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Structural borrowing in word-formation: An exploratory overview

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This exploratory overview of structural borrowing in word-formation discusses the multiformity of processes and patterns affected by language contact and then reviews linguistic and sociolinguistic indicators that may impact on the relative plausibility of scenarios of contact-induced change. A number of key features of this type of borrowing are highlighted: first, it is not a negligible phenomenon and should gain a more prominent position in the general contact linguistics literature; second, it is a manifold phenomenon and fine-grained descriptions, in both their qualitative and quantitative aspects, need to be considered; third, certifying the external causation of change is a challenge and the analysis should cautiously be limited to arguments of relative plausibility, which may combine and strengthen each other.

Keywords: *morphology*; *word-formation*; *contact linguistics*; *borrowing*; *language change*.

1. Introduction

Structural borrowing in word-formation seems to have been a relatively underresearched area within contact linguistics. Studies on morphological borrowing are numerous (see e.g. Gardani et al. 2015 for a recent overview), but specific discussions on the borrowing of abstract morphological schemata, or morphostructural borrowing, are noticeably rarer. This is especially so in the case of word-formation, a domain in which relevant examples and analyses are sparsely scattered in the linguistic literature. This scarcity may well be partially explained by an actual paucity of attested cases, but it is also likely to partly result from the relative difficulty of identifying structural (vs. material) innovations and of certifying the external (i.e. contact-induced) causation of linguistic change.

The concept of structural borrowing should not necessarily presuppose the non-existence of the linguistic element under study in the recipient language of the contact situation. For instance, even though the conspicuous presence of lexical blends in present-day Polish is seen as a modern innovation, some morphological outputs of lexical blending have been occasionally attested for centuries (Konieczna 2012: 56–57). As Ad Backus (2014: 24) aptly remarks, "change [...] is often a matter of 'merely' increasing or decreasing frequency of use, rather than the adoption or complete loss of particular forms" and it seems advisable not to adopt a narrow focus that would be limited to structures previously completely unattested in the recipient language (structural borrowing *sensu stricto*), but to include the manifold forms of contact-induced change. Structural borrowing in word-formation is thus defined here as the increase or decrease in frequency of use of an abstract word-formation schema caused by language contact and includes the new availability of a virtually unknown schema (i.e. a change from a null to a non-null frequency, or structural borrowing *sensu stricto*).

The approach adopted for this research is cross-linguistic, but it is not of a typological nature. The article more modestly aims to gather together illustrations of a variety of contact-induced phenomena so as to put a number of key issues into a broader perspective. It is organized as follows: Section 2 reviews the multiformity of processes and patterns affected

by language contact and presents a qualitative typology of structural borrowing in word-formation and Section 3 then discusses linguistic and sociolinguistic indicators that may impact on the relative plausibility of scenarios of contact-induced change.

2. A multiformity of structural changes

This section examines an illustrative sample of cases described in the literature, from the central, concatenative processes of word-formation, i.e. affixation and compounding, to peripheral, non-concatenative types of structure, i.e. clipping, blending and reduplication.

2.1 *Affixation*

According to R. L. Trask (1998: 322–323), Basque has historically made an extremely moderate use of the pattern of prefixation. Basque prefixes are claimed to result either from affixal borrowing from the neighboring Romance languages, as in the case of *des-* 'dis-', or from structural calquing, i.e. the language-internal forging of a prefix on the basis of a Romance model pattern, as in the case of *ez*/*ez-* 'no; non-'. This morphological development exemplifies the crossing of the line between material and structural borrowing: the appearance of a new exogenous prefix cannot be considered a simple case of material innovation if it occurs in a context where no pattern of prefixation was already commonly available in the word-formation system of the recipient language.

2.2 *Compounding*

Many patterns of compounding have migrated or varied in frequency of use under the influence of language contact. Berthold Forssman (2000, cited in Heine & Kuteva 2005: 154) reports that nominal compounding was virtually non-existent in the Baltic languages until the 5th–7th centuries CE, when contact was established with the Finnic speakers of Estonian and Livonian, two languages making ample use of the pattern, and it is this event which is surmised to have led to the subsequent presence of noun compounds in Latvian. In present-day Slavic, the new prominence of the bare noun-noun construction is said to come from the heightened influence of English in Central and Eastern Europe (Vakareliyska & Kapatsinski 2014), which has led to an emerging dispreference for the canonical adjective-noun construction, as in Bulgarian for instance (Bagasheva 2016: 18), or to the appearance of a new interfixless construction, as is manifest in Polish (Konieczna 2012: 53; Jaworski 2014: 41–43; Witalisz 2018):[1]

(1a) adjective-noun construction
Bulg. *bob.en.a čorba* 'bean.ADJ.FEM soup'

(1b) noun-noun construction
Bulg. *bob čorba* 'bean soup'

[1] For a discussion of the presence/absence of interfixes in Polish noun-noun constructs, see also Cetnarowska (2016).

(2a) interfixed compounding
Pol. *gwiazd.o.zbiór* ‘lit. star.INTERF.collection = constellation’ (Szymanek 2009: 466)

(2b) bare compounding
Pol. *seks.turystyka* ‘sex tourism’.

Contact-induced change can also become manifest through marked variations in frequency of use. The increased frequency of subordinative nominal noun-noun compounding in French under the influence of English has for instance been measured by Pierre Arnaud (2018 [in this volume]) and, conversely, language contact may also lead to a decrease in frequency of use. In Flemish, a variety of Dutch in contact with French, Johan Taeldeman (1978, cited in Heine & Kuteva 2006: 55) notes that speakers are inclined to prefer the French-induced adjective-noun construct (3a) to the canonical noun-noun construct (3b):

(3a) *administratieve kosten* ‘administrative costs’

(3b) *administratie.kosten* ‘administration costs’.

Similarly, in South Tyrol, where Italian and German are both official languages, the typically Romance noun-preposition-noun construction is developing at the expense of standard noun-noun compounding in the local variety of German (Riehl 2001, cited in Heine & Kuteva 2006: 55):

(4a) Italian: *il grappolo d’uva* ‘the bunch of grapes’

(4b) South Tyrolean German: *das Bündel von Trauben* ‘the bunch of grapes’

(4c) Standard German: *das Trauben.bündel* ‘the grapes.bunch’.

Another formal type of change in compound patterning is also attested. The lexical borrowing of English compounds is considered to have led to the increased presence of semantically right-headed nominal compounds in Romance, at the expense of the canonical left-headed constructions of the noun-noun and noun-preposition-noun types. This has, for instance, been noted for French (Renner 2017) – for common nouns (5a-b) and commercial proper nouns (5c) – and for Italian (5d-e) (Iacobini 2014: 196):

(5a) *info.bulle* ‘lit. info.balloon = tooltip’

(5b) *rando.fiche* ‘lit. hiking.card = hiking guide map’

(5c) *le Lyon bière festival* ‘the Lyon beer festival’
(rather than the canonical form *le festival de la bière de Lyon*, lit. ‘the festival of the beer of Lyon’)

(5d) *acqua.scivolo* ‘water.slide’

(5e) *calcio.mercato* ‘lit. soccer.market = soccer transfer market’.

2.3 *Clipping*

Clipping can also be affected by contact-induced change. This is for example the case in Polish, a language in which this operation of subtraction used to be common only in specific lexical fields, i.e. first names (6a), place names (6b) and school subjects (6c), and is now widely applied in informal discourse, without any domain restrictions (6d-e), under the influence of English (Jaworski 2014: 35–38):[2]

(6a) *Jolanta* > *Jola*

(6b) *Warszawa* 'Warsaw' > *Wawa*

(6c) *matematyka* 'mathematics' > *matma*

(6d) *manifestacja* 'manifestation' > *manifa*

(6e) *wykonanie* 'performance' > *wykon*.

In Catalan, a Spanish-induced morphostructural change has also affected hypocoristic formation (Cabré Monné 2008: 900–907). First names were traditionally left-clipped, but they can now also be right-clipped:

(7a) *Alexandre* > *Xandre* vs *Àlex*

(7b) *Montserrat* > *Serrat*, *Rat* vs *Montse*

(7c) *Santiago* > *Iago* vs *Santi*.

2.4 *Lexical blending*

The influence of language contact on the frequency of use of lexical blending provides a salient cross-linguistic example of recent structural change in word-formation. This may be explained by the fact that the change dates back only a few decades and that it has affected a process which used to be extremely marginal, if not non-existent, in the languages in question. Several scholars have described a similar type and time of change in a variety of Balto-Slavic languages. In their overview of the current contact situation between Latvian and English, Gunta Ločmele and Andrejs Veisbergs (2011: 312) stress that "[g]rowth in the use of blends has also been noted. In the past, blending was a non-existent word formation pattern in Latvian". Christo Stamenov (2015: 175) also reports that "[a] couple of decades ago blending as a means of word-formation was non-existent in Bulgarian". Ewa Konieczna (2012: 57) claims that "never before has Polish witnessed such an upsurge of blends" and Gordana Lalić-Krstin (2008: 237) notes similarly that "[u]ntil fairly recently, blending was practically unknown in Serbian. In the past few years, however, it has skyrocketed, forming hundreds of new blends". Svitlana Filonik (2015: 188) remarks that "[e]ven though there are

[2] For a discussion of the increasing use of clipping in Polish, see also Konieczna (2012: 54–55).

a few attestations of Ukrainian blends in works published before the 1990s, they are exceptionally rare" and Ievgeniia Karpilovska (2016: 2914) observes more generally that "[d]uring the last few decades, the Ukrainian lexicon has been characterized by an increased productivity of composition, blending and juxtaposition. This is facilitated by wide and intensive contacts of Ukrainian with other languages, primarily, English". Ada Böhmerová (2010: 112) states likewise that "[i]n Slovak the increase in the productivity of blending and the communicative frequency and penetration of blends beyond the category of nonce-words or occasionalisms is rather recent and could be ascribed to the last three decades". It emerges from these descriptions that a remarkable increase in frequency of use of the process of blending can be linked to the decades around the turn of the 21st century and to heightened contact with English in a host of countries from Central and Eastern Europe. The phenomenon is to be tied to the sociolinguistic changes that followed the Revolutions of 1989 and the end of Communist rule in the region, in which the new embrace of the West in general, and of American culture in particular, came with a concomitant embrace of the English language.

2.5 *Reduplication*

Due to the influence of both Chinese and Malay, the use of reduplication is widespread in Colloquial Singapore English (Wee 2004). First names and common nouns can be duplicated to encode a hypocoristic value (8a-d) and verbs can be either duplicated to indicate attenuation (8e-f) or triplicated to mark continuity (8g-h):

(8a) *Henry* > *Ry-Ry*

(8b) *Jeffrey* > *Jeff-Jeff*[3]

(8c) *buddy* > *buddy-buddy*

(8d) *mummy* > *mummy-mummy*

(8e) *stop* > *stop-stop* 'make a short stop'

(8f) *cry* > *cry-cry* 'cry a little bit'

(8g) *stop* > *stop-stop-stop* 'keep on stopping'

(8h) *stare* > *stare-stare-stare* 'keep on staring'.

As nominal evaluative duplication is attested in Chinese but not in Malay, and verbal continuative duplication is attested in Malay but not in Chinese (while verbal attenuative duplication is attested in both languages), it is assumed that the productive use of noun and verb duplication in Colloquial Singapore English originates from contact with not just one, but two languages. The existence of the formal pattern of triplication is, however, to be

[3] For a discussion of name reduplication in Colloquial Singapore English, see also Wong (2003).

considered as an internal innovation as it is not attested in either Chinese or Malay (Wee 2004: 267–269).

2.6 *Towards a qualitative typology of structural borrowing*

The previous subsections have shown that a wide variety of changes is attested and it is helpful to observe that, from a qualitative standpoint, they do not affect the different recipient languages to the same extent. A qualitative cline of structural borrowing can be posited – from "minimal" to "slight", "moderate" and finally "heavy" change – depending on the relative degree to which the core of the word-formation system is affected. There is heavy restructuring when a process which used to be virtually unavailable emerges in the word-formation system, as in the case of lexical blending for a number of languages of Central and Eastern Europe. There is moderate restructuring in case of, for instance, positional innovation. This includes the appearance of prefixation (alongside suffixation) in Basque and of right-headed compounding (alongside left-headed compounding) in French and Italian. There is slight restructuring when the general form of a pattern is only marginally modified, as in Polish compounding, which now includes some new interfixless constructions. Finally, the change may be only minimal, when it does not have consequences on the forms of new outputs, as in the case of clipping in Polish. For a fine-grained measure of structural change in a word-formation system, the two dimensions – qualitative and quantitative (i.e. in terms of variation of frequency of use) – should thus be taken into account.

3. Assessing the plausibility of contact-induced change

As Sarah Thomason (2001: 91) aptly puts it, "[e]stablishing the fact of contact-induced change is usually easy when the focus is on loanwords, but it can be much harder, and often impossible, with structural interference. Loanwords are easier to establish because they betray their origin directly". It is comparatively harder to spot structural borrowing because of its schematic nature. It is also hard to measure it because of the difficulty of building diachronic corpora tagged with word-formation information, and hard to fully authenticate it as the assessment is generally only probabilistic. These observations should, however, not be a deterrent to examining the issue and this section discusses various possible indicators that could be considered to enhance the relative plausibility of an external causation of change.

A correlation can first be posited between the form of language contact and the relative likelihood of external causation. Casual contact is expected to lead to lexical borrowing only (Thomason 2001: 70). A weak contact setting, characterized by a remote connection chiefly mediated by the broadcast and digital media (Onysko 2009: 58; Zenner & Van De Mieroop 2017: 77) – as is the case of English in many parts of the world, including the countries of Continental Europe –, is hypothesized to be less prone to non-material (i.e. structural) borrowing than a situation of more intense contact, which may be indexed by widespread bilingualism and/or the co-officiality of the languages under consideration in a given territory, as in South Tyrol, Catalonia or Singapore. It also seems possible to link social, sociolinguistic and linguistic change under certain circumstances. The fact that a sudden social and sociolinguistic change such as the dissolution of the Eastern Bloc at the end of the twentieth century may be documented and tied to a new situation of language contact (see e.g. Przygoński 2016 on Poland) doubtlessly increases the plausibility of external

causation. That an identical change is attested to have occurred concurrently in several languages tied to the same geopolitical event, from Latvian to Bulgarian, also strengthens the hypothesis.

Structural borrowing can also, in some cases, be tied to the presence of lexical precursors in the recipient language and the attestation of such linguistic cues could be deemed to be a factor boosting the plausibility of contact-induced change. This borrowing scenario has already been described for bound morphemes (see e.g. Bombi 2017: 273–275). To take an example, the suffix *-ing* encountered in Spanish and French is not considered to have been straightforwardly borrowed from English. It was abstracted only after a number of lexical borrowings containing this formal ending (e.g. *camping*, *karting*, *rafting*) had entered each language, and after the form was assigned a stable core meaning ('leisure activity'), and thus a morphemic status. The integration into the recipient language is complete only when the new affix is attested to concatenate with native bases, as in (9a-b) for Spanish and (9c) for French:

(9a) *balconing* 'jumping off a balcony, or between balconies' < *balcón* 'balcony'

(9b) *puenting* 'bungee jumping' < *puente* 'bridge'

(9c) *ruisseling* 'hiking up a stream' < *ruisseau* 'stream'.

In a parallel fashion, it could be argued that some instances of structural borrowing are not straightforwardly borrowed, but abstracted on the basis of a set of exogenous units integrated through lexical borrowing. This reasoning is surmised to at least apply to the morphological processes which combine two input words, i.e. compounding and lexical blending. For compounding, the lexical precursors are borrowed compounds which retain the morphostructure of the donor language, but whose morphological abnormality is backgrounded by the fact that they are fully integrated from a lexical standpoint as they display compounding elements which are already part of the lexicon of the recipient language. Examples of this type of compound borrowing from English include:[4]

(10a) Fr. *webradio* 'web radio'

(10b) Fr. *science-fiction* 'science fiction'

(10c) It. *internet caffè* 'Internet café'

(10d) It. *scuolabus* 'schoolbus'.

For blending, the lexical precursors are borrowed blends which are not morphologically opaque in the recipient language because of the existence of formally similar source words in the recipient and the donor language. Examples of this type of lexical borrowing from English in Balto-Slavic include:[5]

[4] The French data are taken from Vincent Renner (2017) and the Italian data from Claudio Iacobini (2014).
[5] In (11-12), the Ukrainian data are taken from Svitlana Winters (2017), the Latvian data from Gunta Ločmele and Andrejs Veisbergs (2011) and the Bulgarian data from Christo Stamenov (2015).

(11a) Ukr. *obamánija* ‘Obamania’ < *Obáma* + *mánija* ‘mania’

(11b) Ukr. *sekspért* ‘sexpert’ < *séks* ‘sex’ + *ekspért* ‘expert’

(11c) Latv. *kaplete* ‘caplet (= capsule-shaped tablet)’ < *kapsula* ‘capsule’ + *tablete* ‘tablet’

(11d) Bulg. *glokalen* ‘glocal’ < *globalen* ‘global’ + *lokalen* ‘local’.

The presence of compounds like those in (10) and of blends like those in (11) can be regarded as mediating the appearance of native-born items such as the compounds in (5) and the blends in (12):

(12a) Ukr. *akvás* ‘kvass diluted with water’ < *ákva* ‘aqua’ + *kvás* ‘kvass’

(12b) Latv. *atkritne* ‘trash folder’ < *atkritumu* ‘trash’ + *atvilktne* ‘drawer’

(12c) Bulg. *kljukini* ‘gossip news’ < *kljuki* ‘gossip’ + *novini* ‘news’.

The presence of lexical precursors in the recipient language makes a scenario of contact-induced change more likely and, more broadly, it should be pointed out that even though lexical borrowing might not necessarily always be a prerequisite for structural borrowing to occur – it is for instance unclear that it is the case for reduplication in Section 2.5 above –, the two types of borrowing go hand in hand, the existence of structural borrowing being tied to non-casual language contact, and so to a substantial concurrent stream of lexical borrowing.

4. Conclusion

This exploratory overview has strived to highlight a number of key features of structural borrowing in word-formation – first, that it is not a negligible phenomenon and should gain a more prominent position in the general contact linguistics literature; second, that it is a manifold phenomenon and that fine-grained descriptions, in both their qualitative and quantitative aspects, need to be considered; third, that certifying the external causation of change is a challenge and that the analysis should cautiously be limited to arguments of relative plausibility, which may combine and strengthen each other. Much remains to be done in order to obtain a deeply informed view of the field and future research in the area should aim to better document a wider variety of individual cases and to devise finer-tuned models of contact-induced change in word-formation.

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References

Arnaud, Pierre. 2018. Is French relational subordinative compounding under English influence? *SKASE Journal of Theoretical Linguistics* 15(2). 13–23.

Backus, Ad. 2014. A usage-based approach to borrowability. In Zenner, Eline & Kristiansen, Gitte (eds.), *New perspectives on lexical borrowing: Onomasiological, methodological and phraseological innovations*, 19–39. Berlin: De Gruyter Mouton.

Bagasheva, Alexandra. 2016. On [N_1N_2] constructions and word-formation in Bulgarian. In Körtvélyessy, Lívia & Štekauer, Pavol & Valera, Salvador (eds.), *Word-formation across languages*, 1–28. Newcastle upon Tyne: Cambridge Scholars Publishing.

Bombi, Raffaella. 2017. Anglicisms in Italian: Typologies of language contact phenomena with particular reference to word-formation processes. In Cerruti, Massimo & Crocco, Claudia & Marzo, Stefania (eds.), *Towards a new standard: Theoretical and empirical studies on the restandardization of Italian*, 269–292. Berlin: De Gruyter Mouton.

Böhmerová, Ada. 2010. *Blending as lexical amalgamation and its onomatological and lexicographical status in English and in Slovak*. Bratislava: ŠEVT.

Cabré Monné, Teresa. 2008. Altres sistemes de formació de mots. In Solà, Joan & Lloret, Maria-Rosa & Mascaró, Joan & Pérez Saldanya, Manuel (eds.), *Gramàtica del català contemporani*, 4th ed., Vol. 1, 889–932. Barcelona: Editorial Empúries.

Cetnarowska, Bożena. 2016. Identifying (heads of) copulative appositional compounds in Polish and English. In Körtvélyessy, Lívia & Štekauer, Pavol & Valera, Salvador (eds.), *Word-formation across languages*, 51–71. Newcastle upon Tyne: Cambridge Scholars Publishing.

Filonik, Svitlana. 2015. English and Ukrainian blending patterns in contrast. *Neologica* 9. 187–203.

Forssman, Berthold. 2000. Baltisch-finnische Sprachkontakte am Beispiel der Adposition. In Ofitsch, Michaela & Zinko, Christian (eds.), *125 Jahre Indogermanistisk in Graz: Festband anläßlich des 125jährigen Bestehens der Forschungsrichtung "Indogermanistik" an der Karl-Franzens-Universität Graz*, 125–132. Graz: Leykam.

Gardani, Francesco & Arkadiev, Peter & Amiridze, Nino. 2015. Borrowed morphology: An overview. In Gardani, Francesco & Arkadiev, Peter & Amiridze, Nino (eds.), *Borrowed morphology*, 1–23. Berlin: De Gruyter Mouton.

Heine, Bernd & Kuteva, Tania. 2005. *Language contact and grammatical change*. Cambridge: Cambridge University Press.

Heine, Bernd & Kuteva, Tania. 2006. *The changing languages of Europe*. Oxford: Oxford University Press.

Iacobini, Claudio. 2014. A constructionist account of the emergence of a new lexeme-formation pattern: Italian right-headed verbal compounds. *Carnets de Grammaire* 22. 189–204.

Jaworski, Sylwester. 2014. Contact-induced changes in Polish morphology. In Koll-Stobbe, Amei & Knospe, Sebastian (eds.), *Language contact around the globe: Proceedings of the LCTG3 Conference*, 25–45. Frankfurt: Peter Lang.

Karpilovska, Ievgeniia. 2016. Ukrainian. In Müller, Peter O. & Ohnheiser, Ingeborg & Olsen, Susan & Rainer, Franz (eds.), *Word-formation: An international handbook of the languages of Europe*, Vol. 4, 2913–2931. Berlin: De Gruyter Mouton.

Konieczna, Ewa. 2012. Lexical blending in Polish: A result of the internationalisation of Slavic languages. In Renner, Vincent & Maniez, François & Arnaud, Pierre J.L. (eds.), *Cross-disciplinary perspectives on lexical blending*, 51–73. Berlin: De Gruyter Mouton.

Lalić-Krstin, Gordana. 2008. Portmanteau animals and their portmanteau names in English and Serbian. In Rasulić, Katarina & Trbojević Milošević, Ivana (eds.), *ELLSSAC Proceedings*, Vol. 1, 231–239. Belgrade: Faculty of Philology of the University of Belgrade.

Ločmele, Gunta & Veisbergs, Andrejs. 2011. The other polysystem: The impact of translation on language norms and conventions in Latvia. In Baer, Brian James (ed.), *Contexts, subtexts and pretexts: Literary translations in Eastern Europe and Russia*, 295–316. Amsterdam: John Benjamins.

Onysko, Alexander. 2009. Divergence with a cause? The systemic integration of Anglicisms in German as an indication of the intensity of language contact. In Pfalzgraf, Falco (ed.), *Englischer Sprachkontakt in den Varietäten des Deutschen* / *English in contact with varieties of German*, 53–74. Vienna: Peter Lang.

Przygoński, Krzystof. 2016. Political transformation as a trigger for a sociolinguistic revolution in post-socialist Poland: English and its rising power. In Sloboda, Marián & Laihonen, Petteri & Zabrodskaja, Anastassia (eds.), *Sociolinguistic transition in former Eastern Bloc countries: Two decades after the regime change*, 115–139. Frankfurt: Peter Lang.

Renner, Vincent. 2017. *Fan zone*, *webradio*, *infobulle*: les noms composés ont-ils perdu la tête? *Actes du colloque OPALE* Les anglicismes: des emprunts à intérêt variable?, 321–328. Montreal: Office québécois de la langue française.

Riehl, Claudia Maria. 2001. *Schreiben, Text und Mehrsprachigkeit: Zur Textproduktion in mehrsprachigen Gesellschaften am Beispiel der deutschsprachigen Minderheiten in Südtirol und Ostbelgien*. Tübingen: Stauffenberg.

Stamenov, Christo. 2015. Borrowing word-formation: *-ing* suffixation and blending in Bulgarian. *Sŭpostavitelno Ezikoznanie* / *Contrastive Linguistics* 40(3). 163–197.

Szymanek, Bogdan. 2009. Polish. In Lieber, Rochelle & Štekauer, Pavol (eds.), *The Oxford handbook of compounding*, 464–477. Oxford: Oxford University Press.

Taeldeman, Johan. 1978. Französisch-flämische Sprachinterferenz in Flandern. In Ureland, Per Sture (ed.), *Sprachkontakte im Nordseegebiet: Akten des 1. Symposions über Sprachkontakt in Europa, Mannheim 1977*, 43–66. Tübingen: Max Niemeyer.

Thomason, Sarah G. 2001. *Language contact: An introduction*. Edinburgh: Edinburgh University Press.

Trask, R. L. 1998. The typological position of Basque: Then and now. *Language Sciences* 20(3). 313–324.

Vakareliyska, Cynthia M. & Kapatsinski, Vsevolod. 2014. An Anglo-americanism in Slavic morphosyntax: Productive [N[N]] constructions in Bulgarian. *Folia Linguistica* 48(1). 277–311.

Wee, Lionel. 2004. Reduplicated morphology in Colloquial Singapore English: Something to write home about? In Singh, Rajendra (ed.), *The yearbook of South Asian languages and linguistics 2003*, 261–271. Berlin: De Gruyter Mouton.

Winters, Svitlana. 2017. *Lexical blending in Ukrainian: System or sport?* Calgary: University of Calgary. (Doctoral dissertation.)

Witalisz, Alicja. 2018. Contact-induced right-headed interfixless N+N compounds in Polish: A corpus-based study. *Studies in Polish Linguistics* 13(1). 45–67.

Wong, Jock. 2003. The reduplication of Chinese names in Singapore English. *RASK – International Journal of Language and Communication* 19. 47–85.

Zenner, Eline & Van De Mieroop, Dorien. 2017. The social and pragmatic function of English in weak contact situations: Ingroup and outgroup marking in the Dutch reality show *Expeditie Robinson*. *Journal of Pragmatics* 113. 77–88.

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Is French relational subordinative compounding under English influence?

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Abstract: *French has Relational Subordinative [NN]$_N$ (RSNN) compounds (e.g.* sauce tomate *'tomato sauce'). The expansion of RSNN compounding in contemporary French has been frequently noted. A number of authors have claimed that the category originated in English, and the present research is aimed at determining the influence of English on French RSNN compounding.*
Searches in various early dictionaries and technical treatises uncovered 69 pre-1800 units, so English cannot have introduced RSNN compounding into French given its limited influence at the time. The translation equivalents of a random sample of 100 English RSNN units were then searched. Only two French equivalents are similar compounds. Obviously, French does not massively calque English compounds. In the other direction, 35% of French units do not have a word-for-word English equivalent, which indicates some independence of the pattern. Initial attestations show that in the vast majority of word-for-word pairs the English unit appeared first, but this does not constitute definitive proof of causality. However, in a domain like computing, where most innovation took place in English-speaking environments, there are significantly more word-for-word translation pairs than in the general lexicon.
French RSSN compounding was not introduced by English, but there is evidence of English influence on its productivity.

Keywords: *French compounds, English influence, calque*

1. Introduction

French and English have the same categories of binominal compounds (Arnaud & Renner 2014), and in particular they have Relational Subordinative [NN]$_N$ (RSNN) units such as *sauce tomate* and its equivalent *tomato sauce*.[1] An obvious difference, however, is that French RSSNs follow the Romance pattern of left-headedness while English ones are right-headed as in the other Germanic languages. From a semantic point of view, the categorization relations, for instance "nonhead is an ingredient of head" as in *sauce tomate* and *tomato sauce* currently are less numerous in French units than in English ones (Arnaud 2016). Also, while RSNN compounding was present in the earliest Germanic documents, it was marginal in Old French but gained ground with the passing of time and is now well established among French naming devices. Several authors note the recent proliferation of RSNN and other NN constructions, like Darmesteter (1891: 43), Lombard (1930: 257–263), Jenkins (1972),

[1] This article does not consider compound loanwords like *airbag*, *night-club*, *tee-shirt*, *week-end*, or pseudo-anglicisms like *baby-foot* 'table football/soccer' or *wattman* 'tramcar driver', nor does it take into account right-headed sequences such as *la grève attitude* ('the strike attitude') which are humorous occasionalisms (cf. Loock 2013); occasional hybrid neologisms such as *notes-bashing* ('criticism of schoolmarks') or *street-artiste* are not examined, either.

Noailly (1990: 12–13), and Picone (1996: 175), who sees in it one of the most prominent changes in contemporary French.

In his pioneering work on French compounds, Darmesteter (1874: 138, 240) found RSNNs *étranges* 'strange' and attributed their presence in the language to English influence,[2] followed on this latter point by Rohlfs (1928), Hatcher (1946), Etiemble (1964: 161), Guiraud (1965: 113) and Grevisse (1993: 237). These authors unfortunately did not provide evidence for this claim beyond anecdotal cases. The present investigation is aimed at determining the role of English in this matter. In this kind of research, however, we should be aware from the start that proof is difficult and, as Bowern (2013) puts it, "arguments about the causes of change (whether internal or external/contact-based) often rely ultimately on […] plausibility."

External influence on morphology may take two main forms. In the first, a morpheme or structure is introduced into a language from which it was previously absent — respectively *material borrowing* and *structural borrowing* (Haspelmath 2009). Material borrowing is exemplified by the Spanish diminutive suffix *-ito/-ita* which was borrowed differently by several of Chamoreau's (2012) sample of Mesoamerican languages: for instance, in Purépecha (isolate), a genderless language, *-ita* is applied only to female proper names while *-ito* (→ *-itu*) is unspecialized. An example of structural borrowing is that of the Baltic languages Latvian and Lithuanian, which, as Forssman (2000, quoted in Heine & Kuteva 2005: 154) reports, did not have nominal compounding; while Lithuanian remained devoid of it, compounding appeared in Latvian as a result of contact with the Finnic languages Estonian and Livonian where it is a common device. Subordinative NN compounding in Bulgarian appearing under English influence is another example (Bagasheva 2017). In the second form of external influence, a preexisting structure or one that was appearing due to the internal evolution of the language gets a boost from a foreign-language equivalent. An example of a pre-existing morpheme is the Latin suffix *-icus*, which was losing steam by the end of the Republican period but was revived by the latinization of Greek loanwords with the cognate suffix *-ικος* (Fruyt 1986: 57–58, 258). A structural example can be found in the expansion of a progressive construction (*ich bin am Arbeiten*) in Pennsylvania German (Burridge 2007), in which English is only "helping along" (Aikhenvald 2007).

I examine the first form of influence in the next section, with the following questions: When did RSNN compounds appear in French? And was that at a time when English influence on the language was felt?

2. The origin of French RSNN compounding

French RSNN compounding is not a recent innovation. Searches in various early dictionaries and technical treatises (Arnaud 2003: 119–141) uncovered 69 pre-1800 units. Early attestations, starting with *banvin* (1229) 'bann-wine (the exclusive right for the local lord to sell wine)', are few and far between, but with the appearance of dictionaries, and, during the 18th century, of technical treatises in growing numbers, more compound terms are detectable. In particular, Furetière's (1690) dictionary includes 12 indisputably RSNN types, such as *papier formule* 'paper formula (preprinted legal paper)' or *montre sonnerie* 'watch ringing-device (a watch that rings the hours)'. In spite of the existence among the 200 or so 17th and

[2] Darmesteter (1877: 157, 160–161) later changed his mind on this matter, however. It also should be noted that he was not a native speaker of French.

18th century loanwords listed by Guiraud (1965: 93) of a few originally compound items denoting British things like *paquebot* (← *packet-boat*, 1647), *boulingrin* (← *bowling-green*, 1663), *redingote* (← *riding coat*, 1725), *bouledogue* (← *bulldog*, 1745) or *rosbif* (← *roast beef*, 1755)[3] (note that these were unanalyzed and phonologically and graphically adapted), English influence on French word-formation was very limited before 1800. Only three RSNN "calques" were found: *pomme cire* 'apple wax = wax apple (an apple variety)' (Serre 1600), actually from German *Wachsapfel* (1379),[4] *papier-nouvelles* 'paper news = newspaper' (1787), in a travel book on England, and *spath-fluor* 'spar fluorine = fluorspar' (1797). In view of these data, we may safely conclude that French RSNN compounding has an indigenous origin.

By 1800 the structure was therefore present in the language, although under-represented, and it was available among other resources (see Section 3) for translating Germanic compounds. A few calques can be found along the early 19th century, like *betterave disette* ('beetroot famine = famine beetroot' ← Ger. *Mangelwürzel*, 1815), *étain-grain* (← Eng. *grain tin*, 1831), *acier-monnaie* (← Ger. *Münzstahl*, 1838). These are only a few units. Even in the domain of railways, which originated in Britain and with a strong British influence on the Continent in the early stages, the term that became dominant in French once the terminology stabilized, *chemin de fer* 'way / path of iron', was not an RSNN compound (a word-for-word equivalent would be the unattested **chemin-barres*). Other railway terms were also translated as prepositional units, like *boîte à fumée* (← *smokebox*), *dôme de vapeur* (← *steam dome*), while other compound terms received simplex or derived equivalents, like *firebox* → *foyer* 'fireplace / hearth'. Conversely, the RSNN compound *cheval vapeur* 'horse-steam' (1830) was not a calque of *horsepower* (1806, *Oxford English Dictionary*) although the concept of that unit had appeared in Britain during the 18th century. It is therefore unlikely that the Industrial Revolution increased the influence of English to the point that it might have played a major role in the expansion of the RSNN class in French.

Why, then, is the number of French RSNN compounds slowly increasing after 1850? A likely explanation is a tendency toward more synthetic forms of expression (Picone 1996: 175, 205, 252), of which there is evidence outside RSNN compounding. For instance, complex colour adjectives that were prepositional became compounds, like *bleu de roi* 'blue of king' → *bleu roi* 'blue king = royal blue' and *bleu de ciel* 'blue of sky' → *bleu ciel* 'blue sky = sky blue'. The printer's names in the front matter of books changed from *(De l')imprimerie de Untel* '(from the) printing-shop of Soandso' to *Imprimerie Untel*. The names of sauces were shortened: *sauce à la bonne femme* 'sauce *prep.* the goodwife = '*bonne femme* sauce' became *sauce bonne femme*. Squares with eponymous kings, which had prepositional names in the 18th century (*Place de Louis XVI*), were named appositively (*Place Louis XVI*) by 1830[5] (cf. also the *Avenue George V* in Paris, dedicated in 1918). This trend continues, and it

[3] These dates are from the *TLF*.

[4] *Deutsches Wörterbuch* von Jacob Grimm und Wilhelm Grimm (http://woerterbuchnetz.de) (Accessed 2016-06-03.)

[5] Data from plans and maps reproduced in Delfante & Pelletier (2009):

1773: Place de Louis XV
1789: Place de Louis XV
1822: Place de Louis XV, Place Louis XVI (on the same map)
1824: Place de Louis XVIII
1825: Place de Louis XVIII, Place Louis-Philippe (on the same map)
1830: Place Louis XVI, Place Louis XVIII
1840: Place Louis XVI, Place Louis XVIII

has more recently become possible to use place names to directly modify nouns: *l'Opéra Bastille* (1989) (cf. *le Théâtre* de *Chaillot*, 1937), *l'affaire Karachi* (2002) (cf. *l'affaire* de *Suez*, 1956), *le Louvre Abou Dabi* (2015).[6] French is not the only Romance language to undergo this kind of evolution: Dardano (2009) notes an increase in Italian compounding in the late 19th century and Fanfani (2000) shows how the names of the rolling stock categories of Italian railways changed from prepositional units to NN ones after 1870. Concerning Romanian, Trașcă (2012) observes that her analysis of three noun + noun patterns unveils a clear economization tendency in late 20th-early 21st-century written styles.

The fact that this general movement towards economy in the expression of complex concepts has been at work in French for some 150 years does not imply, however, that English played no role in the expansion of RSNN compounding in recent times, since, as Bowern (2013) notes, language contact can also accelerate changes that are incipient in the language. The question is examined in the next section, using contemporary data.

3. