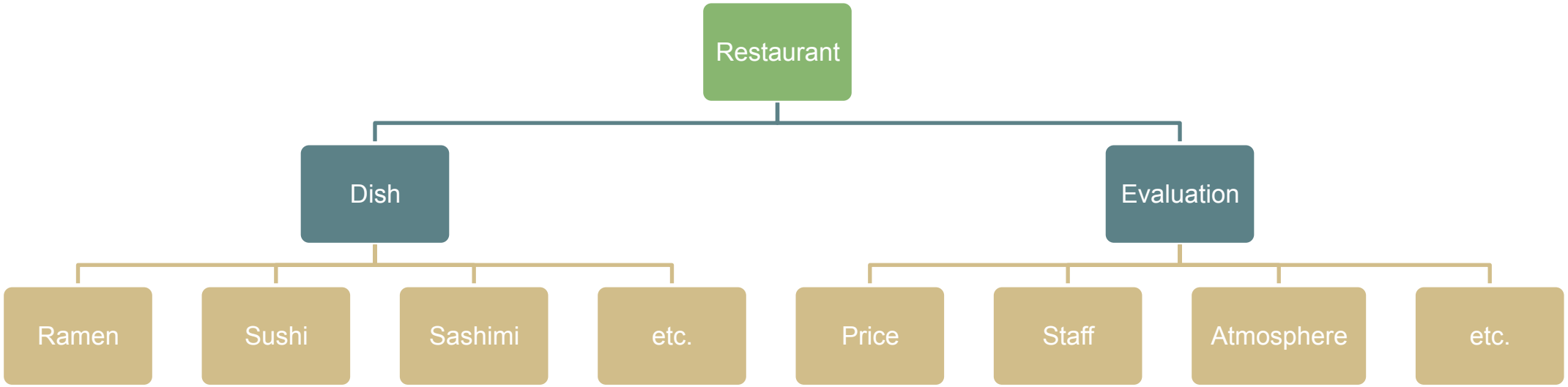
“We ordered the gyoza and pork and prawn buns to share. Then I ordered the curry ramen in the others section”

bun	Top>Product>Food>CookedPlate	P
shrimp	Top>LivingThing>Animal>Invertebrate	P

1. Personal dictionary of entities and concepts

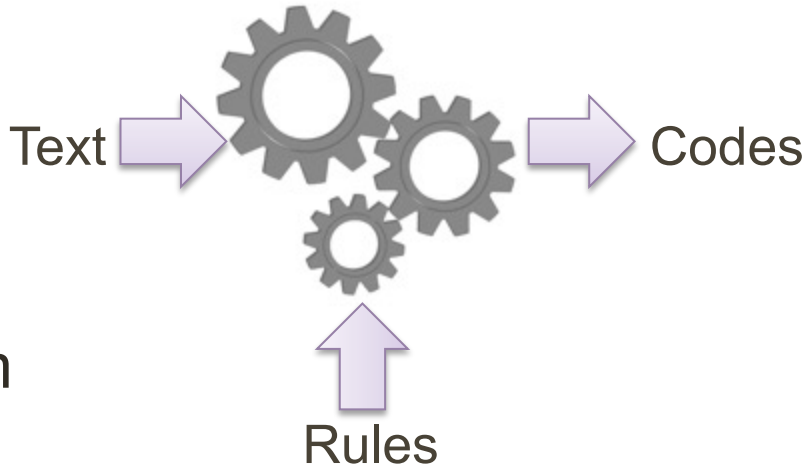


Personal dictionary of entities and concepts



2. Rule Engine and Sentiment Analysis

- Beyond rules based on text strings
  - Applies **morphosyntactic analysis + ontology**



- Feature highlights
  - Linguistic information of terms:
    - Morphosyntactic: function, lemma/form
    - Semantic: type, theme, geography
  - Expressions: literal, regular, proximity
  - Logical operators: AND, OR, NOT

Personal sentiment model

- **Polarity of expressions**

  to share POLARITY = NONE

- **Polarity depending on context**

  portion|slice

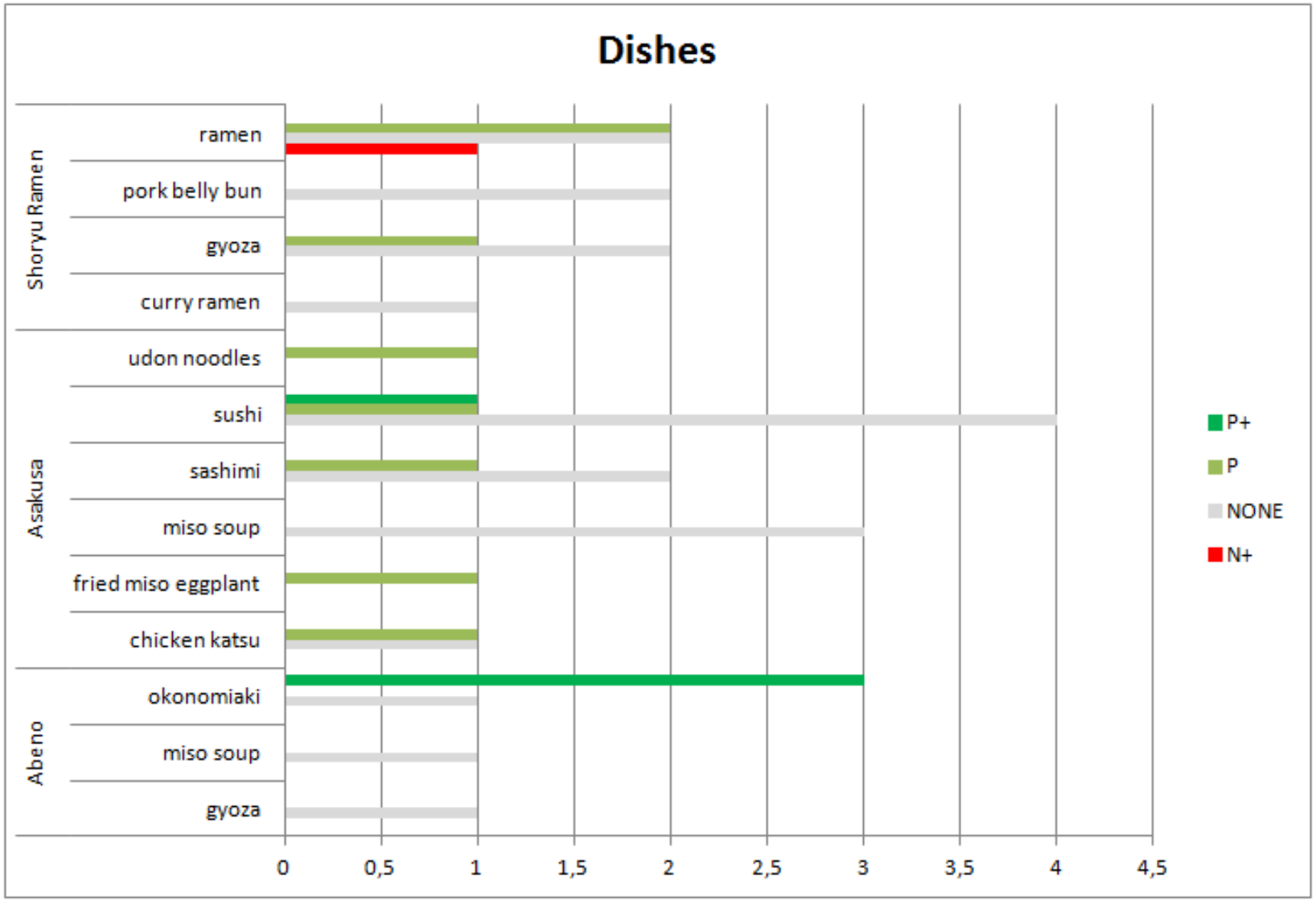
  TOGETHER IN THE SAME SENTENCE WITH small|tiny|meager POLARITY = NEGATIVE

