

Impressions2Font: Generating Fonts by Specifying Impressions

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Purpose

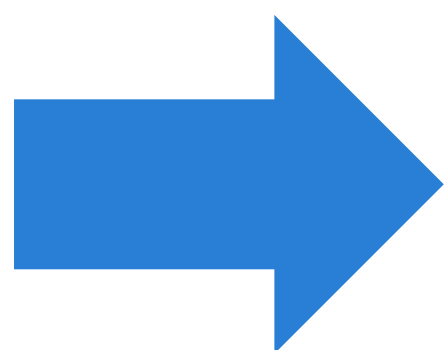
- We propose **Impressions2Font**, which is constrained GAN model for generating fonts with specific impressions.
- We realize the robustness to inconsistent and rare impression words by a special constraint framework.

impression word

elegant

letter class

'R'



MyFonts dataset[Chen++, ICCV2019]

- Impression words are tagged by **experts as well as amateurs**.

18815 fonts

A B C D E F G H

26 classes
(from A to Z)

1824 tags

beautiful
elegant
stylish

impression word
(multi label)

Difficulties

- Impressions are subjective and thus inconsistent.

A B C

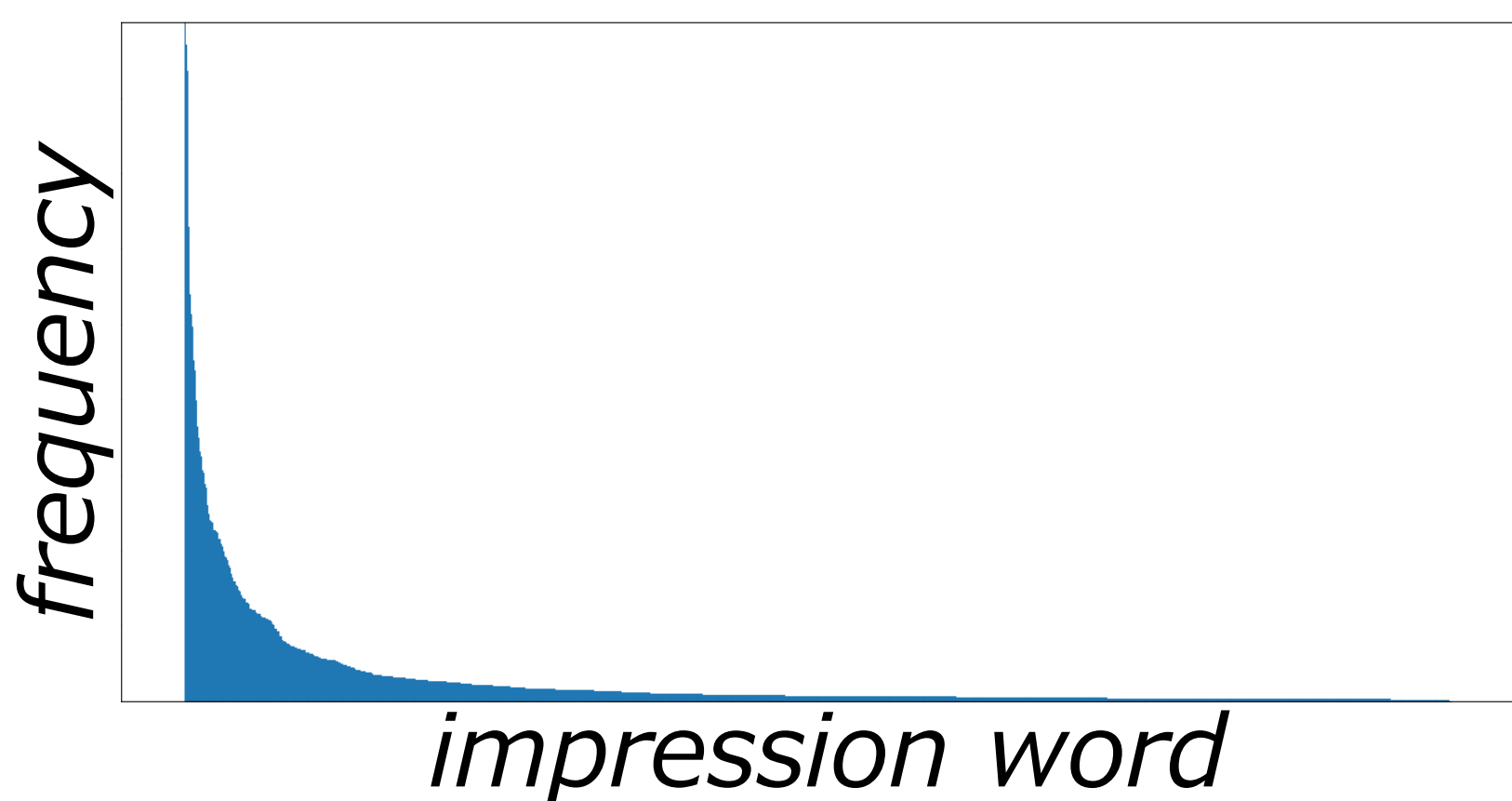
retro

computer

modern

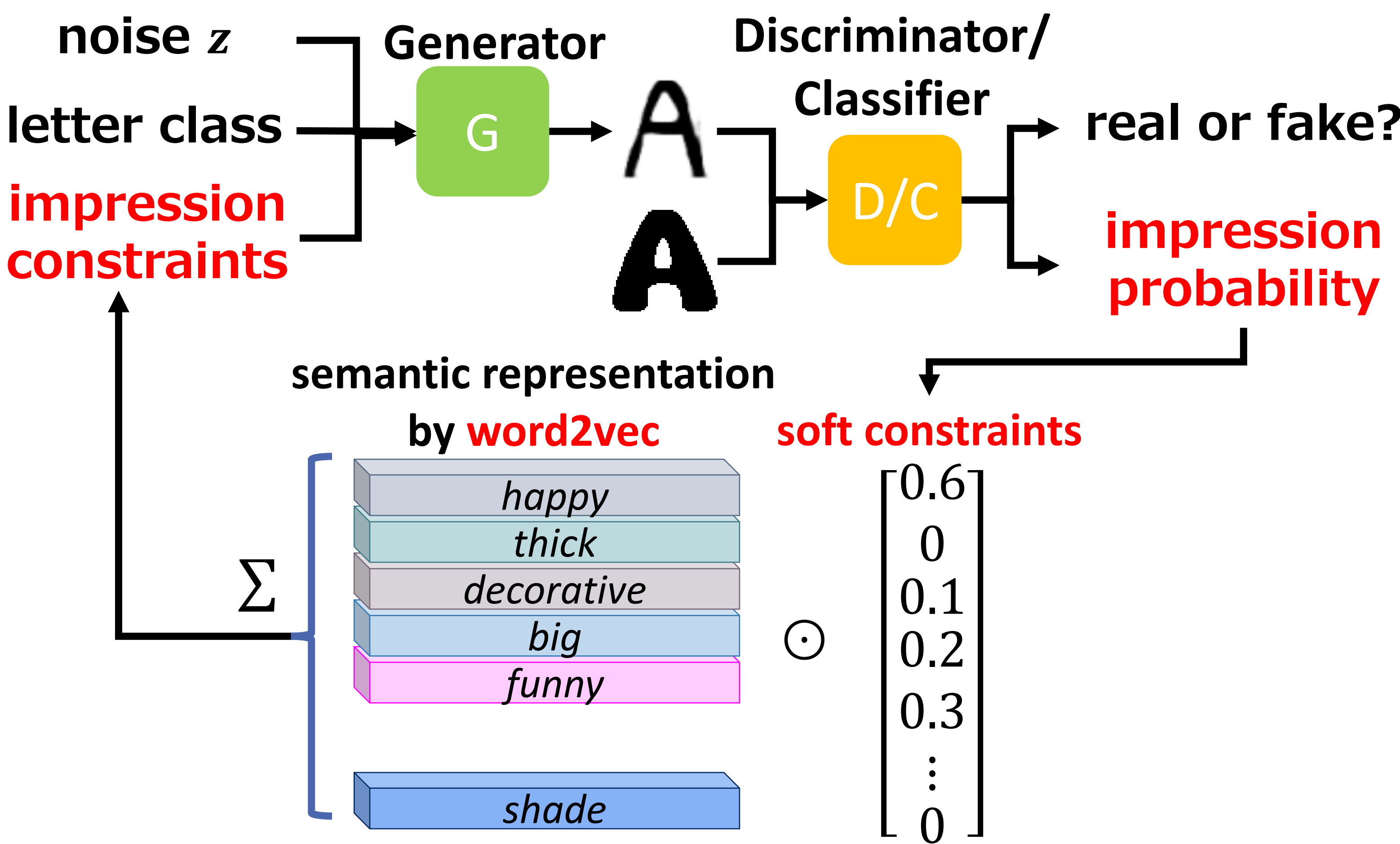
Opposite meaning!!

- Many rare impressions.



serif : 6065 times
decorative: 4355 times
:
:
:
clover : 5 times
apple: 5 times

Impressions2Font

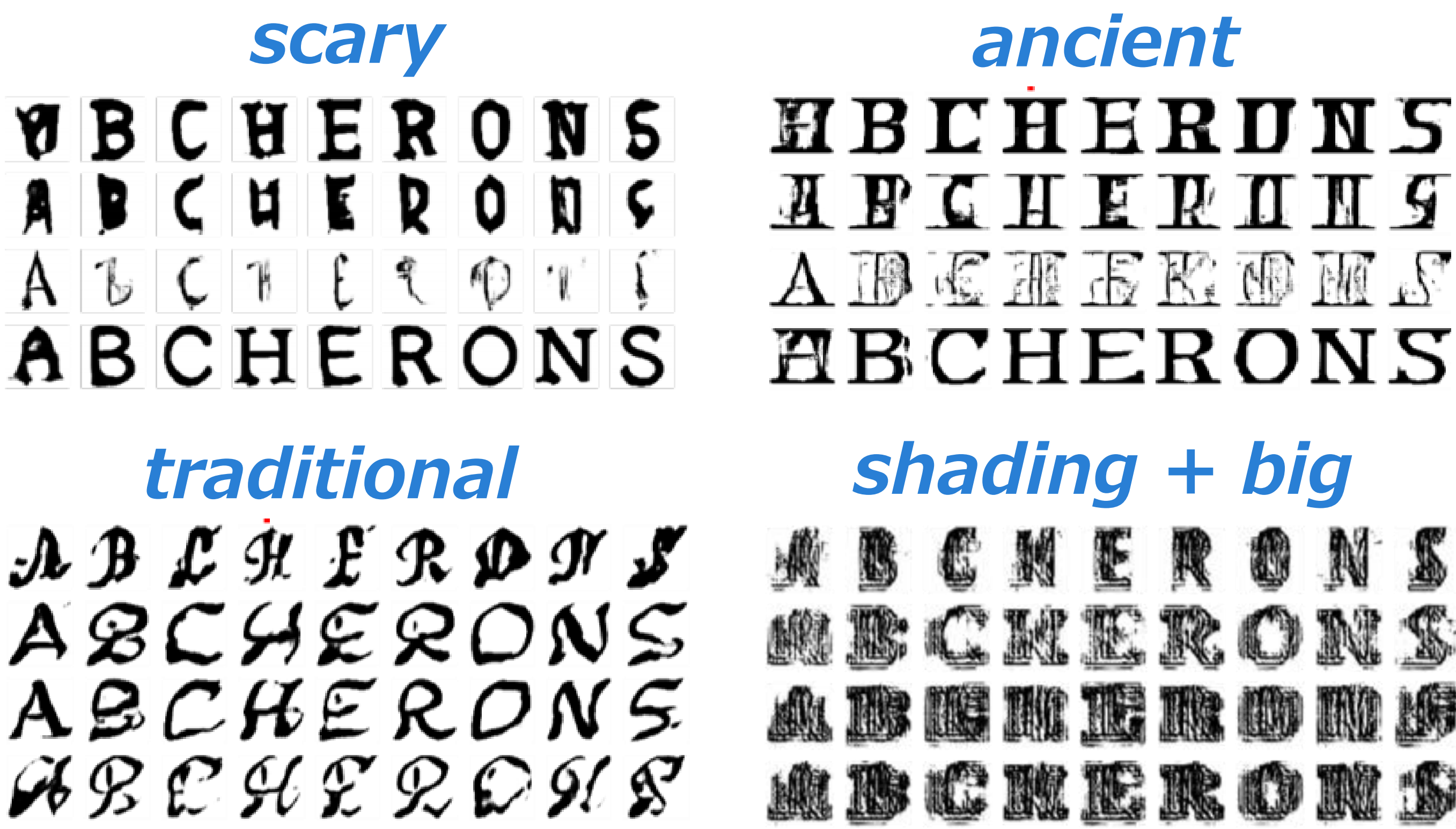


Why robust??

