Fine-grained Sexism Detection in Italian Newspapers

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Abstract

In recent years, tasks revolving around hate speech detection have experienced a growing interest in the field of Natural Language Processing. Two main trends stand out in the context of sexism recognition: the focus on overt forms of sexism such as misogyny on social media and tackling the problem as a text classification task. The main objective of this work is to introduce a new approach to tackle sexism recognition as a sequence labelling task, operating on the token level rather than the document level. To achieve this goal, we introduce (i) the FGSDI (Fine-Grained Sexism Detection in Italian) corpus, containing Italian newspaper articles annotated with fine-grained linguistic markers of sexism, and (ii) a two-step pipeline that sequentially performs sexism detection on the sentence level and sexism classification on the token one. Our primary findings include that (i) tackling the task of sexism recognition as a sequence labelling task is possible, however, a large amount of labelled data is needed; (ii) leveraging few-shot learning for sexism detection proves to be an effective solution in scenarios where only a limited amount of data is available; (iii) the proposed pipeline approach allows for better results compared to the baseline by doubling the overall precision and achieving a better F1-score.

Keywords

Natural Language Processing, Sexism recognition, Token classification, Hate-speech detection, Transformers

1. Introduction

According to the Sapir-Whorf hypothesis [1] [2], language shapes the way we think and interact with the world. It becomes therefore crucial to analyse our usage of linguistic expressions to reveal the intricate dynamics of societal norms, power structures, and cultural values embedded within our belief system. In this context, language can also become a vehicle for different forms of bias and discrimination, including sexism. Sexism in language encompasses a variety of phenomena, ranging from more subtle ones, nested within the grammar and semantics choices we make when talking about women, to more overt instances of misogyny, characterized by aggressiveness and violence against individuals based on their gender identity.

In recent years, sexism and misogyny detection and classification have witnessed a growing interest in Natural Language Processing (NLP), especially after the advent of transformers models [3], which unravelled new possibilities in nearly every NLP task. However, these efforts have mainly focused on misogyny and hate speech in general, tackled as text classification tasks on the document level, and specifically within the context of social media platforms such as Twitter and Facebook.

The main contributions of this paper are as follows. First, we concentrate on specific linguistic markers of sexism introducing more fine-grained classes than those usually considered in the sexism detection and classification tasks. Inspired by linguistic work by Alma Sabatini [4], we propose a new annotation scheme and corpus for fine-grained sexism detection, resulting in the FGSDI (Fine-Grained Sexism Detection in Italian) corpus of Italian newspaper articles with the annotation guidelines released in appendix A. Second, we address the recognition of linguistic markers of sexism as a token-level classification task, assigning a label to each token according to the fine-grained classes introduced before. This constitutes an innovation in that, to the best of our knowledge, no other work—in Italian or other languages—has tackled this task at such a granularity.

In particular, we compare two different approaches. The first one, which we used as baseline, consists of fine-tuning a RoBERTa [5] model on the token classification task using whole texts as input. The second, novel one is a two-step pipeline approach inspired by [6] which performs sexism detection and classification subsequently. The sexism detection task is tackled as binary classification applied at the sentence level. Sentences classified as potentially containing linguistic markers of sexism will then undergo the second step of the pipeline, which again involves classification on the token level.[1]

[1]Code available at: https://github.com/fede-m/Fine-grained-sexism-detection-in-Italian-Newspapers

2. Background

2.1. Sexism in language

The interest in the role of language in reflecting and perpetuating societal gender inequalities emerged during the so-called *second-wave feminism*. In Italy, the main contributor was Alma Sabatini, whose works focused on analysing the language used in mass media and educational publishing, identifying discriminatory patterns [4], and suggesting alternative non-sexist forms [7].

This analysis is particularly relevant since Italian belongs to the class of grammatical gender languages, which assign gender to every noun and decline articles, pronouns and adjectives accordingly [8]. Although having linguistic markers for gender does not make a language automatically sexist [8], it does make the language more susceptible to sexist phenomena [9] and it seems to exist a positive correlation between countries speaking grammatical gender languages and lower levels of gender equality [10].

We will use [4] as the foundation of our research, enriching it with other relevant contributions ([11] [12] [13] [14]) to make the analysis more comprehensive, provide insights on specific phenomena, and consider potential social changes that occurred in the last 20 years.

2.2. Automatic sexism recognition

Automatically assessing the presence of sexism and hate speech in a text has multiple practical applications, from helping reduce gender bias and promoting gender fairness in language to content moderation in social media. Most relevant works on this topic focus on sexism detection and categorization tackled as classification tasks, which assess whether a sentence exhibits sexist content and which type of sexism it contains. As shown by [6], the most significant shift in this field was the advent of transformers [3] and the development of transfer learning techniques [15].

Regarding the Italian language, the main focus so far has been on misogyny and hate speech detection. In particular, [16] and [17] studied misogyny and aggressiveness in Twitter posts. Although not leveraging classification techniques, we want to highlight the works of [18] and [19] since they focus on detecting single linguistic phenomena in text relevant to the scope of this work.

Notably, two main trends stand out in the reviewed literature. The first is the focus on more explicit forms of sexism such as misogyny in the framework of social media. The second is tackling the detection and categorization of sexism as a text classification task focusing on the document level instead of the token one. These also represent the main differences introduced in the approach adopted by the current work.

3. FGSDI - Corpus

3.1. Dataset

We concentrated our analysis on newspaper articles, which represent an underexplored text type in automatic sexism recognition and provide the opportunity to investigate the presence of linguistic sexism in a more formal context (and covert style) than social media. In particular, we focused on articles from three Italian newspapers, namely *La Repubblica*, *La Stampa*, and *Il Corriere della Sera*. We chose these newspapers based on their popularity in Italy,[2] availability of articles online, and the broad focus in the thematic areas they cover.

After exploring different datasets, we settled on Webz.io, which contains web-scraped articles from many different Italian newspapers, including the ones mentioned above. The articles are all from the October 2015 dump,[3] available in JSONL format, and include plenty of additional metadata for each article, such as news category, author, and comments.

Leveraging the metadata, we chose common news categories for all selected newspapers, following two main criteria. The first was the number of available articles and whether the category was present in all newspapers, while the second concerned the coverage and presence of women in those articles. The final selected categories were *Cronaca (News)*, *Politics*, and *General News*. We then selected 50 articles for each newspaper and category combination (or all the available ones in case they had less than 50 articles) obtaining a final dataset of 469 articles.

3.2. Label Definition and Annotation

Since we decided to approach the problem of recognizing different linguistic markers of sexism as a sequence labelling task, the first step was to define the labels to include in our analysis and annotate them.

3.2.1. Label Definition

As a baseline, we referred to the work of Alma Sabatini [4] which provides a comprehensive list and analysis of linguistic markers of sexism in the Italian language. However, there is not a one-to-one correspondence between our labels and Sabatini's. According to the frequency and non-ambiguity of a specific linguistic phenomenon in the corpus, we decided for each label whether to keep it the same, divide it into more fine-grained sub-categories describing more specific phenomena, or combine multiple

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[2]DMS Data is published by the ADS (Accertamenti Diffusione Stampa), a company based in Milan which publishes certified data on the circulation of Italian newspapers. The mentioned data can be found at the following link: https://www.adsnotizie.it/Dati/DMS_ Page
[3]https://webz.io/free-datasets/italian-news-articles/

phenomena together. This process resulted in the following 14 final labels. We provide here a brief description for each label and refer to appendix A for more detailed annotation guidelines with examples.

1. **Generic masculine**: use of masculine as a "neutral" form to refer to people of all genders. It is the broadest class we considered in the analysis and encompasses a variety of different phenomena.

2. **Usage of feminine for stereotypically female professions**: sub-category of *Generic Masculine* to identify cases where the "rule" of generic masculine was not applied for professions and roles stereotypically occupied by women.

3. **Masculine of professions**: usage of the masculine form for professional titles (especially high-status ones) to refer to specific female referents.

4. **Usage of "-essa" suffix**: sub-category of *Masculine of professions*. The suffix is considered as bearing a negative connotation when used to create the feminine form of a profession (see [20], [21] and [22]).

5. **Asymmetric usage of names, surnames, and titles**: cases where female referents are referred to by their first name only.

6. **Feminine article before surname**: sub-category of *Asymmetric usage of names, surnames, and titles*, it refers to the usage of the article *la* in front of the surname of female referents.

7. **Asymmetric usage of adjectives**: adjectives belonging to three semantic areas that perpetuate the gender bias of seeing women as small, silent, and uniquely identified through physical characteristics.

8. **Asymmetric usage of substantive**: substantives (usually belonging to areas such as sexuality, physical appearance, and marital status) for which only the feminine form exists, and substantives for which both forms exist but only the feminine one bears a negative connotation.

9. **Asymmetric usage of verbs**: verbs belonging to semantic areas stereotypically associated with women and asymmetries in the roles assumed by female and male actors in the usage of agency verbs.

10. **Diminutives**: co-occurrence of diminutives and female referents.

11. **Asymmetric usage of tropes and tone**: metaphors, metonymy and synecdoche that reinforce stereotypical representations of women. For the tone, co-occurrence of the usage of scare quotes and female referents.

12. **Identification through man**: instances where women are presented as *wife/sister/daughter* of a male referent.

13. **Identification through gender/role**: instances of women presented as *mother of* somebody.

14. **Usage of physical characteristics to describe and present women**: instances where women are depicted through their physical appearance that were not included in previous categories.

3.2.2. Annotation

We annotated the articles using the *doccano*[4] annotation tool, which provides an intuitive and easy-to-use interface for different annotation tasks.

In total, we annotated 469 newspaper articles, which we split into 5 folds to apply cross-validation and obtain more robust evaluation results. Since each document could contain multiple labels and in order to maintain the labels' distribution consistent across the folds, we used group stratified k-fold, with k = 5 to keep the 20-80 ratio between test and training sets.

In each article, we highlighted spans of text that contained instances of linguistic markers of sexism following the annotation guidelines in appendix A. We allowed the annotation of multiple and different labels in single documents and single sentences within them. However, we decided not to allow overlapping spans to achieve better and unambiguous results. For the label annotation, we used the BIO (B:begin, I:Inside, O:Outside) format.

The annotation process resulted in the label distribution illustrated in appendix B. Notably, the distribution of labels across categories is not well-balanced, with labels *Generic masculine*, *Masculine of professions*, and *Asymmetric usage of names, surnames, and titles* containing significantly more examples than the others. Conversely, *Usage of feminine for stereotypically female professions* and *Usage of "-essa" suffix* only have one instance. Therefore, although included in the training, we do not report the classification results for these classes.

Furthermore, the data is particularly sparse on both an inter-document and intra-document level. The former is caused by the fact that almost half of the analysed documents did not contain any sexist marker at all. The latter arises from the fact that, even in texts that did contain sexist markers, these markers constituted only a small fraction of the overall tokens. Consequently, most tokens in each text were irrelevant to the analysis.

As a last note, we want to stress that we relied on a single annotator for the entire dataset (the first author), also to test to what degree the task is doable at this fine-grained level. This constraint, while having the positive result of providing a higher degree of consistency across the annotation, did not offer the benefit of having diversified perspectives and interpretations.
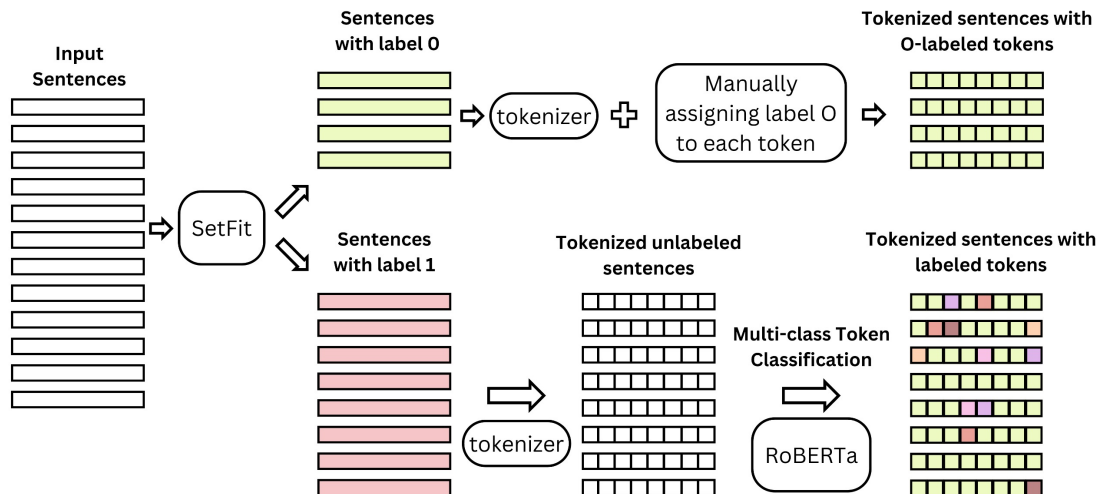
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[4]https://github.com/doccano/doccano

Figure 1: Overview of the two-step pipeline approach as presented in Section 4.2

4. Models and Approaches

After having defined the FGSDI corpus, we next evaluate on how well we can automatically detect sexist markers. In particular, we decided to tackle the problem as a token classification task, comparing two approaches: fine-tuning a $RoBERTa_{Base}$[5] model and a two-step pipeline inspired by [6]. For each approach, we experimented with different models and settings. All experiments were conducted on *Google Colab* using a T4 GPU.

4.1. Baseline

The first approach, which we used as baseline, involved fine-tuning a $RoBERTa_{Base}$ model on the token classification task. We chose RoBERTa since it achieves better results in many different tasks compared to other models from the same BERT family [5]. In particular, we compared the performance of two models, namely XLM-R [23] and Hugging Face's $RoBERTa_{Base}$ Italian.[5]

We used whole documents as input to maximize the context provided to the model to make the prediction. As pre-processing steps, we truncated and padded the texts to fit the 512-token limit of the RoBERTa tokenizer.

For training, we used Cross Entropy with cost-sensitive learning techniques [24] to assign a higher penalty to the model when it misclassified one of the minority classes (i.e. all the classes marking signs of sexism). The best results were achieved by initializing the weight of the *"O"* label to 0.05 and all the others to 2. This intervention was necessary since, due to the sparsity of the data, the majority of tokens were classified with the *"O"* label, making

it hard for the model to focus on tokens associated with the other labels relevant to our analysis.

During hyperparameter tuning, better results were achieved when training for 5 epochs with a learning rate of 6e-5, and weight decay of 0.004. Training for more epochs caused the model to overfit.

4.2. Pipeline

The second approach is a modular two-step pipeline illustrated in Figure 1, which leverages both sequence and token classification sequentially. The main difference from the baseline was the introduction of a preliminary filtering step, modelled as a binary sentence classification task, whose goal was to reduce the total number of non-sexist tokens passed on to the second step which performs token classification.

We changed our input to sentences instead of entire documents to fit the binary sentence classification task. In order to prevent an information loss deriving from having less context for the model to make the prediction, we modified the original text by applying coreference resolution. In particular, we first extracted all coreference heads and respective clusters from the full text using *crosslingual coreference*.[6] Then, for each sentence, we looked at whether it contained a coreference and, if so, we added the corresponding coreference head at the beginning of the sentence in square brackets. Finally, we adjusted the labels by assigning label 1 to all sentences containing at least one sexist marker, and 0 otherwise.

In the first step of the pipeline, we applied binary sentence classification to filter out sentences that did not

contain markers of sexism (i.e. were assigned label 0 from the model). In performing this task, we compared two different transfer-learning methods, namely fine-tuning and few-shot learning and selected the one producing the best results.

For the former approach, we employed the pre-trained $RoBERTa_{Base}$ model fine-tuned on Italian that we used for the baseline, this time trained on the binary classification task. The model was trained for 14 epochs using a learning rate of 2e-5. No cost-sensitive learning techniques were applied for this task since the labels were more balanced compared to the token classification setting.

For few-shot learning, we employed the prompt-free Set-Fit (Sentence Transformer Fine Tuning) framework [25] which is composed of two steps. Firstly, it leverages pre-trained Sentence Transformer models [26] to generate semantically meaningful embeddings for the provided labelled examples. Then a classification head assigns a class to the embeddings generated by the first step. After experimenting with different models, we picked *distiluse-base-multilingual-cased-v1*[7] as transformer and the default logistic regression model for the predictions. As additional parameters, we used 10 iterations i.e. number of sentence pairs to generate for contrastive learning (see [25] for more information), 1 epoch with batch size 16 and Cosine Similarity to calculate the distance between embeddings in the learned vector space.

Unlike LLMs and other few-shot learning methods [27] [28], SetFit offers the advantages of not relying on prompt engineering and of providing outputs in the form of vectors directly containing predictions that do not need additional formatting. Moreover, using few-shot learning allowed us to re-distribute the presence of the labels so that each class was equally represented. In particular, for label 1, we randomly sampled 30 sentences for each phenomenon, whereas for label 0 we sampled 45 sentences. Finally, the sentences that were assigned label 1 from the filtering step were used to train the $RoBERTa_{Base}$ for Italian on the token classification task.

4.3. Evaluation Methodology

The metrics we considered for evaluation are precision, recall, and F1-score. Given the unbalanced distribution of labels in the dataset in favour of non-sexist tokens, we excluded accuracy, since models could achieve high accuracy by predicting the majority class for all tokens. To assess the token classification results, we used the *seqeval* [29] framework, which is specifically suited for measuring models' performance on sequence labelling tasks providing both overall and per-class metrics. For the pipeline, we additionally incorporated the results

[7]https://huggingface.co/sentence-transformers/distiluse-base-multilingual-cased-v1

Table 1

Models Performance Metrics. For each metric mean μ and standard deviation σ are reported.

Model	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.17	0.05	0.45	0.12	0.24	0.05
Pipeline	0.33	0.05	0.37	0.12	0.35	0.07

of the binary classification task from the filtering step by tokenizing and assigning label "O" to all tokens of sentences that were predicted as not sexist.

5. Results and Analysis

Table 1 compares the results obtained with the baseline and pipeline approaches. For the baseline, we consider the $RoBERTa_{Base}$ Italian, and for the pipeline, the combination of SetFit for the binary classification and $RoBERTa_{Base}$ Italian for the token classification.

The pipeline method almost doubled the value for precision compared to the baseline, despite achieving a worse recall. This result was expected since the goal of the filtering step was to reduce the number of non-sexist sentences to pass on to the next step, therefore lowering the overall recall, to achieve higher precision in the token classification of the remaining sentences. This shows the importance of the filtering step in reducing the imbalance between majority and minority labels, allowing the model to concentrate on more subtle relationships between tokens.

Another aspect to consider is that the baseline is applied to whole documents, whereas the pipeline is based on single sentences. Despite using coreference resolution, this could prevent the model from considering certain relationships between tokens that could help better classify them.

With a higher F1-score, the pipeline approach had overall better results, although both approaches only reached modest values. Nevertheless, this result was expected due to the high imbalance of the dataset, the complexity of the task, and the fact that most minority labels did not have sufficiently many examples for the model to learn from. However, we hypothesize that increasing the amount of relevant data could lead to a greater performance gain.

This hypothesis is backed by the error annotation we conducted to acquire a more detailed overview of which phenomena were better and which worse recognized by the model. In the analysis, we focused on the results of the pipeline only, since it achieved higher precision showing, therefore, a more fine-grained understanding of the labels at hand. Moreover, we only consider the classes with a precision higher than 0.25 since the re-

maining ones are characterized by too few instances for an in-depth examination. Overall, the best results were achieved for labels *Feminine article before surname* and *Identification through man*, followed by *Masculine of professions*, *Asymmetric usage of names, surnames, and titles*, and *Generic Masculine*.

Some common trends stand out from this error annotation, which we performed manually for each of the labels mentioned above. The first was that all these classes were indeed characterized by a higher number of examples in the corpus. In particular, *Masculine of professions*, *Asymmetric usage of names, surname, and titles*, and *Generic masculine* were the labels with the highest amount of training instances. However, the results showed that this was not the only crucial aspect to take into consideration. Labels *Feminine article before surname* and *Identification through man*, despite having only about half as many instances as the aforementioned classes, were the ones for which the best results were achieved, probably due to the limited variability and high repetitiveness of the phenomena they encompassed. This second trend is also supported by the fact that *Generic masculine*, which was the most diverse class, was also the label obtaining the worst results.

Another noteworthy aspect that could be observed across different classes was the tendency of the model to pick up only certain aspects of a pattern, showing only a superficial understanding of the phenomenon analysed. For example, for the class *Masculine of professions*, characterised by both the highest number of samples and a certain repetitiveness, the model was able to correctly link the label to the pattern of high-status jobs but failed completely to consider the gender dimension. Therefore, it limited itself to classifying all instances of words such as *minister* or *lawyer* as members of this class, regardless of the gender of the referent, which was the salient aspect to consider. A similar behaviour was also noticed for the labels *Generic masculine* and *Identification through man*. We refer to appendix C for more comprehensive per-label results and error analysis.

By looking at the discrepancies between annotations and model predictions, we could not only shed light on which specific phenomena within a class needed more examples to improve results but also test the robustness of the annotation. In some cases, legitimate doubts arose, highlighting the difficulty of the task and the need for additional annotators to increase the confidence level of the annotation itself.

6. Conclusion

This work aimed to bridge a gap in the research area of sexism detection and classification in Italian by the following contributions. First, we proposed the FGSDI (Fine-grained Sexism Detection in Italian) corpus for which we, importantly, provided new in-depth annotation guidelines. They are based on foundational linguistic work by [4] and can be applied to other text genres in the future. Second, differently from previous research, we modelled the task of sexism classification as a sequence labelling instead of a text classification task. To achieve this goal, we compared two approaches, the baseline and the two-step pipeline, which allowed for a better overall performance on the task.

Working on enriching the corpus with new articles annotated with relevant labels would be the biggest contribution to bring this project forward. At the same time, having multiple annotators could enhance insights on the annotations and lower the risk of bias and subjectivity related to having a single annotator. Moreover, the modularity of the pipeline makes it open for further experimentation, especially in scenarios where more relevant data are available. One example could be using the multi-class classification setting of SetFit, which was excluded from the final pipeline since it performed slightly worse than the binary setting we ultimately used. Finally, further improvements can be made to the use of coreference resolution, which in many cases is not accurate in recognizing occurrences of the same referent in text.

Acknowledgements

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A. Annotation Guidelines

We present the annotation guidelines where for each label we provide a general description of the phenomena

falling within that label, relative examples, and, where deemed necessary, an explanation of the specific example. Additionally, we provide a translation into English made by us of the Italian examples.

A.1. Generic Masculine

This phenomenon encompasses the usage of the masculine form of substantives as "neutral" to address people of all genders. For this class, the label we used corresponds to the same level of granularity as the one proposed by Sabatini. The only difference is that we decided to follow [12] and exclude the generic masculine used to refer to indefinite groups or individuals. For example, we decided not to include the following cases:

Italian: [...] la mobilitazione **dei giornalisti italiani** contro il ddl recentemente approvato alla Camera [..] [8]

English: [...] the mobilisation of **Italian journalists** against the recently approved bill [...]

Italian: Ma cosa prevede la legge e quali sono le tappe in caso di dimissioni di **un sindaco**?[9]

English: So, what does the law stipulate and what are the steps to follow in case **a mayor** resigns?

Explanation: In both examples, using techniques such as splitting [11] (*dei giornalisti e delle giornaliste italiane* and *un sindaco o una sindaca*) might hurt the readability of the article, especially if this technique is employed in all cases featuring this type of generic masculine, which is the most common and frequent one.

It follows a list of phenomena the annotator should include in the category *Generic Masculine.* For each specific phenomenon, we provide examples, an eventual explanation of the example and motivation for considering it in the analysis.

a) Usage of words *uomo/uomini* (man/men) with generic meaning, instead of using more inclusive words such as *esseri umani* (human beings) or *persone* (people).

Examples:

Italian: [...] e dei barconi utilizzati dagli scafisti e dai mercanti di **uomini**. [10]

English: [...] and the boats used by **men** smugglers and traders.

Italian: Insieme avevano deciso di tenere in piedi il sindaco fino alla fine del Giubileo per votare nel 2017, con una sostanziale sovrapposizione del partito e **dei suoi uomini** nella gestione del Campidoglio. [11]

English: Together, they decided to hold up the mayor until the end of the Jubilee to vote in 2017 with a substantial overlap of the party and its **men** in the management of the Capitol.

Italian: Sono un anarchico io, sono per il libero pensiero però come diceva Lucrezio metto **l'uomo** al centro della natura, noi siamo figli del De Rerum Natura. [12]

English: I am an anarchist, I stand for free thinking but as Lucrezio used to say, I put the **man** at the centre of nature, we are children of the De Rerum Natura.