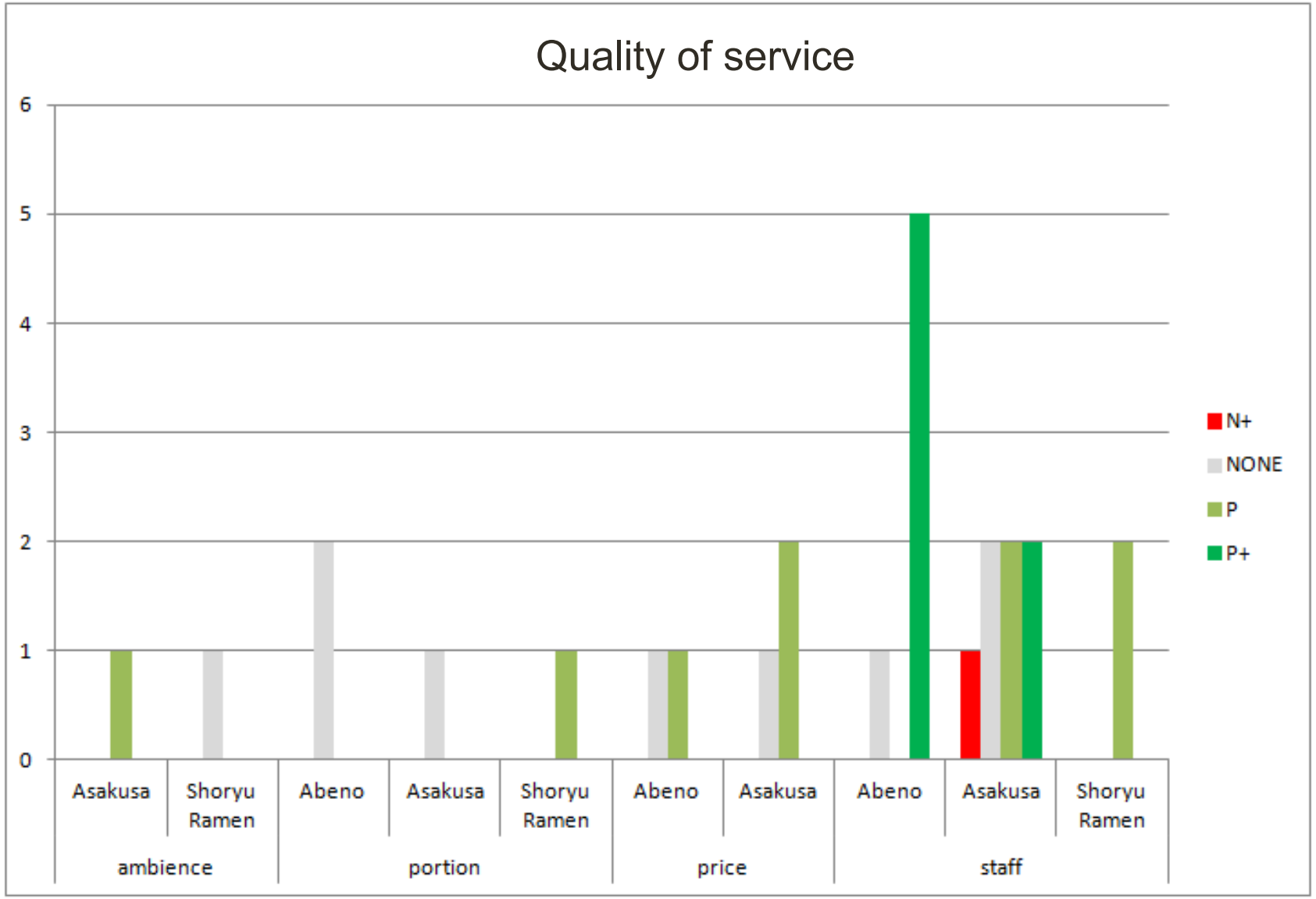
- **Polarity depending on context and function**

  service

  TOGETHER IN THE SAME SENTENCE WITH slow

  AND ACTING AS <noun> POLARITY = NEGATIVE


Dishes
Shoryu Ramen
ramen
pork belly bun
gyoza
curry ramen
Asakusa
udon noodles
sushi
sashimi
miso soup
fried miso eggplant
chicken katsu
Abeno
okonomiaki
miso soup
gyoza
0
0,5
1
1,5
2
2,5
3
3,5
4
4,5
P+
P
NONE
N+


Quality of service
6
5
4
3
2
1
0
N+
NONE
P
P+
Asakusa
Shoryu Ramen
Abeno
Asakusa
Shoryu Ramen
Abeno
Asakusa
Abeno
Asakusa
Shoryu Ramen
ambience
portion
price
staff

Conclusion

The highest-quality sentiment analysis…

- **Attribute-level** analysis
- Personal **dictionaries**, to **focus** the analysis on aspects of interest
- **Personal sentiment models** to **adjust** polarity depending on the domain

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