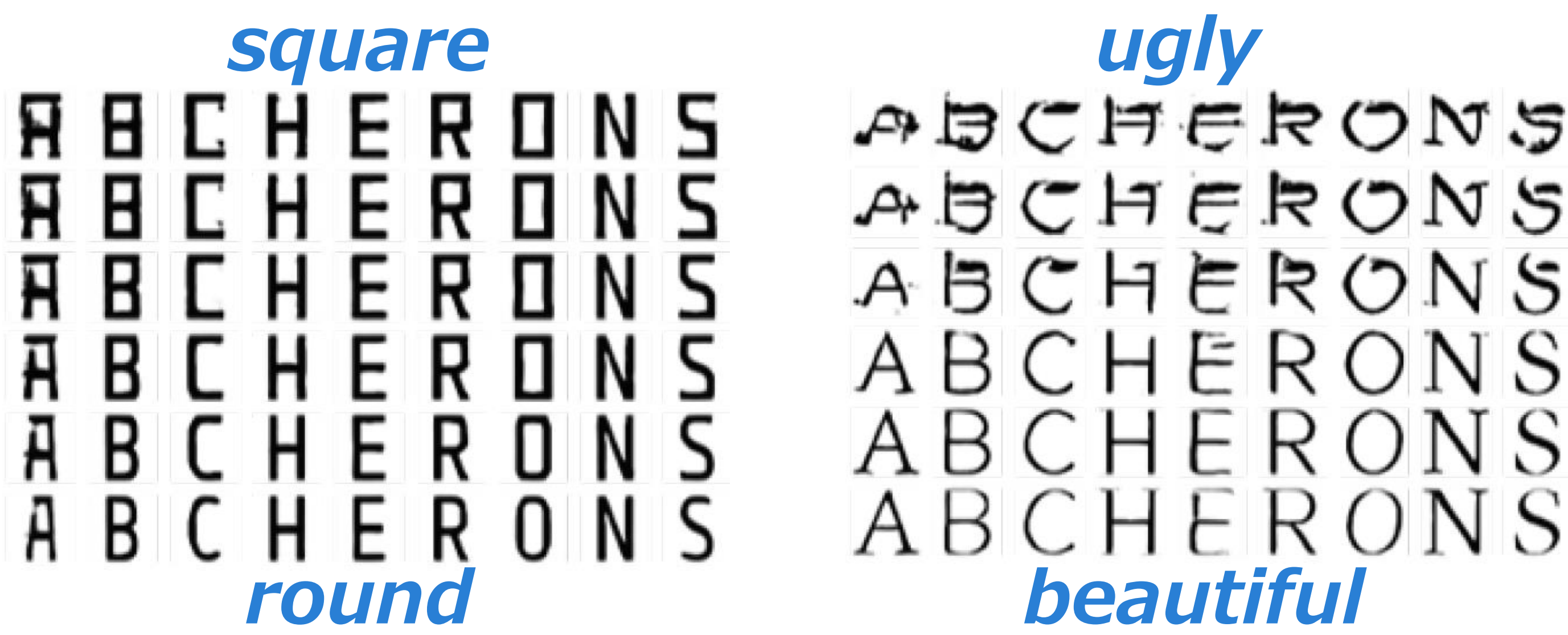
1. Soft constraints for inconsistent labels
2. Major impressions will support similar rare impressions.

Generation results

- Font Generation from specific impression.



- Interpolation between two impressions.



Future work

- Improving the legibility by introducing new loss functions.
- Dealing with **missing labels**.
➡ Impression X is not attached to the font $F \neq F$ does not have X.