Italian: Mi avrebbe fatto piacere se avesse parlato [Silvio Berlusconi], ma ha scelto di non intervenire in attesa di un risarcimento, il pronunciamento della Corte europea dei diritti **dell'uomo**. [13]

English: I would have liked him [Silvio Berlusconi] to talk, but he decided not to speak pending compensation, the pronouncement of the European Court of **Men** Rights.

Italian: [...] hanno firmato la delega affidata **agli uomini** del nucleo di polizia giudiziaria [...]. [14]

English: [...] they signed the proxy entrusted to the **men** of the judicial police [...].

[8]http://www.repubblica.it/cultura/2015/10/08/news/appello_contro_la_nuova_legge_bavaglio_primo_firmatario_rodota_-124630230/?rss

[9]http://roma.repubblica.it/cronaca/2015/10/08/news/dimissioni_del_sindaco_ecco_l_iter_che_ne_consegue_secondo_la_legge-124599210/?rss

[10]https://www.repubblica.it/politica/2015/10/11/news/i_protagonisti_sono_tre_obama_putin_e_francesco-124804296/

[11]https://www.repubblica.it/politica/2015/10/09/news/renzi_ha_gia_deciso_niente_primarie_il_nome_lo_scelgo_io_-124662736/

[12]https://firenze.repubblica.it/cronaca/2015/10/26/news/cecchini_gli_allarmismi_oramai_sono_di_moda_-125935450/

[13]http://www.corriere.it/politica/15_ottobre_22/no-stop-twitter-gasparri-il-selfie-orban-stimo-8e46ae4e-78f6-11e5-95d8-a1e2a86e0e17.shtml

[14]http://roma.corriere.it/notizie/cronaca/15_ottobre_12/rischi-il-giubileo-roma-piedi-oltre-duemila-anni-305f7aa4-70bd-11e5-a92c-8007bcdc6c35.shtml#post-0

Motivation for class

The use of the generic "man" contributes to making women invisible and it reinforces the idea of women as someone who deviates from the norm. Differently from the generic masculine used to refer to indefinite groups or individuals and as underlined by Sabatini, there are good alternatives that can be used to avoid the word "man" in this generic meaning. Moreover, [30] also argues that it is more difficult for a woman to feel included in the concept of "man" or "he".

b) Usage of plural masculine with names where at least one of the names is masculine, even if there are more females than males in the group.

Examples:

Italian: In questi giorni infatti **diversi attori, artisti e cantanti** come Christiane Filangeri, Claudia Zanella, Claudio Corinaldesi, Daniela Poggi, Elena Santarelli, Fabio Troiano, Filippo Timi, Francesca Inaudi, Giulia Bevilacqua, Jasmine Trinca, Libero De Rienzo, Lillo Petrolo, Lorenza Indovina, Lorenzo Lavia, Luca Argentero, Lucia Ocone, Ludovico Fremont, Maria Rosaria Omaggio, Maya Sansa, Michele Riondino, Sonia Bergamasco, Susanna Tamaro, Valentina Lodovini, Vinicio Marchioni, Remo Girone [...]. [15]

English: In the past days, a large number of **actors, artists and singers** such as Christiane Filangeri, Claudia Zanella, Claudio Corinaldesi, Daniela Poggi, Elena Santarelli, Fabio Troiano, Filippo Timi, Francesca Inaudi, Giulia Bevilacqua, Jasmine Trinca, Libero De Rienzo, Lillo Petrolo, Lorenza Indovina, Lorenzo Lavia, Luca Argentero, Lucia Ocone, Ludovico Fremont, Maria Rosaria Omaggio, Maya Sansa, Michele Riondino, Sonia Bergamasco, Susanna Tamaro, Valentina Lodovini, Vinicio Marchioni, Remo Girone [...].

Explanation: In the rather long list of names, we can notice that the majority of names are female (14 women and 11 men). Nevertheless, the substantives *attori*, *artisti*, and *cantanti* are only declined in the masculine form. Also, we can see that a long list of names is provided, so the space required to add the words *attrici* (actress) and *artiste*

(artists feminine) would have had a minimal impact on the readability of the article.

Italian: [...] per permettere il soccorso **dei due feriti (due donne** alla guida delle utilitarie: non sarebbero gravi).[16]

English: [...] to allow the two injured (two women driving an economy car, none of them seem to be in danger) to be rescued.

Explanation: This last example shows how even in circumstances where the definite referents are all females, the generic masculine is still employed. Note how the author had to add a parenthesis to specify that the two injured were both women, highlighting how the generic masculine alone was not enough to correctly include them.

Motivation for class

In this case, we are not referring to an indefinite group of people but to a definite one, in which both women and men are present. Therefore, the specification made at the beginning about leaving out of the analysis the generic masculine when referred to an indefinite group does not hold.

c) Usage of the male form for word pairs where female and masculine have different lexical roots: *fratello* (brother), *padre* (father), *fratellanza* (brotherhood).

Examples:

Italian: Io, che nel tempo vengo da lontano quando usava il buon costume, **la fratellanza** e la gente viveva felice senza tante pretese [...]. [17]

English: I come from a past time when good manners were used, there was **brotherhood** and people lived happily without many pretensions [...].

Explanation: The word *fratellanza* (brotherhood) comes from the word *fratello* (brother). The symmetric feminine would be *sorellanza* (sisterhood). Note that in Italian there is no word like the English

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siblings or the German *Geschwister* to indicate the generic brother and sister relationship.

Italian: [...] Ma il Papa che c'entra? «È venuto un anno fa a Redipuglia, ha fatto un gran discorso sull'amore **fraterno**, la comunista si è infatuata e ha montato la tendopoli davanti alla scuola [...]. [18]

English: [...] What does the Pope have to do with this? «He came last year to Redipuglia and gave a great speech about **fraternal** love, the communist got a crush and put together the tent city in front of the school [...].

Explanation: Like the word *fratellanza* (brotherhood), also the word *fraterno* (fraternal) comes from *fratello* (brother). Note that in this case, no symmetric equivalent of *fraterno* is commonly used in Italian, although some proposals such as *sorerno* or *sorellesco* have been made.[19]
Interestingly, the pair *materno* (maternal) - *paterno* (paternal), similar in meaning and relationship to each other, do preserve the symmetry. Also, as noted by [11] in the case of *mother* and *father,* there is a tendency to explicitly include both genders in complex expressions, a practice that seems to be instead considered a "stretch" in basically any other situation. A possible interpretation could be that the realm of motherhood and mother is the only space and role in society which is considered suitable for women and in which women are at least as important as men.

Motivation for class

All the words included in this sub-category belong to the class of nouns in Italian in which gender is expressed by using different lexical roots rather than adding suffixes. As for the generic "man", also these words tend to hide women's presence and make them invisible.

d) Masculine precedence in male/female oppositional couples.

Examples:

Italian: E ricordare che "la pari dignità fra **uomo e donna** [...] all'insegna della sola differenza che tenta di allontanare le identità **uomo-donna**". [20]

English: And remember that "the equal dignity between **men and women** [...] under the sign of the only difference that tries to keep **man-woman** identities apart".

Italian: [...] italiani come noi vogliono una buona legge sui diritti civili ma non vogliono che si tolga il diritto ad un bambino di avere **un papà ed una mamma**. [21]

English: [...] Italians like us want a good civil right law but don't want to take away the right of children to have **a dad and a mum**.

Italian: "Sono convinto che la maggioranza degli italiani ritenga che la famiglia naturale sia quella formata da **un uomo e una donna**." [22]

English: "I believe that the majority of Italians considers a natural family the one of **a man and a woman**."

Italian: Il progetto presentato dalla società prevede spazi dedicati alla vendita di abbigliamento **maschile e femminile** e accessori[...]. [23]

English: The project presented by the company includes spaces dedicated to the sale of **men and women** clothing.

Italian: Arrivano in piazza del Campidoglio in piccoli gruppetti, **marito e moglie**, tre amiche [...][24]

[18] http://www.corriere.it/cronache/15_ottobre_11/gorizia-migranti-quel-bivacco-parco-caduti-be33ec74-6fe7-11e5-a08a-e76f18e62e8d.shtml#post-0

[19] https://accademiadellacrusca.it/it/consulenza/concorrenti-al-femminile-di-fraterno-scendono-in-gara-sororale-sororio-sorellevole-e-sorellesco/10082

[20] http://www.repubblica.it/vaticano/2015/10/09/news/sinodo_emendamenti_italiani_contro_il_gender_e_per_la_famiglia_uomo-donna-124706948

[21] http://www.lastampa.it/2015/10/14/italia/politica/unioni-civili-il-senato-boccia-lo-stop-2JF3S0Cf01foHuw9kzCecM/pagina.html

[22] https://www.repubblica.it/cronaca/2015/10/01/news/_il_rifiuto_della_diversita_dietro_queste_mistificazioni_-124088213/

[23] https://milano.repubblica.it/cronaca/2015/09/30/news/milano_hugo_boss_galleria-124024653/

[24] http://www.lastampa.it/2015/10/26/italia/politica/la-piazza-spontanea-di-marino-adesso-imbarazza-il-pd-vxCVzqw4AWLnQM4LlgSb3I/pagina.html

English: They arrive in Campidoglio square in small group, **husbands and wives**, three friends [...]

Motivation for class

The underlying idea for this class is that word order can be used as a syntactic means to express existing hierarchies in society. We refer to [31] for an in-depth overview of this phenomenon.

e) Usage of *donne* (women) to indicate a separate category (as if they would not be a part of the other mentioned categories).

Examples:

Italian: Arrestati cinque cittadini marocchini e due italiani, **tra cui una donna**, per rapina aggravata in concorso. [25]

English: Five Moroccan and two Italian citizens, **one of which a woman** were arrested for aggravated robbery in complicity.

Italian: Gorizia è città di frontiera, siamo abituati ad accogliere, quando scoppiò la guerra in Jugoslavia arrivarono 17 mila profughi; ma c'erano anche **donne** e bambini. [26]

English: Gorizia is a border city, we are used to hosting, when the war in Yugoslavia broke out, 17 thousand refugees came; but at the time there were also **women** and children.

Italian: Tre giovani, di 17, 22 e 23 anni, **e una ragazza** di 22 anni [...]. [27]

English: Three young people aged 17, 22 and 23, **and a 22-year-old girl** [...].

Motivation for class

The fact that women are appointed as a separate category where a group of individuals are mentioned has two main effects. On the one hand, this validates the fact that the generic masculine is not really neutral, as pointed out by the first and last examples. On the other hand, women are perceived as a whole homogenous category, as if their gender would already attribute certain characteristics to them.

f) Use of masculine forms for specific female subjects (also for personifications).

Examples:

Italian: Dopo 20 anni di gestione animalista e no profit, **vincitore è risultata una impresa** barese, **proprietaria** di un mega canile da 1200 posti a Bari assai fatiscente e **gestore** di stabulari per animali da laboratorio per l'università di Bari. [28]

English: Thanks to 20 years of animal welfare and non-profit management, **the winner** was a company from Bari, **owner** of a big, very run-down 1200-seat dog shelter in Bari, which manages a facility for lab animals for the University of Bari.

Explanation: Here we can see that the subject of the sentence is *una impresa* (a company), which is grammatically feminine. Despite that, both *vincitore* (winner) and *gestore* (manager, supervisor) are declinated in the masculine form. It is interesting that *proprietaria* (owner) is instead correctly feminine.

Italian: Questo vuole Putin, che sa tuttavia di dover stipulare un accordo con gli Usa e con Obama in particolare perché chi tra un anno gli succederà non è detto che conceda alla Russia il ruolo di **comprimario** che Obama, pur cercando di limitarlo, è comunque disposto a riconoscer**gli**. [29]

English: This is what Putin wants, however, he knows that he will have to make a deal with the US and Obama in particular because whoever will succeed him might grant Russia the supporting role that Obama, although trying to limit it, is still willing to recognise it.

Explanation: Russia is feminine in Italian, nevertheless both the word *comprimario* and the clitic *gli* are in the masculine form. As

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[25] https://milano.repubblica.it/cronaca/2015/10/17/news/milano_rapine_sui_treni-125266311/

[26] http://www.corriere.it/cronache/15_ottobre_11/gorizia-migranti-quel-bivacco-parco-caduti-be33ec74-6fe7-11e5-a08a-e76f18e62e8d.shtml#post-0

[27] http://www.corriere.it/cronache/15_ottobre_07/catania-scontro-moto-quattro-giovani-muoiono-carbonizzati-3e3ade90-6d37-11e5-8dcf-ce34181ab04a.shtml#post-0

[28] https://roma.repubblica.it/cronaca/2015/09/30/news/_no_alla_privatizzazione_dei_canili_comunali_di_roma_il_presidio_dei_lavoratori_all_ex_cinodromo-123987648/

[29] https://www.repubblica.it/politica/2015/10/11/news/i_protagonisti_sono_tre_obama_putin_e_francesco-124804296/

noted in [11], clitic *gli* often replaces the feminine *le* even in contexts where the referent is clearly feminine.

<u>**Motivation for class**</u>

This is in line with the tendency of the generic masculine already observed before. Also, in all these cases the choice could additionally be biased by the fact that the roles expressed by these terms are usually associated with men.

A.2. Usage of feminine for stereotypically female professions

We added this label as sub-category of *Generic masculine* to identify cases where the "rule" of generic masculine was not applied if the profession or role indicated by the substantive was stereotypically occupied by women. This phenomenon is related to the concept of *social gender* described by [32], which refers to the tendency to use female pronouns or nouns when referring to professions which are lower status and usually occupied by women and male ones in all other cases. We found however only one example for this class.

Examples:

Italian: Nelle elementari **le maestre** spesso non bastano nemmeno per sostituire chi è in malattia e le attività con piccoli gruppi di bambini sono quasi scomparse.[30]

English: In primary schools, the number of **teachers** is often not enough even to replace those who are sick and the activities with small groups of children are almost non-existent.

A.3. Masculine of professions

This class corresponds to Sabatini's label *Asymmetries in the usage of agentives* and analyses two phenomena. One of them is the usage of the masculine form of professional titles (especially for high-status ones) to refer to specific female referents. The other is the use of *donna* (woman) as a modifier attached to the masculine form of the profession. Sabatini also included in this category the creation of the agentive forms through the suffix *-essa*, for which we decided to create a separate class.

Examples:

Italian: **Il ministro** Maria Elena Boschi [...]. [31]

English: **Minister** Maria Elena Boschi [...].

Italian: [...] racconta **il suo avvocato** Erika Galati [...]. [32]

English: [...] says her **lawyer** Erika Galati [...].

Italian: [...] candidare una **donna premier**?[33]

English: [...] nominate a **woman prime minister**?

Italian: Henriette Reker, la candidata che sabato è stata vittima di un'aggressione xenofoba per il suo impegno a favore dei migranti, è stata eletta **sindaco** di Colonia. [34]

English: Henriette Reker, the candidate who was the victim of xenophobic aggression on Saturday due to her commitment to immigrants, was elected **mayor** of Cologne.

Italian: [...] **candidata sindaco** di Colonia alle elezioni in programma domani [...] [35]

English: [...] **mayor candidate** of Cologne in tomorrow's elections [...]

Italian: Per questo, Salvini dopo l'endorsement **al leader** di Fratelli d'Italia Giorgia Meloni come possibile **candidato sindaco** del centrodestra a Roma [...]. [36]

English: For this reason, Salvini, after the endorsement of Giorgia Meloni, **leader** of Fratelli d'Italia, as a possible centre-right **mayor candidate** in Rome [...].

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[30] http://www.repubblica.it/scuola/2015/10/20/news/l_ora_di_religione_in_aule_semivuote_ma_e_vietato_unire_le_classi_-125463096

[31] http://www.corriere.it/politica/15_ottobre_13/senato-riforma-traguardo-opposizioni-non-voteranno-ae4eb4fc-716c-11e5-b015-f1d3b8f071aa.shtml

[32] http://www.corriere.it/cronache/15_ottobre_08/funerali-cattolici-la-madre-fatima-jihadista-italiana-7bdc0eb6-6de3-11e5-8aec-36d78f2dc604.shtml#post-0

[33] http://www.lastampa.it/2015/10/20/italia/politica/la-grande-tentazione-di-casaleggio-in-campo-direttamente-lui-oppure-una-donna-O6NTs3Vtws2OYuRIPoIl8J/pagina.html

[34] http://www.corriere.it/esteri/15_ottobre_18/colonia-candidata-vittima-aggressione-stata-eletta-sindaco-cfb286da-75bf-11e5-a6b0-84415ffd3d85.shtml

[35] http://www.lastampa.it/2015/10/17/esteri/agguato-a-colonia-ferita-a-coltellate-candidata-sindaco-indipendente-sDXbWLi9YLLuwPujF7TQpO/pagina.html

[36] https://milano.repubblica.it/cronaca/2015/10/09/news/salvini_maroni-124724471/

Explanation: Although having used the neutral form *leader* to refer to the politician Meloni, the author of the article still endorses the masculine form by using the male preposition *al* (to) instead of the correct female one, *alla*. The same can be noted also for the compound *candidato sindaco*, where both nouns are declined in the masculine forms, although they refer to a woman. This compound occurred often in the corpus, also in the form *candidata sindaco* (first noun in the feminine and second in the masculine form) but never in the whole feminine form *candidata sindaca*.

One can argue that this last form might sound incorrect, but it is asymmetric with respect to similar constructions such as *candidata maestra* vs *candidata maestro* (teacher candidate), where probably the first option would sound more appropriate than the second one, although both are rare in usage.

A.4. Usage of "-essa" suffix

Among the different suffixes that the Italian language uses to derive the feminine form from the masculine one, the *-essa* suffix seems to be consistently considered in the literature as bearing a negative connotation (see [20], [21] and [22]). This is also evident from the fact that there exist alternative forms for nearly all substantives that make use of this suffix. In this regard, we must make a distinction between words which are nowadays commonly used in Italian and which have therefore lost the negative connotation, such as *professoressa* (professor), and more recent neologisms such as *avvocatessa* (lawyer) for which using the form *avvocata* is to be preferred.

Examples:

Italian: **L'avvocatessa** della famiglia Steenkamp, Tania Koen, ha confermato il rilascio.[37]

English: Steenkamp's **lawyer**, Tania Koen, confirmed the release.

Explanation: [20] analyses the perception of people towards different professional titles used to refer to women. At the time of the analysis, *avvocata* (which is the grammatical feminine derivation of *avvocato*) was still considered to be agrammatical. Nevertheless, participants in the study attributed a higher degree of competence to female referents designated with this title, than with the more spread *avvocatessa*.

A.5. Asymmetric usage of names, surnames, and titles

Sabatini includes in this class instances where female referents are only referred to by their first name, asymmetries in the usage of the word *signora* (which translates to both *lady* and *Mrs*), and the usage of the feminine article before surnames. We primarily focused on the first phenomenon i.e. the asymmetry of the usage of the first-name-only to refer to women, and the latter, to which, given the high frequency with which it occurred, we dedicated a separate class.

In [33], the authors note how using first-names-only has a trivializing and degrading function since first names are commonly used to refer either to children, people belonging to the personal sphere, or those deemed occupying an inferior position in the social hierarchy scale. Additionally, while appearing in the news provides visibility, this is offset by the impossibility of obtaining more information about the referenced people, as it is not feasible to search for somebody only by their first name (e.g. in a search engine). In general, we noted the co-occurrence of this phenomenon almost exclusively with female referents.

Examples:

Italian: La vita (social) di una moderna eremita Rachel Denton, 52 anni, è una carmelitana cattolica. [...] Ma a differenza degli eremiti del passato, **Rachel** non vive in una grotta [...] **Rachel** ha comunque deciso di continuare a vivere in solitudine. [38]

English: The social media life of a modern hermit. Rachel Denton, 52 years old, is a Carmelite catholic. [...] However, differently from the hermits of the past, **Rachel** does not live in a cave [...] **Rachel** still decided to keep living in solitude.

Italian: Si chiamano **Miriam, Liliya, Marsica, Fiona o Sonya** ma indosseranno il reggiseno «Elena», o quello «Sofia», il modello «Gioia» oppure «Francesca». [39]

English: Their names are **Miriam, Liliya, Marsica, Fiona** or **Sonya**, but they will wear the «Elena» or «Sofia» bra, or the «Gioia» or «Francesca» model.

[37]http://www.corriere.it/esteri/15_ottobre_15/oscar-pistorius-andra-domiciliari-partire-20-ottobre-dbda2808-7337-11e5-b973-29d2e1846622.shtml

[38]http://www.corriere.it/foto-gallery/esteri/15_ottobre_12/vita-social-una-moderna-eremita-ba59d8c2-70da-11e5-a92c-8007bcdc6c35.shtml#post-0

[39]http://www.corriere.it/moda/news/15_ottobre_12/miriam-barbara-marsica-modelle-sono-ragazze-normali-c5300ad4-710f-11e5-a92c-8007bcdc6c35.shtml

Explanation: In the first example, Rachel Denton is introduced with both name and surname only at the beginning of the text. Instead of referring to her by surname, as we noticed to be the norm in analogous cases where men were subjects, the author keeps calling her by first-name-only throughout the whole article. In the second example, women's surnames were not mentioned even at the beginning of the article.

A.6. Feminine article before surname

We decided to dedicate a separate class to this phenomenon due to its high frequency. The asymmetric usage of the feminine article *la* followed by the surname of a woman, also defined as dissymmetric feminine in [34], is widely spread in the Italian language. Being not used for men, the functionality of this marker is mainly to make the gender of the person visible, attaching even to proper names, as noted in [11], the gender bias that perceives women as the exception to the norm.

Examples:

Italian: **La Eva Longo**... che lo sai, no? è grande amica di Nicola Cosentino, Nick o' mericano, a sua volta amico dei Casalesi... beh, **la Longo** s'aspetta di diventare presidente della commissione Infrastrutture... Poi c'è [...]. [40]

English: **The Eva Longo**... who, you know right?, is a good friend of Nicola Cosentino, Nick the American, who is in turn a friend of the Casalesi family... well, **the Longo** expects to become president of the Infrastructure Commission... Then there is [...].

Explanation: Note how here even the full name of Eva Longo is preceded by the feminine article *la*, asymmetrical to Nicola Cosentino's name which has no article.

Italian: Anche quando **la Taverna** chiama prostituta **la Boschi**, o quando Castaldi mi dà del parassita sociale. [41]

English: Also when **the Taverna** calls **the Boschi** a prostitute, or when Castaldi calls me a social parasite.

Explanation: See here the dissymmetric use of the article *la* in front of the surnames Taverna and Boschi, but not in front of Castaldi.

Italian: Berlusconi chiede **alla Merkel** un aiuto [...] [42]

English: Berlusconi asks **the Merkel** for help [...]

A.7. Asymmetric usage of adjectives

This category is part of Sabatini's *Asymmetries in the usage of adjectives, substantives, diminutives, and verbs*, though we decided to address each of these phenomena separately. The decision was mainly motivated by the low frequency of the single categories, whose specific nuances were easier to identify using smaller and less ambiguous labels.

The adjectives that we considered in the analysis refer mainly to three semantic areas that perpetuate the gender bias of seeing women as small, silent, and uniquely identified through physical characteristics (which reinforces the idea of women as sex objects). Additionally, we included other adjectives that we noticed being used asymmetrically for men and women. Following the approach used in [13], we double-checked each potentially asymmetric adjective on Word Sketch[43], a tool that shows in which contexts a word typically appears and to which other words it is generally associated.

Examples:

Italian: Lei è stata per decenni la nostra **vivacissima**, intelligentissima 'spalla'. [...] era una persona intellettualmente **vivace** [...] con quel suo musetto **dolce** e furbo [...] sproporzionata rispetto al corpo **esile** [...]. Quel lavoro **silenzioso** [...]. [44]

English: She has been for decades our very **lively**, very clever 'sidekick'. [...] she was an intellectually **lively** person [...] with her **lovely**, astute little face [...] disproportionate to the **slight** body [...]. Her **silent** work [...].

Explanation: Noteworthy is here the usage of the word *vivace* (lively). This term is usually used to refer to children, for example in the expression *è un bambino vivace* (he is a lively child). This is also backed by Word Sketch, where the only

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[40]http://www.corriere.it/politica/15_ottobre_02/accuse-dollari-falsi-veleni-verdiniani-resa-ce-chiudono-3a2b9798-68c5-11e5-a7ad-17c7443382c3.shtml

[41]https://www.corriere.it/politica/15_ottobre_05/non-devo-scusarmi-quel-gestaccio-l-ha-fatto-lezzi-io-l-ho-mimato-9194e8f4-6b4a-11e5-9423-d78dd1862fd7.shtml

[42]http://www.lastampa.it/2015/10/23/italia/politica/berlusconi-chiede-alla-merkel-un-aiuto-per-tornare-in-sella-AYibqnhAmZhvGxdgRHlJaJ/pagina.html

[43]https://www.sketchengine.eu/guide/word-sketch-collocations-and-word-combinations/

[44]http://www.repubblica.it/cultura/2015/10/14/news/daniela_bellingeri_lutto-125034845

human referents for the adjective are namely the substantives *bambino, bimbo, bambina*. The expression is not typically used to refer to adult men. The underlying idea is to draw a parallelism between women and children [35]. Also, the adjectives *dolce* (sweet) and *esile* (slender) are rarely used for men since they do not adhere to their stereotypical gender roles. Both mostly refer to inanimate subjects and their only human subject indicated on Word Sketch is *femmina* (female). Additionally, [36] mentions the adjectives *lovely* and *sweet* (both translated as *dolce* in Italian) as being typically feminine. As for the association between women and silence, here the *silent work* conveys precisely the idea of *knowing one's place*, highlighted also by the use of *'sidekick'* to describe the referent's attitude to do her job in the shadows, without seeking due recognition.

