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**The Stylistics and Stylometry of Collaborative Translation: Woolf's  
*Night and Day* in Polish**

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## **Abstract**

The study investigates to what extent traditional stylistics and non-traditional stylometry can co-operate in the study of translations in terms of translatorial style. Stylistic authorship attribution methods based on a multivariate analysis of most-frequent-word frequencies are used in attempts at identifying translators. While these methods usually identify the author of the original rather than the translator, a case study is presented of the Polish translation of a single novel by Virginia Woolf, *Night and Day*, in which one translator took over from the other; the point of this takeover has been successfully identified with the above-mentioned methods.

## **The Problem**

A translated work of literature is a collaborative effort even if performed by a single translator, always haunted by the ghost of the author of the original as well as other spectres, namely those of all other intertextualities. The relationship between the author and the translator has been at the centre of mainstream translation studies and in the discipline's corpus-based and stylometric varieties, as evidenced by a growing body of scholarship (Olohan 2005, Oakes and Ji 2012).

Stylometric problems multiply when the term 'collaborative translation' is taken to signify a joint rendering of a single author into a different language by two (or more) translators, or by translator and editor (Rybicki 2011). In general, stylometry based on multivariate analyses of word frequencies successfully detects the author of the original – rather than the translator – in translations (Rybicki 2010). Sometimes this success varies from translator to translator: when Dr Johnson and Dryden translate Juvenal, the former's style is easily recognizable as that of his own poetry, while Dryden's is entirely different from that of the Poet Laureate in the original (Burrows 2002a). Similar phenomena have been observed and described in literature-oriented translation studies in research which applies the methods of traditional stylistics to analyze how translators might tend to 'contaminate' the text of the translation with elements of their own poetics; how writers translated by the same translator appear stylistically more alike in translation than they are in the original; or how the style of translations in a given literary era tend to assimilate the poetic models of their times (Munday, 2009: 11-42; Baker 2000).

Contrarily to such traditional stylistic descriptions, stylometric machine-learning methods are usually able to tell translator from translator only when translations of the same author are compared (Rybicki 2012). This approach has to deal with the additional issue of eliminating any temporal perspective, as the analysis of word frequencies has to overlook all differences resulting from variations in the historical background underlying the successive versions of the text in translation. In contrast, traditional translation studies discusses the phenomenon of retranslation in historical contexts, focusing on the translatorial agency, translator's identity, changes in linguistic

and literary systems, or style as a reflection of the ideological basis for the translated text (O'Driscoll 2011).

## **The Experiment**

This study focuses, in its experimental part, on a single case of a literary translation made by two translators. This does not mean that collaborative translations are a rarity in the publishing industry. In the Polish market, this is perhaps most famously evidenced by Maria and Cezary Frąć, responsible for the third Polish translation of Tolkien's *The Lord of the Rings*. Interestingly, it is notoriously difficult to obtain information on the reasons and details of such translatorial collaborations (very often undertaken by translatorial life-partners) from either the translators or their publishers; usually, looming deadlines for lengthy popular novels are blamed (Kozieł 2011).

But a collaborative translation can also be made for other reasons. In the case studied here, no deadline was to blame; nor were the two partners ever collaborated before; nor was this a matter of changing historical or ideological perspective. The object of the present analysis can in fact be described as a clinical case of a clash between two potentially divergent translatorial styles, free of any external pressures, and thus highly interesting as the object of stylometric study. The first ever Polish translation of Virginia Woolf's *Night and Day* was begun by Anna Kołyszko (1953-2009), whose work on that early novel of the author of *Mrs Dalloway* was interrupted by the translator's death. Kołyszko left a finished text of much of the book and a draft of another section. The translation was taken over by Magda Heydel, already the translator of other works by Woolf (*Jacob's Room*, *Between the Acts*, *A Moment's Liberty*, *On Being Ill*, *Nurse Lugton's Curtain*, *The Haunted House* - *Collected Shorter Fiction*), who also edited the entire text. As Heydel stated in a TV interview, it was for the readers to see whether there was or there was not a rift in the middle of the book where one translator took over from the other; she hoped her editing made the narration coherent as far as the style was concerned. She also emphasized the uniqueness of the translator's experience to confront her own intuition of her voice in the text with that of another (Heydel 2011). Thanks to her previous work and research on Woolf, she had had quite a definite idea of what

stylistic shape *Night and Day* should obtain in its Polish translation. Her linguistic image of Woolf's style, being, as it to an extent must, rooted in her own idiosyncratic 'feeling' of the language, was also informed by tangible evidence in Woolf scholarship. The technique of the changing point of view, to be elaborated in Woolf's mature work into the stream of consciousness, is clearly visible already in this early novel. Recreating this aspect of her writing has always been one of Heydel's central concerns. Also, her particular translation technique is to a large extent based on the idea of the voice of the speaker, with the actual reading aloud for the effect of naturalness as the ultimate test for a successful rendition. In Woolf the recognizable 'voice' of the focalizer is central as it produces the point of view in narration (Rait 2010). Thus the changes Heydel introduced into Anna Kołyszko's text were not (or very rarely) lexical but mainly syntactical. She worked with the famously long and intricate Woolfian sentences, the more so that the Polish language, with its extremely flexible sentence structure, locates most of its rhetorical and pragmatic devices here. Also for this reason, most-frequent-word analysis was a well-suited approach to this experiment in translatorial attribution.

Indeed, this seems a translatorial counterpart of David Hoover's study on *The Tutor's Story*, a novel begun by Charles Kingsley and completed by his daughter Mary under her pen name Louis Malet, with some information available on who wrote what (Hoover 2011). In the Polish *Night and Day* case, this information is exact; in both cases, the early chapters have been written by the first, the final ones by the second translator. It is also reminiscent of an earlier study on the Middle Dutch epic *Walewein* (van Dalen-Oskam and van Zundert 2007). The main difference consists in the fact that Heydel was available to confirm or deny the findings of the quantitative analysis, and to confront these with those of traditional stylistic analysis.

According to Leo Hickney, 'style is the result of choice - conscious or not' (Hickney, 1989: 4). The toil of the literary translator is largely aimed at a reconstruction or indeed a construction of style through a process of choices from among the alternatives potentially or actually offered by the target language. In a narrative text the structural axis of the style of translation is rooted in voice:

that of the characters, too, but above all that of the narrator (Rimmon-Kenan 2002: 87-106). Just as the author's 'discursive presence' manifests itself at every structural level in the original, the translated text features 'the Translator's discursive presence' that remains concealed to naive readings (Hermans 2010: 198). Traditionally, this latter presence has been condemned by translation criticism as an unwelcome filter (Venuti 1995); its reconstruction can be achieved by confronting the text of the translation with the original or with other translations (Hermans 2010: 202). Yet irrespective of any comparative analysis, each narrative text in translation offers its readers a stylistic construct that can be described as 'voice:' a voice first heard and then recorded by the translator.

A good translator – if one is to believe the practitioners of the art – 'hears voices;' in other words, he or she reconstructs, not only the plot and the text but, equally so, the narrative in its subjective dimension, and the way he or she 'hears' the 'voice' must needs be highly subjective and intuitive (Munday 2008: 16-19). The narrative voice is accessible, in the original as in the translation, through the analysis of style. A principal task of stylistics, according to Leech and Short (2007: 4), is to verify intuitions.

These intuitions, in the case of *Night and Day*, might be somewhat helped by some information on that novel. Written in 1919, it is quite traditional in terms of structure. Its creation followed the writer's periodical mental breakdown; in her own words in a letter of Oct. 16<sup>th</sup>, 1930, it served as a sort of therapeutic writing: 'I was so tremblingly afraid of my own insanity that I wrote *Night and Day* mainly to prove to my own satisfaction that I could keep entirely off that dangerous ground. (...) Bad as the book is, it composed my mind' (Woolf 2003: 274). For Woolf, the 'dangerous ground' signifies her mental illness, but also her attempts at ever more radical experiments in writing. Already her following book, *Jacob's Room*, was to become a courageous experiment; Woolf herself could only be completely satisfied with style of her much later work, *The Waves*. As she noted in her diary on Nov. 16<sup>th</sup>, 1931: 'Oh yes, between 50 & 60 I think I shall write out some very singular books, if I live. I mean I think I am about to embody, at last, the exact

shapes my brain holds. What a long toil to reach this beginning – if *The Waves* is my first work in my own style!’ (Woolf 1983: 53).

And yet the apparently standard narration of the early book is already quite removed from the model of the traditional realistic novel it strives to be; any difference there is consists in the way events are told rather than in the events themselves. This is mainly visible in the construction of the point of view, which changes in a dynamic way, migrating from character to character following the voice of the narrator, and the narrator, construed with the technique of free indirect speech, is polyphonic. As a result, various characters are empowered in this respect and are replaced by no external narrator imposed on them, eliminating all effect of the narrator’s omniscience or power over the reality of the novel. This is also the reason why the voice, or voices, that resound from Woolf’s narrative lose their solemnity, they become more private, stemming, as they do, from concrete individuals, immersed in non-trivial emotional relationships, despite being filtered through the third-person narration.

Heydel’s editing of the Kołyszko part of the translation mainly concerned this aspect of the novel. She felt a slightly lowered register and a more colloquial tone were warranted in certain portions of the dialogue; the narrative of the Polish text in the parts surrounding the dialogue needed some enhancement of the competing points of view. Modifications of the narrative included clearer indications of the perspective of the individual character rather than that of an omniscient narrator, to render the speakers’ uncertainty, mood, or need for information.

Yet the description of the minute stylistic transformations in the various versions of translation in large chunks of text using the methods of traditional stylistics becomes problematic as it is condemned to but selective presentation that serves as the basis for generalizations and to a considerable margin of error. It is worth noting, though, that this is exactly the way a literary text is written by the translator as well as shaped further by the editor : through a painstaking composing and re-reading of sentence by sentence. It is the scholar who must transpose fragmentary observation to the broad expanse of the text. This is where computer assisted quantitative studies

may come handy. In fact, French translations of Virginia Woolf have already been studied from a lexical-grammatical perspective by Charlotte Bosseaux (2007), and significant differences have been found in the functions of free indirect speech. Quite naturally, the best results should be expected from a combination of large textual corpora with analyses of individual examples – hence the idea to combine, in this paper, stylistics and stylometry.

## **Material and Method**

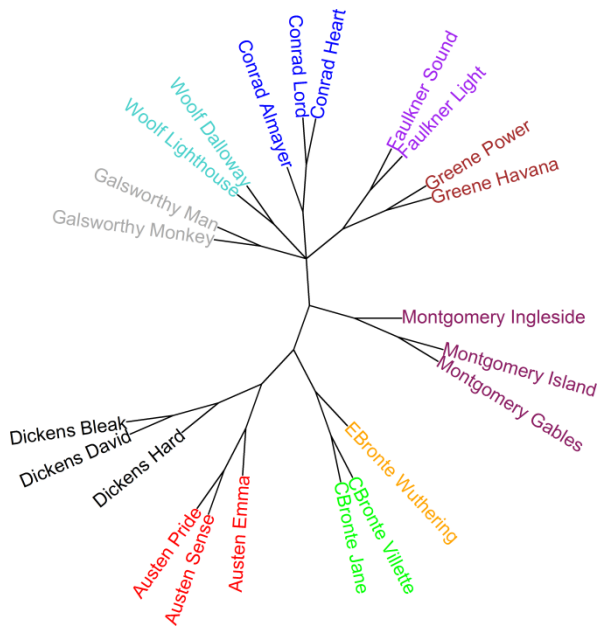
This study applies Cluster Analysis to Delta-normalized word frequencies in texts; as shown by (to name but a few) Burrows (2002) and Hoover (2004, 2004a), and despite limitations discussed by Smith and Aldridge (2011), this is one of the most precise methods of ‘stylistic dactyloscopy.’ A script by Maciej Eder, written for the R statistical environment, converts the electronic texts to produce complete most-frequent-word (MFW) frequency lists, calculates their z-scores in each text according to the Burrows Delta procedure (Burrows 2002); selects words for analysis from various frequency ranges; performs additional procedures for better accuracy (Hoover’s culling and pronoun deletion); compares the results for individual texts; produces Cluster Analysis tree diagrams that show the distances between the texts; and, finally, combines the tree diagrams made for various parameters (number of words, degree of culling) in a bootstrap consensus tree (Dunn et al. 2005, quoted in Baayen 2008: 143-147). The script was demonstrated at Digital Humanities 2011 (Eder and Rybicki 2011) and its ever-evolving versions are available online (Eder and Rybicki 2011a). The consensus tree approach, based as it is on numerous iterations of attribution tests at varying parameters, has already shown itself as a viable alternative to single-iteration analyses (Rybicki 2011, Eder and Rybicki 2012).

To illustrate this development of the original Burrows Delta procedure and, at the same time, the phenomenon of the dominance of the authorial signal over that of the translator, it is worthwhile to consider the fairly typical case of two corresponding sets of texts: a collection of 23 English novels in the original (Fig. 1) and the Polish translations of the same novels by a variety of translators, identified by their initials (Fig. 2). As can be seen, the script’s procedure guesses the

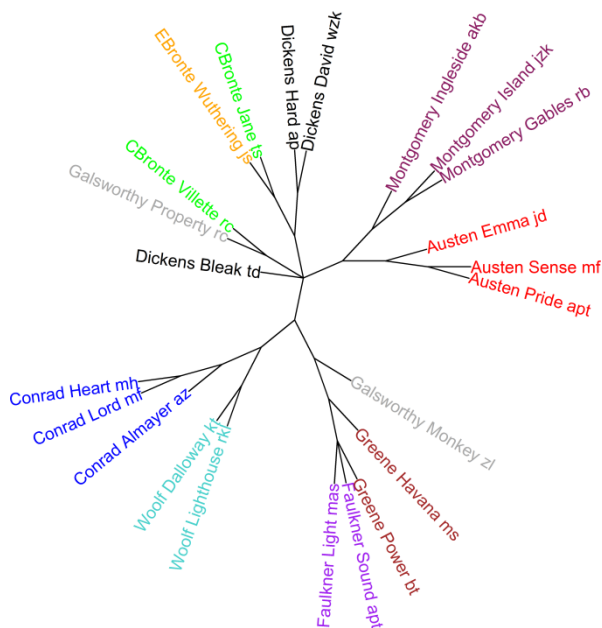


originals perfectly; and while the guessing of the authors in translations is somewhat less perfect, the authorial signal is much more marked than that of the translators; of the three represented by more than one book in the set, the translations of only one (rc) have been clustered together.

**Fig. 1 Bootstrap consensus tree for the original novels, made for 100-1000 MFWs and culling set at 100% (which signifies that only words appearing in each novel have been used for the analysis); personal pronouns have been deleted (to avoid false attributions based on narrative type and proportion of dialogue).**



**Fig. 2. The same analysis for the translations (translators are indicated by initials).**



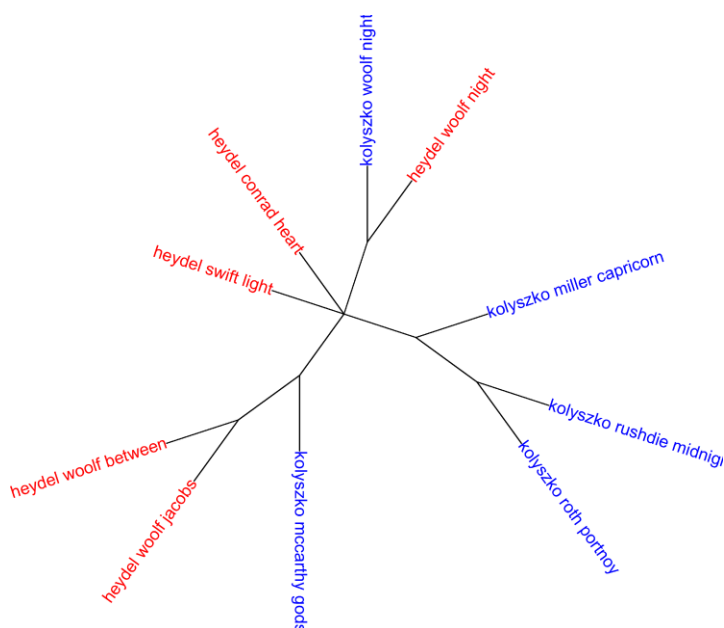
To apply the same method to the translation of the Woolf novel, it was analysed by comparing equal-sized fragments (at various iterations of fragment size) of the translation of *Night and Day* to determine the chapter where Heydel had taken over from Kołyszko; Heydel was consulted only after the initial determination had been made. At this point, the Kołyszko and the Heydel portions of the book were compared to other translations by Heydel (Woolf's *Jacob's Room*, *A Moment's Liberty* and *Between the Acts*, Graham Swift's *The Light of Day* and Conrad's *Heart of Darkness*) and by Kołyszko (McCarthy's *Child of God*, Miller's *Tropic of Capricorn*, Roth's *Portnoy's Complaint*, Rushdie's *Midnight's Children*), and then to an even more extended corpus of author-related translations.

## **Results**

All iterations of different fragment sizes of the Kołyszko/Heydel translation pointed to the beginning of Chapter 27 as the place where Heydel took over the translation from Kołyszko. Fig. 3 shows the attribution of medium-sized fragments (approximating, in this case, mean chapter length) of the translation. In fact, Kołyszko has completed 25 full chapters and left scattered notes on Chapter 26; these have been collected, organized and thoroughly edited by Heydel. If we are to believe stylometric evidence, the latter made a very good job of preserving the stylometric fingerprint of the former, so that her own is only visible in earnest in Chapter 27.

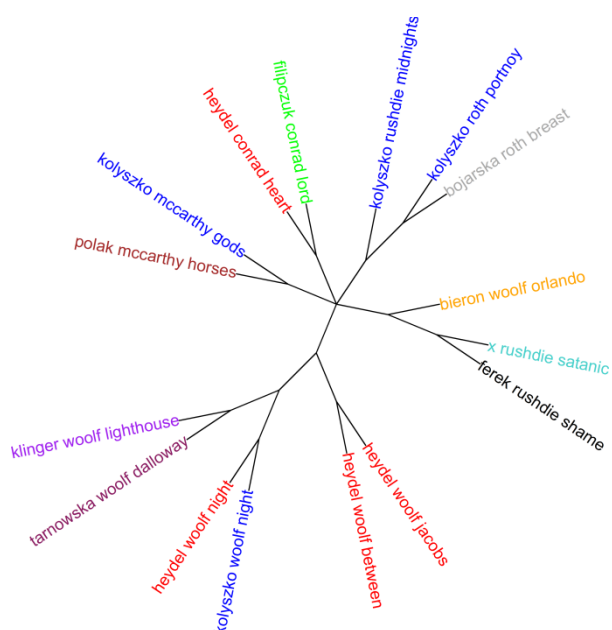


**Fig. 4 Consensus tree for translations by Kołyszko and Heydel, performed for 100-1000 MFWs with culling at 0-100%.**



When more translations by the same authors but by other translators are added to the corpus, the balance between translatorial and authorial attribution is clearly shifted towards the latter. In Fig. 5, there is not a single translatorial cluster unless the two texts share the original author; at the same time, authorial clusters abound: most importantly, an extensive one of Woolf (Kołyszko, Heydel, Tarnowska, Klinger); of the Woolf translations, only Bieroń's *Orlando* is situated elsewhere. Other authors also cluster together, at least partially: McCarthy (Polak, Kołyszko), Conrad (Heydel, Filipczuk) and Roth (Kołyszko, Bojarska). One might be grateful, perhaps, that this graph preserves the anonymity of the Polish translator of Rushdie's *Satanic Verses*, since this text's proximity to Ferek's Polish version of *Shame* is evidently another instance of the original author's visibility in translation, while Kołyszko's rendering of *Midnight's Children* is removed far away into a different portion of the bootstrap consensus tree.

**Fig. 5 Consensus tree of an extended corpus of translations, performed for 100-1000 MFWs with culling at 0-100%.**



## Conclusions

So far, attempts at finding stylometric traces of the translator or the editor have been only partially successful. Word-frequency-based methods have shown that they are better at attributing the author of the original than the translator (Rybicki 2009, 2010; Rybicki, Eder 2010) – as has already been stated, unless translations of a single author are compared. In the latter case, Burrowsian stylometry is quite capable of telling translator from translator.

The translatorial attribution is greatly helped by the adoption of the bootstrap consensus tree approach, which minimizes attributive errors due to unlucky combinations of parameters as, simply speaking, Delta and similar distance measures are more often right than wrong, but the proportion between right and wrong might vary for a variety of reasons – especially language (Eder and Rybicki 2011b). This is particularly significant in a rare translatorial attribution case such as the Kołyszko/Heydel translation of *Night and Day*, where the results of stylometric analysis can be confirmed or denied by the translator herself. Equally importantly, this study demonstrates that

although stylometry seems to find traces of the author as well as of the translator, these traces can be disambiguated by placing the disputed translations in contexts of various corpora.

Still, the results yielded by stylometric tools and the stylistic observations of the process of translation and its outcome establish two different perspectives on the same phenomenon; it cannot be stated with any certainty if they are comparable or if they confirm each other. After all, they are analyses of the text at its different levels, and stylometry does not provide a description of style as defined – variously – by poetics and literary theory (Korwin-Piotrowska 2011:323; Leech&Short 2007:10); the fact that stylometric methods have been able to pinpoint the location of the change of translator does not necessarily condemn the translation as incoherent or disjointed. And yet this interdisciplinary dialogue as evident in the present study is a clear sign, with all the above caveats, that stylometry can be used as a method of translatorial attribution. Perhaps more importantly, it opens new possibilities of the study of translation as a literary genre, where translatorial agency is seen as authorial. It seems stylometry may help to define the ‘filter’ that shows the translator’s multifaceted identity as an artist. It seems translatorial stylistic should learn how to use the findings of stylometric analysis not only in hope of arriving at some answers but also at new questions; it would help if stylometry could learn to better understand the exact mechanisms that make it so successful a tool of authorial attribution even when the author seems to be concealed by the many possible distortions that translation brings about to word frequencies. And while stylometry and stylistics, despite their similar-sounding names, continue to meet across a deep abyss, this just might be – with a little effort on both sides of the abyss – ‘the beginning of a beautiful friendship.’

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