Italian: **Grintosa** e **parecchio determinata**, la violinista nizzarda Solenne Païdassi approda domani sera alla Verdi, sull'onda di una notorietà ormai internazionale. [45]

English: **Gutsy** and **quite resolute**, the violinist from Nice Solenne Païdassi will land tomorrow evening at the Verdi theatre, on the wake of an at this point international notoriety.

Explanation: The word *grintoso* (gutsy) has *femminilità grintosa* (gutsy femininity) among its noun modifiers on Word Sketch. Note that in [14], in the initial examples that refer to the *Signorino Buonasera*, we find the word *grinta* (grit), sarcastically used to refer to a man. It is noteworthy, that the word *determinata* (resolute) would itself be more stereotypically masculine, therefore the author uses *quite* to smooth its meaning.

Italian: Nomi **semplici** e **accattivanti** di donne «**normali**». Perchè loro, le **splendide** «modelle per caso» di Intimissimi [...] rendendo protagoniste le personalità di donne **reali**[...]. [46]

English: **Simple** and **charming** names for «**normal**» women. Because they, the **splendid** «models by chance» from Intimissimi [...] featuring **real** women [...].

Explanation: It is interesting to see how the words *normal* and *real* are here used to refer to and comment on the bodies and the physical appearance of these women. This intention is made evident by the fact that the referenced women are called "*models by chance*", which explicitly draws a parallel between models' physical appearance and the one of "normal" women. We can note the asymmetric usage of the adjectives by changing the referent to a male one, since the expression *real man* is more related to moral and behavioural attitudes. The same can be noticed also for the expression *normal man*, where *normal* also refers more to the mental/psychological sphere rather than the physical one. *Splendida*, which has in Italian a connotation similar to *amazing* in English, and *charming* are also mentioned in [36] as typically feminine adjectives.

Italian: [...] ci sono scatti di Sebastiano F. assieme a una showgirl bionda che gli cinge la vita, a una mora altrettanto famosa e **procace**. [47]

English: [...] there is a photo shoot with Sebastiano F. together with a blonde showgirl encircling his waist, and an equally famous and **provocative** brunette.

Explanation: Here, *procace* not only refers to the woman's outer appearance, but it also attaches the idea of provocation. This perpetuates the link between women and sex objects by reinforcing the stereotype of the dangerous woman who uses sex as a weapon, against which men should resist.

A.8. Asymmetric usage of substantives

This class is part of Sabatini's *Asymmetries in the usage of adjectives, substantives, diminutives, and verbs* and exhibits asymmetry in two key aspects.

The first is the presence of words exclusively associated with women, for which a corresponding male form does not exist. These words mostly come from semantic domains such as sexuality, physical appearance, and marital status, which describe societal realms in which women are often relegated. This phenomenon can be exemplified by the absence of a masculine form for the word *prostituta* (prostitute). As noted in [11], this is not in line with the trend in Italian of creating a masculine term when men start occupying professions traditionally occupied by women only (see the word *ostetrico*, obstetrician).

The second phenomenon we want to investigate in this

[45] https://milano.repubblica.it/cronaca/2015/10/08/news/solenne_pai_dassi_il_mio_stravinskij_brioso_e_ardente_vi_emozionera_-124622485/

[46] http://www.corriere.it/moda/news/15_ottobre_12/miriam-barbara-marsica-modelle-sono-ragazze-normali-c5300ad4-710f-11e5-a92c-8007bcdc6c35.shtml

[47] http://roma.corriere.it/notizie/cronaca/15_ottobre_23/scandalo-gay-gigolo-collaborava-la-onlus-fondata-un-cardinale-6defd1b8-7903-11e5-95d8-a1e2a86e0e17.shtml

class is word pairs that, despite having a denotatively equivalent male version, carry a negative connotation when used in their feminine form. In this context as well, the semantic loading (see [11]) attributed to the female version of these words often has a sexual undertone. One example of this phenomenon is the asymmetric usage of *zitella* (spinster) and *scapolo* (bachelor).

Examples:

Italian: Il video della campagna - che ha come testimonial **la showgirl** Filippa Lagerbäck - [...]. [48]

English: The campaign video - which has **showgirl** Filippa Lagerbäck as testimonial - [...]

Explanation: The term *showgirl* does not have a male equivalent, since **showboy* does not exist. Rather, the word *presentatore* (host, presenter) would be used for men. Also, the original meaning of *showgirl* in English was *a young woman regarded as an object of display*[49], which gives a sexual connotation to the term, moving the attention to the outer appearance of women rather than to their profession or talent and reinforcing the idea of women as objects.

Italian: Anche quando la Taverna chiama **prostituta** la Boschi, o quando Castaldi mi dà del parassita sociale. [50]

English: Also when the Taverna calls the Boschi **a prostitute**, or when Castaldi calls me a social parasite.

Explanation: *Prostituta* is asymmetric in that there exists no male equivalent, both grammatically (**prostituto*) and semantically (the use of *gigolò* does not have the same negative connotation).

Italian: Si tutela il diritto **del fanciullo** alla continuità affettiva e si rendono entrambi i partner titolari di diritti e doveri verso di esso. [51]

English: The right of **the child** to emotional continuity is protected, and both partners are appointed rights and duties towards it.

Explanation: In this case, the word *fanciullo* is used to indicate children in general. However, the asymmetry here lies in the fact that, while the male form is used as a synonym for children, the feminine *fanciulla* is employed also for young women. The definition of *fanciulla* is namely *young woman or non-married woman of any age* or *young woman with whom one makes love*[52]. This last definition shows how the term can also be loaded with sexual connotations (not carried by the word *bambina*, which better defines a girl-child). Therefore, we can argue that the word *bambino* is to be preferred in this context.

Italian: **La signora**, assunta con un contratto a tempo determinato di cinque mesi [...]. [53]

English: **The lady**, employed on a fixed-term contract for five months [...].

Italian: [...] Lui in due anni e mezzo ha fatto quello che "questi qua" non hanno fatto in 40 anni», protesta **una signora**. [54]

English: [...] In two years and a half, he managed to do what "that others" did not manage in 40 years», complains **a lady**.

Explanation: In the last two examples, we can see the asymmetric usage of the word *signora*, in the meaning of *lady*. In the examined corpus, all instances of *signore* were always followed by the last and/or first name of the referent, which suggests its usage mainly as a title. In contrast, *signora*, exactly like *lady* in English, can be used as a synonym for woman and appears in contexts, like the ones in the examples, where for the masculine the word *man* would be employed.

Italian: Ma che sarebbe solo la piccola parte scoperta di una imponente rete sommersa, bracconieri e commercianti che farebbe capo proprio **alla signora** Yang Feng Glan [...]. [55]

[48] http://www.repubblica.it/ambiente/2015/10/02/news/salvaciclisti_limite_auto_citta_-124169246

[49] https://www.oed.com/dictionary/showgirl_n?tab=meaning_and_use

[50] https://www.corriere.it/politica/15_ottobre_05/non-devo-scusarmi-quel-gestaccio-l-ha-fatto-lezzi-io-l-ho-mimato-9194e8f4-6b4a-11e5-9423-d78dd1862fd7.shtml

[51] http://www.lastampa.it/2015/10/14/italia/politica/unioni-civili-il-senato-boccia-lo-stop-2JF3S0Cf01foHuw9kzCecM/pagina.html

[52] https://www.treccani.it/vocabolario/fanciulla_%28Sinonimi-e-Contrari%29/

[53] http://roma.corriere.it/notizie/cronaca/15_ottobre_09/buzzi-vince-tribunale-ma-solo-contro-l-ex-amante-c55a683e-6e89-11e5-aad2-b4771ca274f3.shtml#post-0

[54] http://roma.corriere.it/notizie/cronaca/15_ottobre_12/rischi-il-giubileo-roma-piedi-oltre-duemila-anni-305f7aa4-70bd-11e5-a92c-8007bcdc6c35.shtml

[55] http://www.corriere.it/cronache/15_ottobre_08/tanzania-l-arresto-regina-dell-avorio-007-italiani-ca0e9016-6df4-11e5-8aec-36d78f2dc604.shtml#post-0

English: However, this would be only the small uncovered part of a huge underground network of poachers and traders under the control of **Mrs. Yang Feng Glan** [...].

Explanation: Conversely, we decided not to consider cases like this last example, where *signora* was followed by the name and/or surname of the person. This choice was motivated by the fact that, at least in the corpus examined, we did not find strong asymmetries with the masculine counterpart.

A.9. Asymmetric usage of verbs

Since Sabatini provided only some very specific examples for this category, we tried to identify and assess possible asymmetries based on the examples found in the corpus and what was examined for the other categories. Through this analysis, we identified two main trends. The first pertained to the usage of verbs derived from the same or similar semantic areas stereotypically associated with women that were pointed out in the previous classes. The second focuses on the roles assumed by female and male actors in the use of certain verbal constructions. In particular, we limited our analysis to verbs in which both men and women referents were included in the action, but only men had the agentive roles, leaving women the role of passive objects.

Examples:

Italian: [...] il compagno musicista, **la portava** in campagna. [56]

English: [...] the partner, who's a musician, **took her** to the countryside.

Explanation: In the construction *"male subject + take + female object + to do something"*, men and women do not participate together in the action. Rather, the man takes on an agentive role and the woman the passive role of being the one *"taken somewhere to do something"*.

Italian: [...] e poi alla Boschi passerà la voglia di ridere, di **dare baci** e inizierà a sudare freddo. [57]

English: [...] and then, the Boschi will get over the urge to laugh, **give kisses**, and she will break out in a cold sweat.

Explanation: The asymmetry lies here in the reference to *give kisses*, which is a verb that belongs to the private sphere and is here used instead in a public context. This is in line with what was noted by [37] about the overlapping of the private and public spheres which permeates the Italian political scene and becomes even more evident in connection with women.

Italian: [...] Matteo Salvini che considera «pazzesco» che venga indagato e **«sputtanato»** un «leghista onesto e concreto». [58]

English: [...] Matteo Salvini, who considers «insane» that an «honest and authentic member of the Lega party» will be investigated and **«fucked up»**.

Explanation: The verb *sputtanare* (to fuck up) comes from the root of *puttana* (slut). As for *prostituta*, *puttana* does not have a male equivalent, which makes the word itself and all its derivations asymmetric.

A.10. Diminutives

Diminutives are the last aspect taken into consideration in *Asymmetries in the usage of adjectives, substantives, diminutives, and verbs*. In [35], the author draws a detailed picture of the semantic meanings associated with the diminutive. In particular, he identifies a link between diminutives and the female gender across all languages, based on the conceptual metaphor of women as children and "small things" in general. This conceptualization derives from the opposition between female/male, which sees women as smaller than men, both on a physical and power level. It is interesting to note, that this parallel between women and children could also explain the asymmetry in first-name references to women and men.

Examples:

Italian: Con il sorriso, con quel suo **musetto** dolce e furbo, gli **occhialetti** [...]. [59]

English: With her smile, her lovely astute **little face**, the **small glasses** [...].

Explanation: In Italian, diminutives are formed using suffixes *-etto*, *-ino*, *-ello*, and *-uccio* [38] as modifiers of the lexical root to which they are attached. Note that the article from which both examples are taken refers to a woman in her 50s, although

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[56] http://www.repubblica.it/cultura/2015/10/14/news/daniela_bellingeri_lutto-125034845

[57] http://www.corriere.it/politica/15_ottobre_05/ddl-boschi-senato-articolo-6-voto-segreto-846e6dae-6b80-11e5-9423-d78dd1862fd7.shtml#post-0

[58] http://www.lastampa.it/2015/10/13/italia/politica/berlusconi-mantovani-corretto-sono-stupito-MeStPSkDhe5HPxfSAV3iyH/pagina.html

[59] http://www.repubblica.it/cultura/2015/10/14/news/daniela_bellingeri_lutto-125034845

the use of diminutives associates her more with a child than with an adult woman. Moreover, the word *musetto*, diminutive of *muso* (face, snout), contributes to the metaphor of women as small animals (see A.11).

A.11. Asymmetric usage of tropes and tone

This label corresponds to the same level of granularity as Sabatini's *Asymmetries in the usage of images and tone*. Concerning the tropes, we focused mainly on the use of metaphors, metonymy and synecdoche since they are more common, but other types of tropes should also be considered in this category if instances of them are present in the corpus. The methaphors we focused on are based on [39], [40], [41], [42], and [43], and are:

- *Women as small animals*: echoes back to the idea of women as prey in the "sex-is-hunting" metaphor
- *Women as femmes fatales*: compares women, usually occupying positions of power, to either felines (tigers, lionesses, cats), to underline their slyness and charm, or insects known to have power over their male counterparts (*lucciola*, firefly)
- *Women as flowers*: suggests the idea of the fragility and powerlessness of women.

Another trope that seems to be widely used in this context is *metonymy*, and more specifically *synecdoche*, in which women are presented by only referring to their single body parts. This has the result (and aim) of objectifying the woman referent by presenting her as a mere anatomical fragment, only there for the male gaze to be pleased [44].

As for the asymmetric usage of tone, we limited our analysis to a single phenomenon which seemed to co-occur frequently with women referents in the corpus, namely the use of *scare quotes* [45]. This decision was motivated by the high level of interpretability of what to consider a "sexist tone" and the difficulty (already for human beings, let alone for models) to assess it. We also included in this class idioms and proverbs that have a misogynistic and sexist undertone.

Examples:

Italian: [...] **uno scricciolo** di donna. [60]

English: [...] a **little slip** of a woman.

Explanation: Here we can see the usage of the *woman as small animal* metaphor. In Italian, *scricciolo* literary means Winter Wren, a bird characterized by its small dimensions. Moreover, the definition provided by Treccani [61] attests to its usage to refer specifically to children, which makes the whole metaphor also in line with the parallel woman-child.

Italian: E quello che "rinuncia a 42 milioni di euro mentre gli altri hanno approvato la Legge Boccadutri (o **bocca di rosa**) con tempi da speedy gonzales". [62]

English: And the one who 'gives up 42 millions euros, while the other approved the Boccadutri Law (or **bocca di rosa**) at speedy gonzales speed.'

Explanation: The expression *bocca di rosa* (mouth of rose) is particularly interesting. On the one hand, it represents the metaphor *women as flower* due to the reference to the *rose*, which is rich in symbolism in Western cultures. On the other, *bocca di rosa* is the title of a song by Fabrizio De Andrè, a famous Italian singer-songwriter. The song narrates the story of a sex worker, who is referred to namely as *bocca di rosa*, and the term has therefore become a synonym for prostitute in Italian. Thus, in this example, the dimension of fragility and that of sex intertwine in a single oxymoronic metaphor.

Italian: Dall'altro il pragmatismo di Casaleggio che fa capire con chiarezza **chi porta - e continuerà a portare per un po' - i pantaloni in casa** Movimento 5 Stelle [...] [63]

English: On the other side, we have the pragmatism of Casaleggio which shows **who wears - and will keep wearing for a while - the trousers in the house** of Movimento 5 Stelle.

Explanation: This example refers to sexism in idioms. Trousers were in the past a piece of cloth worn only by men so that the expression has the same meaning as *to be the man of the house*. This refers to the clear patriarchal hierarchy that sees men as the ones who decide and rule within the

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[60] http://www.corriere.it/cronache/15_ottobre_23/ciao-vera-fatta-mercurio-elegante-irrequieta-difficile-non-averti-qui-23ca7324-796f-11e5-a624-46f9df231ebf.shtml

[61] https://www.treccani.it/vocabolario/scricciolo/

[62] http://www.corriere.it/politica/15_ottobre_17/grillo-bis-sogno-togliere-mio-nome-logo-maio-candidato-premier-non-certo-abbiamo-regole-5faea604-750e-11e5-a7e5-eb91e72d7db2.shtml

[63] http://www.lastampa.it/2015/10/19/italia/politica/casaleggio-stoppa-di-maio-non-passiamo-il-testimone-VHrr5YruY7MTPfLZtITs2I/pagina.html

domestic walls. This idea is reinforced by the juxtaposition of the word *casa* (home), which indicates a private space, and the name of the political party, which is instead public [37].

Italian: [...] ci sono scatti di Sebastiano F. assieme a una showgirl bionda che gli cinge la vita, a **una mora** altrettanto famosa e procace.[64]

English: [...] there is a photo shoot with Sebastiano F. together with a blonde showgirl encircling his waist, and an equally famous and provocative **brunette**.

Explanation: This is an example of synecdoche. Note how the information provided to identify the subjects varies across the sentence. First, the only man among them is presented by his first name (and the initial of the surname, probably for privacy reasons). Then, the first woman is described by her hair colour and her professional title (asymmetric as we noted in A.8). Finally, the last one is only denoted by a fragment of her body, namely her hair colour, and her attitude, which additionally carries a clear sexual undertone.

Italian: La **«regina dell'avorio»** è una imprenditrice cinese di successo, trafficante di zanne nel tempo libero. [65]

English: The **«queen of ivory»** is a successful Chinese entrepreneur, who traffics ivory fangs in her free time.

Italian: [...] sarebbe diventata un **«capo»** assoluto [...]. [66]

English: [...] she would have become an absolute **«boss»** [...].

Italian: [...] la presidente nazionale della Fiab Giulietta Pagliaccio si è **"armata"** di vernice bianca e pennello [...]. [67]

English: [...] the national president of Fiab Giulietta Pagliaccio **"armed"** herself with white paint and brush [...].

Italian: Senza mezzi termini le **'ha cantate'** su Facebook a un'agenzia di modelle che le aveva chiesto di dimagrire [...]. [68]

English: Bluntly, she **'gave it'** on Facebook to a modelling agency who asked her to lose weight [...].

Explanation: In many texts, we detected the usage of quotation marks to attenuate the meaning of verbs or substantives usually associated with masculinity when used to refer to female subjects. The first two cases exemplifying this phenomenon are the words *capo* (boss) and *regina* (queen) in quotation marks. Regarding the first, there is no contextual reason that suggests such use of scary quotes, since being a boss should not be something extreme for women. For the second, one can argue that the intention was to mark the whole expression *queen of ivory* as a nickname for the woman. If that is the case, this would attribute a sense of paternalism and trivialization to the story, which is nevertheless to be considered an instance of sexism in the use of tone and therefore classified under this category.

The remaining examples employ scare quotes to attenuate verbs. In the first case, the verb *armarsi* (to arm oneself), clearly echoes images of war and violence. This must have seemed too strong to be associated with a woman, and therefore the author preferred to attenuate its meaning by adding quotation marks. As for the second, the choice of the verb *cantarle* is already attributing a note of attenuation and trivialization to the narration, even without the usage of scare quotes.

Italian: [...] intelligentissima **'spalla'**, l'anima dell'archivio [...]. Lei era la nostra **'complice'** [...] le piaceva **'regalare'** le sue capacità [...] molti di noi hanno continuato a **'saccheggiare'** la disponibilità e cultura di Daniela [...]. [69]

English: [...] very clever **'sidekick'**, the life of the archive [...]. She was our **'accomplice'** [...] she

[64] http://roma.corriere.it/notizie/cronaca/15_ottobre_23/scandalo-gay-gigolo-collaborava-la-onlus-fondata-un-cardinale-6defd1b8-7903-11e5-95d8-a1e2a86e0e17.shtml

[65] http://www.corriere.it/cronache/15_ottobre_08/tanzania-l-arresto-regina-dell-avorio-007-italiani-ca0e9016-6df4-11e5-8aec-36d78f2dc604.shtml#post-0

[66] http://www.corriere.it/cronache/15_ottobre_23/ciao-vera-fatta-mercurio-elegante-irrequieta-difficile-non-averti-qui-23ca7324-796f-11e5-a624-46f9df231ebf.shtml

[67] http://www.repubblica.it/ambiente/2015/10/02/news/salvaciclisti_limite_auto_citta_-124169246

[68] http://www.corriere.it/salute/nutrizione/15_ottobre_16/modella-dice-basta-andate-fare-c-non-posso-tagliarmi-ossa-6e4a9b5a-7400-11e5-846d-a354bc1c3c5e.shtml

[69] http://www.repubblica.it/cultura/2015/10/14/news/daniela_bellingeri_lutto-125034845

liked **'giving away'** her abilities [...] many of us continued to **'plunder'** Daniela's willingness and knowledge [...].

Explanation: Differently from the previous examples, we can see here the apologetic usage of quotation marks (see [45]) to express detachment from the arguably not-quite-correct attitude of Daniela's colleagues towards her. The picture which this description evokes is a woman with many capabilities (she is elsewhere in the text defined as "very intelligent", "well-read" and "educated"), but who nonetheless has a marginal role and whose knowledge is exploited by others (here *saccheggiare* is in quote marks to achieve some sort of attenuation of the behaviour, although the term exactly describes the attitude of the colleagues towards her).

A.12. Identification through man

We decided to split Sabatini's *Asymmetries in the usage of identification of women through men, age, profession and role* into two categories, namely this one and the one in the following section A.13. Also, we did not include in the analysis the variables of age and profession. On the one hand, this choice was motivated by the fact that Sabatini herself did not provide any examples for these categories. On the other, both profession and age were variables already analysed in other classes in the current study.
In general, this class refers to instances where women are presented in texts through their relationship to a man in expressions such as *daughter of, wife of* or *girlfriend of.*

Examples:

Italian: Sergio e **la moglie** erano finiti in carcere nell'ambito dell'inchiesta del procuratore [...]. [70]

English: Sergio and **his wife** were imprisoned as a result of an investigation by the prosecutor [...].

Explanation: Here Sergio's wife has no name and she is just identified through the relationship to her husband.

Italian: La prima vittoria in un'aula di tribunale Salvatore Buzzi l'ha ottenuta con **la sua ex amante**. Katia Cipolla, con cui [...]. Buzzi aveva denunciato **la ex** [...]. Dietro la richiesta, la minaccia velata di rivelare la relazione **alla moglie**. [...]

Ma al processo non si è costituito parte civile contro **l'ex amante**, per la quale il pm aveva chiesto l'assoluzione. [71]

English: Salvatore Buzzi achieved his first win in court against his **ex-lover**. Katia Cipolla, with whom [...]. Buzzi pressed charges against **the ex** [...]. Behind the request, there was the threat of revealing the affair to **the wife**. [...] But at the trial, he did not bring a civil action against **the ex-lover**, of whom the public prosecutor asked for acquittal.

Italian: [...] per evitare che le cose potessero degenerare in atti di violenza nei confronti **della ex moglie** e del figlioletto. [72]

English: [...] to avoid that the situation could degenerate in violence against the **ex-wife** and the little child.

Italian: Il giovane, tra giugno 2011 e aprile 2012, aveva più volte perseguitato e minacciato **l'ex fidanzata**. [73]

English: The young man had harassed and threatened the **ex-girlfriend** multiple times between June 2011 and April 2012.

Explanation: Sabatini highlights as particularly offensive the expression *ex-girlfriend/lover/wife*, which implies that a woman continues to be identified by her male partner, even after the relationship has ended.
Note that the two last examples refer to situations of possible domestic violence. This makes even more problematic the usage of the terms *ex-wife* and *ex-girlfriend* respectively because it suggests the identification of possible victims through their oppressors.

A.13. Identification through gender/role

In this section, our primary objective is to highlight instances where women are portrayed in texts through their role as mothers. Note that we excluded instances

[70]https://milano.repubblica.it/cronaca/2015/10/05/news/milano_scarcerato_dopo_tre_mesi_i_genitori_di_fatima_la_foreing_fighter_dell_is-124402650/

[71]http://roma.corriere.it/notizie/cronaca/15_ottobre_09/buzzi-vince-tribunale-ma-solo-contro-l-ex-amante-c55a683e-6e89-11e5-aad2-b4771ca274f3.shtml#post-0

[72]http://www.lastampa.it/2015/10/17/edizioni/imperia/accusato-di-stalking-dalla-ex-moglie-cinquantenne-imperiese-agli-arresti-domiciliari-whZpW2q8UJlOinsRECEJvL/pagina.html

[73]http://firenze.repubblica.it/cronaca/2015/10/11/news/perseguitava_l_ex_fidanzata_arresti_domciliari_per_un_25enne-124838732

of *mother of* from the previous category, as one can be the mother of individuals of any gender, rendering it incongruent with the description *Indentification through men.*

In this context, the asymmetry arises from the societal expectation that becoming a mother constitutes a defining and comprehensive experience for women, while the same expectation does not apply to men. We evaluate this phenomenon in two aspects. Firstly, when information about being a mother is mentioned out of context, diverting attention from other aspects of the referent's life. Secondly, when being a mother is relevant to the context, but no additional information is provided about the woman in question, suggesting that being qualified as a mother alone suffices for identification. Furthermore, we will consider cases where women are identified by their gender rather than their profession, particularly in situations where the latter holds significance.

Examples:

Italian: Molti esponenti politici si sono detti scandalizzati, ma la reazione più efficace è stata quella di Caroline Boudet, **mamma di** Louise [...]. [74]

English: Many politicians said to be shocked, but the most impressive reaction was the one by Caroline Boudet, **mother of** Louise [...].

Explanation: Caroline Boudet is a journalist. Although in this specific context, the fact that she was the mother of Louise was relevant, it was not the only main focus of the story. Nonetheless, this is the only title used to qualify her in the whole article. We argue that the contrast is here made even more evident by the contraposition with the word *politicians*, who are described exclusively by their professional role and not by that of parents (since it is highly likely that most of them are parents themselves).

Italian: Finisce così la storia di Assunta, **la madre di** Fatima, la jihadista italiana [...]. [75]

English: Thus ends the story of Assunta, **mother of** Fatima, the Italian jihadist [...].

Explanation: Similarly to the previous example, we have no further information about Assunta

except that she is the mother of someone. Additionally, note how both women referents (namely *Assunta* and *Fatima*) are here only introduced by their first names. Notably, in other parts of the article, the father of Fatima is not presented only through his relationship with the daughter.

Italian: Le mamme sono preoccupate [...]. [76]

English: The mothers are worried [...].

Explanation: Here, women are considered as a separate homogeneous category, where members are uniquely characterized by the fact of being mothers.

Italian: E così, **le ragazze** si allenano tutto l'anno con sessioni di training speciali tra yoga, pilates e boxe. [...] E poi, diciamocelo, **una ragazza** farebbe qualsiasi cosa per non perdere il posto su quella passerella [...]. [77]

English: Thus, **the girls** work out the whole year with special training sessions involving yoga, pilates, and boxing. [...] And let's be honest, **a girl** would do anything not to lose her spot on that catwalk [...].

Explanation: Here, *ragazze* is used as a synonym of *models*, which is the profession occupied by the subjects of this article. The suggested effect is of trivialization of the profession, probably because mainly associated with women and based on outer appearance, which is one of the few aspects considered important for women.

A.14. Usage of physical characteristics to describe and present women

This category was not directly included in Sabatini's work. Nevertheless, we wanted to gather in one class all instances in which women were depicted through their physical appearance and that could not be resolved in one of the previous categories. Here, we are not delving into specific word classes as we did for the asymmetries in the usage of substantives, adjectives, and verbs. Instead, our focus lies on the organization of information and the decision to emphasize aspects of women's outer appearance rather than other facets.

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[74] http://www.corriere.it/esteri/15_ottobre_08/vignetta-choc-charlie-hebdo-cita-de-gaulle-ma-offende-down-4bc6e35c-6df9-11e5-8aec-36d78f2dc604.shtml

[75] http://www.corriere.it/cronache/15_ottobre_08/funerali-cattolici-la-madre-fatima-jihadista-italiana-7bdc0eb6-6de3-11e5-8aec-36d78f2dc604.shtml#post-0

[76]

[77] http://www.corriere.it/moda/news/15_ottobre_08/soltanto-4-litri-d-acqua-angeli-victoria-s-secret-dieta-1b54aab8-6de7-11e5-8aec-36d78f2dc604.shtml#post-0

Examples:

Italian: O'Hara, divenuta un'icona di Hollywood **con la sua inconfondibile chioma rossa**, è stata protagonista di tantissimi film [...]. [78]

English: O'Hara, who became a Hollywood icon **with her unique red hair**, starred in many films [...].

Explanation: Here the reader is presented with the idea that the reason or the most noteworthy characteristic of the actress that makes her a Hollywood icon is rather her physical appearance as it is her talent.

Italian: [Solenne Païdassi] Un suono luminoso, caldo, a tratti celestiale come **il suo bel volto sorridente, incorniciato da una folta capigliatura bionda.**[79]

English: [Solenne Païdassi] A bright, warm, celestial sound like **her beautiful smiling face, framed by thick, blonde hair**.

Italian: **Bella come** Claudia Cardinale ma gestisce un resort Miriam Ziino è siciliana, di Lipari, **profondi occhi neri, lineamenti e incarnato che ricordano** la Cardinale del Gattopardo. [80]

English: **As beautiful as** Claudia Cardinale, but she manages a resort, Miriam Zino is Sicilian, from Lipari, **deep dark eyes, facial features and complexion that remind** that of the Cardinale in Gattopardo.

Explanation: In all these examples, but particularly in the last two, references to the outer appearance of these women are completely out of context. Note that we excluded from this category references to women's bodies in cases where it could be considered relevant for the profession, for example in the case of models. Although this choice can be considered arguable, we explicitly wanted to consider only cases where the inappropriateness of these comments was obvious.

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[78]http://www.repubblica.it/spettacoli/cinema/2015/10/24/news/morta_maureen_o_hara_stella_di_john_ford-125818160

[79]https://milano.repubblica.it/cronaca/2015/10/08/news/solenne_pai_dassi_il_mio_stravinskij_brioso_e_ardente_vi_emozionera_-124622485/

[80]http://www.corriere.it/moda/news/15_ottobre_12/miriam-barbara-marsica-modelle-sono-ragazze-normali-c5300ad4-710f-11e5-a92c-8007bcdc6c35.shtml

Table 2
Labels presence per newspaper

Labels	Total
Generic masculine	64
Usage of feminine for stereotypically female professions	1
Masculine of professions	89
Usage of "-essa" suffix	1
Asymmetric usage of names, surnames, and titles	81
Feminine article before surname	35
Diminutives	8
Asymmetric usage of adjectives	29
Asymmetric usage of substantives	13
Asymmetric usage of verbs	6
Asymmetric usage of tropes and tone	20
Identification through man	38
Identification through gender/role	10
Usage of physical characteristics to describe and present women	13
Totals	**408**

B. Labels distribution by newspaper

Table 2 shows the labels's distribution in the dataset. The results are cumulative of all newspapers included in the analysis, namely *Repubblica*, *Il Corriere della Sera* and *La Stampa*.

C. Error Analysis

We present the error analysis and the concrete results achieved by both pipeline and baseline for the labels *Generic masculine*, *Masculine of professions*, *Asymmetric usage of names, surnames and titles*, *Feminine article before surname* and *Identification through man*.

The error annotation was done manually by first extrapolating all misclassified sentences for each label, splitting false positives and false negatives. Then, we collected and clustered similar error patterns in the misclassified instances and analysed the possible reasons that led to different error types.

C.1. Generic Masculine

This was the most diverse class among those considered in this analysis. Table 3 shows the results obtained for this label. Overall, the model was able to understand the main features of the phenomena falling into this category, although not always classifying them correctly. With a higher number of false positives than false negatives, the model tended to classify more instances than the annotated ones, sometimes showing only a superficial understanding of the phenomena, and other times

Table 3
Pipeline results for label "Generic Masculine"

	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.15	0.07	0.42	0.29	0.19	0.05
Pipeline	0.29	0.15	0.31	0.24	0.29	0.18

posing legitimate doubts about the annotation itself.
In particular, the precedence of masculine in female/male oppositional couples was the marker that was better recognized by the model, which even pointed out cases that were not correctly included in the annotation. These are the only instances misclassified by the model:

Italian: «[il Pd] Caro Pd siamo pronti a difendere il diritto dei bambini ad avere **mamma e papà**».[81]

Translation: «[Democratic Party] Dear Pd, we are ready to defend the right of children to have **a mother and a father**».

Explanation: Non-sexist oppositional couple, where the feminine precedes the masculine, which should therefore not be classified as a member of this class.

Italian: [...] Arrivano in piazza del Campidoglio in piccoli gruppetti, **marito e moglie**, tre amiche, due compagni di sezione del Pd [...].[82]

Translation: [...] They come to Campidoglio Square in small groups, husband and wife, three friends, two fellow members of the Pd [...].

Explanation: This instance was misclassified as *Identification through man*, probably for the occurrence of the words *husband* and *wife* that are common for this class.

Italian: Invece in Italia ci sono voluti circa quindici anni, e un lavoro di mediazione certosina, perché si arrivasse ad una legge che permetterà, da domani, anche ai genitori dell'affido di " concorrere" all'adozione **del ragazzino e della ragazzina** dei quali, di fatto, sono già figure fondamentali.[83]

Translation: It took Italy instead about fifteen years, and painstaking mediation work, to come to a law that, starting tomorrow, allows also foster parents to "compete" for the adoption of the **boy and girl** to whom they actually already are fundamental figures.

Explanation: In this example, both genders are made explicit by using splitting (i.e. both the male and female forms occurred). Although this results in the masculine form preceding the feminine one, during the annotation process, we decided not to classify it as *Generic masculine* because by using splitting the authors intended to precisely avoid the use of generic masculine, and we did not want to penalize this choice. However, the model correctly identified the precedence of the masculine form in this case. Therefore, the annotation should probably be revisited to make it more strict in this regard and less ambiguous.

Additionally, the model was able to link the presence of the substantives *uomo/uomini* (man/men) with this class. However, it seemed to limit itself to identifying and marking all occurrences of these words, rather than showing an actual understanding of the phenomenon. For example, in many cases, the model wrongly classified instances of the word *uomo* when referring to one or more explicit male referents.

Italian: Moravia, **un uomo** che amava le donne [...].[84]

Translation: Moravia, **a man** who loved women [...].

Italian: Mentre sono partite le indagini continua la caccia ai due **uomini**.[85]

Translation: While investigations have started, the hunt for the two **men** continues.

Finally, the model struggled to recognize sexist markers where women were treated as a separate category and the disagreement in gender between a subject and its nominal predicate. While both did not present enough examples for the model to properly learn from, the latter had the additional obstacle of being more abstract and less ascribable to the occurrence of specific words.

Italian: Arrestati cinque cittadini marocchini e due italiani, **tra cui una donna**, per rapina aggravata in concorso.[86]

[81] https://www.lastampa.it/politica/2015/10/18/news/boschi-sfida-alfano-sulle-unioni-civili-se-ncd-non-ci-sta-faremo-alleanze-con-altri-partiti-1.35216137/

[82] https://www.lastampa.it/politica/2016/06/06/news/la-piazza-spontanea-di-marino-adesso-imbarazza-il-pd-1.35218015/

[83] https://www.repubblica.it//politica//2015//10//14//news//l_affido_puo_diventare_adozione_la_legge_sulla_continuita_affettiva_e_legge-125088843//?rss

[84] https://www.corriere.it//cultura//15_ottobre_26//creare-poi-tuffarsi-mondo-l-affollata-solitudine-pasolini-75770eee-7bc2-11e5-9069-1cf5f2fd4ce8.shtml

[85] https://firenze.repubblica.it//cronaca//2015//10//11//news//intercettati_da_polizia_abbandonano_23_kg_di_hashish-124842364//?rss

[86] https://milano.repubblica.it//cronaca//2015//10//17//news//milano_rapine_sui_treni-125266311//?rss

Translation: Five Moroccan and two Italian citizens, **one of which a woman** were arrested for aggravated robbery in complicity.

Italian: I promotori sono tredici organizzazioni di varie nazioni [...]. [87]

Translation: The promoters are thirteen organizations from different countries [...].

As already pointed out, the model shows some understanding of which phenomena belong to this class and hardly ever misclassifies it with other labels. However, the diversity of the markers included in *Generic Masculine* has the detrimental effect of making it difficult for the model to focus more specifically on single phenomena, especially in our setting, where only a scarce number of examples per label is provided. Hence, a possible solution could be to split this class into smaller classes, each identifying a more specific marker.

C.2. Masculine of Professions

Albeit being the class with the most samples and describing a less complex phenomenon compared to other classes, the model presented some difficulties in correctly assessing this sexist marker (see table 4).

Table 4
Pipeline results for label "Masculine of professions"

	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.19	0.10	0.78	0.10	0.29	0.14
Pipeline	0.31	0.11	0.57	0.20	0.40	0.13

Even though it seemed to recognize the link of this label with high-status professions such as *minister*, *lawyer* or *mayor*, it was unable to identify the key aspect considered in this class, lying in the usage of the masculine form also for women. Rather, it marked all instances of these titles, regardless of the gender of the referent.

Italian: «Ma possiamo ancora migliorare», ammette **il direttore** sportivo Carlo Deslex. [88]

Translation: «But we can still do better», acknowledges the sports **director** Carlo Deslex.

Italian: Il ministro dell'Economia Pier Carlo Padoan [...]. [89]

Translation: The Minister of Economy Pier Carlo Padoan [...].

This behaviour could be caused by the absence of "positive" examples of the correct feminine forms for these professional titles, some of which still struggle to permeate and become part of the Italian language. In this case, efforts in providing more such examples could help the model focus on the key aspect of this class and thereby achieve better performance.

C.3. Asymmetric usage of names, surnames and titles

This was the second class in terms of the number of samples after *Masculine of Professions*, and as shown by table 5 it obtained comparable results.

Table 5
Pipeline results for label "Asymmetric usage of names, surnames, and titles"

	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.20	0.03	0.66	0.31	0.29	0.06
Pipeline	0.37	0.20	0.46	0.38	0.39	0.27

By analysing the incorrectly classified instances of this class, we can notice that the model can correctly link the class to the presence of female names. Notably, it seems even more strict than the annotator in classifying instances where women are referenced only by name. The reason could be that the model struggles to identify contexts in which using only names might be appropriate. This is made worse by the fact that the pipeline takes into account single sentences so that only a limited context is provided to the model for the prediction.

Italian: [DANIELA Bellingeri] **Daniela** era una persona intellettualmente vivace, colta, amava la musica e la poesia. [90]

Translation: [DANIELA Bellingeri] **Daniela** was an intellectually lively, well-read, loved music and poetry.

Explanation: In this case, context mattered for the annotation since the author of the article was writing about a person they knew, therefore

[87]https://www.repubblica.it//vaticano//2015//10//02//foto//sinodo_cattolici_omosessuali_a_convegno_siamo_famiglie_-124200861//1//?rss

[88]https://www.lastampa.it/verbano-cusio-ossola/sport/2015/10/18/news/basket-la-poli-oppisti-cipir-vince-al-debutto-in-casa-1.35216208/

[89]https://www.corriere.it//economia//15_ottobre_23//padoan-avanti-le-privatizzazioni-poste-fissato-prezzo-673-euro-0351fc64-7962-11e5-a624-46f9df231ebf.shtml

[90]https://www.repubblica.it//cultura//2015//10//14//news//daniela_bellingeri_lutto-125034845//?rss

referencing her only by first name. However, this context was not provided to the model, which was therefore correctly pointing out the use of the name only.

Italian: **Fatima**. Sono stati scarcerati dopo 3 mesi di detenzione Sergio Sergio e la moglie **Assunta**, i genitori di **Maria** Giulia 'Fatima' Sergio , la presunta jihadista italiana convertita all'Islam e partita per la Siria per combattere nelle fila del Califfato. [91]

Translation: **Fatima**. After 3 months in prison, Sergio Sergio and his wife **Assunta**, parents of **Maria** Giulia 'Fatima' Sergio, the alleged Italian jihadist who converted to Islam and went to Siria to fight for the Caliphate, have been released.

Explanation: Here, the name Fatima could be correctly considered a member of this class. We decided not to annotate it since it was used as a nickname, but this decision can give rise to interpretations.

The last two examples show the difficulty of the annotation process and the interpretability of single phenomena. A possible solution could be to be more strict in the annotation or expose the model to more fine-grained examples where the usage of names can be appropriate. The trade-off between the two should be considered with respect to the specific use case where the model is employed. Additionally, in the second example, the model classifies Maria as asymmetric, although the name does contain her surname. This points out a possible inability of the model to distinguish cases where either multiple first and last names are present or some nicknames are introduced in the middle of the name. Similarly, potential errors derive from not correctly distinguishing names from surnames or not recognizing names as such, especially when the referent does not have an Italian name.

Italian: [Amazon] [Global] [Jay Carney] [all' inchiesta del New York Times] In un post su Medium dal titolo Quello che il New York Times non ti ha raccontato, **Carney** ha attaccato duramente il metodo di lavoro dei due giornalisti che hanno curato l'inchiesta. [92]

Translation: [Amazon] [Global] [Jay Carney] [investigation of New York Times] In a Medium post titled What the New York Times did not say, **Carney** harshly attacked the working method of the two journalists that curated the investigation.

Explanation: In this case, the model interpreted Carney as a female name and misclassified it as member of this class.

Italian: Lo ha detto Piera Maggio, la madre di Denise Pipitone, subito dopo la sentenza di assoluzione per Jessica Pulizzi, la sorellastra di **Denise** accusata di sequestro di persona. [93]

Translation: This is what Piera Maggio, mother of Denise Pipitone, said right after the verdict of acquittal for Jessica Pulizzi, **Denise**'s step-sister, accused of kidnapping.

Explanation: On the contrary, here *Denise* was not recognized as a female name and therefore not correctly classified by the model.

C.4. Feminine article before surname

Thanks to the limited variability and high repetitiveness of the phenomenon which made it easier for the model to recognize, this was the class that achieved the best overall results (see Table 6).

Table 6
Pipeline results for label "Feminine article before surname"

	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.32	0.04	0.75	0.20	0.44	0.04
Pipeline	0.56	0.15	0.58	0.24	0.55	0.16

However, we can point out some examples where the model was unable to identify the label, mainly because it did not correctly assess the presence of a surname following the article. In some cases, surnames were interpreted as nouns either because they also function as nouns in Italian or because they have a structure that recalls the one of an Italian noun. This is the case in the following two examples.

Italian: Anche quando **la Taverna** chiama prostituta la Boschi, o quando Castaldi mi dà del parassita sociale. [94]

Translation: Also when **the Taverna** calls the Boschi a prostitute, or when Castaldi calls me a social parasite.

[91] https://milano.repubblica.it//cronaca//2015//10//05//news/ /milano_scarcerato_dopo_tre_mesi_i_genitori_di_fatima_la_ foreing_fighter_dell_is-124402650//?rss

[92] https://www.lastampa.it//2015//10//19//tecnologia//amazon-ribatte-al-new-york-times-la-vostra-inchiesta-non-rispetta-i-criteri-giornalistici-yIvf1nQCNzl8AFWRirtIrJ//pagina.html

[93] https://palermo.repubblica.it//cronaca//2015//10//02//news/ /caso_denise_i_giudici_d_appello-124152405//?rss

[94] https://www.corriere.it/politica/15_ottobre_05/non-devo-scusarmi-quel-gestaccio-l-ha-fatto-lezzi-io-l-ho-mimato-9194e8f4-6b4a-11e5-9423-d78dd1862fd7.shtml

Italian: A motivare le pressioni sul protagonista di Mafia Capitale la perdita del lavoro come barista, svolto **dalla Cipolla** nell'estate del 2011 [...]. [95]

Translation: Pressures on the lead of Mafia Capitale were motivated by the loss of her job as a bartender, which **the Cipolla** did during the summer of 2011 [...].

Moreover, the model struggled with some foreign surnames or surnames with a particular structure such as *O'Hara* in the following example, which the model did not recognise as a surname.

Italian: [...] **la O'Hara** aveva ricevuto nel febbraio scorso l'Oscar alla carriera. [96]

Translation: [...] **the O'Hara** received last February an Oscar to her career.

Finally, there were a few instances where the model was misled by the surrounding context, resulting in errors where names of other entities, like bands (first example) or cars (second example), were mistakenly identified as surnames:

Italian: San Siro, **la Banda Bassotti** e la Champions sfumata: gli striscioni sfottò anti-Juve.

Translation: San Siro, **the Banda Bassotti** and the vanished Champions League: the mocking banners against Juve. [97]

Italian: Un nuovo diesel per la Opel Meriva Opel torna alle cabrio **la Cascada** a 29.400 euro [...]. [98]

Translation: A new diesel for Opel Meriva Opel reverts to convertibles **the Cascada** for 29.400 euros [...].

C.5. Identification through man

This was the class that achieved the highest recall and, only preceded by *Feminine article before surname*, the highest precision (see Table 7).
The model correctly identifies a link between this class and the presence of female substantives such as *moglie*,

Table 7
Pipeline results for label "Identification through man"

	Precision		Recall		F1-Score	
	μ	σ	μ	σ	μ	σ
Baseline	0.19	0.06	0.78	0.26	0.29	0.10
Pipeline	0.50	0.30	0.65	0.28	0.54	0.27

figlia, *fidanzata* or *compagna*. In many cases, model predictions raised legitimate doubts about the annotation, which sometimes had to be reconsidered. Nevertheless, as we also noted for the occurrence of *uomo/uomini* in the *Generic Masculine* class, the model tends to classify any instance of such words in the text without lingering on more subtle analysis. However, differently from *uomo/uomini*, this poses fewer problems, as it causes fewer false positives.

One of the most common errors in the model's predictions is neglecting whether the relationship is actually with a man. For example, in the following sentence, the relationship *sorella di* (sister of) is referred to a woman, Fatima, and was therefore not included in the annotation. However, one can argue that the phenomenon can be extended to all cases where someone is presented by their relationship with someone else, independently of gender. The annotation could therefore be revisited to include also these cases.

Italian: La **sorella di Fatima** è ancora detenuta. [99]

Translation: **Fatima's sister** is still in custody.

Another interesting factor to consider is that the model classifies instances of type *mother of* as members of this class, where we had instead set up a separate class to include them, namely *Identification through gender/ role*. This could lead to two possible solutions. Either introducing more instances of the latter class, so that the model can correctly learn to distinguish between the two cases. Or we could restore the original class by [4] that included both phenomena in a single class.

Italian: [...] hanno denunciato anche **la madre del** 27enne e una donna di 52 anni che in cambio di soldi accettava di portare a proprio nome la refurtiva nei 'compro oro' della zona. [100]

Translation: [...] they reported also **the mother of** the 27 years old and another 52 years old woman, who in exchange for money, agreed to take the

[95] https://roma.corriere.it//notizie//cronaca//15_ottobre_09//buzzi-vince-tribunale-ma-solo-contro-l-ex-amante-c55a683e-6e89-11e5-aad2-b4771ca274f3.shtml

[96] https://www.repubblica.it//spettacoli//cinema//2015//10//24//news//morta_maureen_o_hara_stella_di_john_ford-125818160//?rss

[97] https://www.corriere.it//sport//calcio//serie-a//2015-2016//notizie//serie-a-inter-juventus-finisce-0-0-nerazzurri-testa-la-fiorentina-7c8d7032-75d8-11e5-a6b0-84415ffd3d85.shtml

[98] https://www.repubblica.it//motori//sezioni//prodotto//2015//10//16//news//opel_astra_tcr_2015-125224890//?rss

[99] https://milano.repubblica.it//cronaca//2015//10//05//news//milano_scarcerato_dopo_tre_mesi_i_genitori_di_fatima_la_foreing_fighter_dell_is-124402650//?rss

[100] https://milano.repubblica.it//cronaca//2015//10//12//news//legnano_dalla_nonna_ai_cugini_sgominata_un_intera_famiglia_di_ricettatori_piu_una_complice-124904073//?rss

stolen goods under her own name to the local gold exchange shops.

Furthermore, by analysing the errors, we noticed that the word *compagna* could potentially pose a problem since it can mean both *partner* in a romantic relationship and *mate* in a sports team. Hence, more focused examples on this aspect might be needed to teach the model to distinguish between these two usages.

Italian: [...] Nadia Fanchini, solo undicesima al traguardo dello slalom gigante a 3 secondi e un decimo dalla **compagna** di squadra. [101]

Translation: [...] Nadia Fanchini, who finished only eleventh in the giant slalom, 3 and one-tenth seconds after the **teammate**.

Finally, the model correctly identified some instances of this class in the part added by the coreference resolution at the beginning of the sentence, that had however not been annotated. This can be solved by adding the annotation also for the coreference part or creating ad hoc examples to teach the model not to consider the text in that part of the sentence for the annotation. However, this does not have any negative effect on the performance of the model and can therefore be overlooked.

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[101] https://brescia.corriere.it//notizie//sport//15_ottobre_24//sci-coppa-mondo-soelden-nadia-fanchini-solo-undicesima-d434460a-7a45-11e5-9874-7180d07bb3bf.shtml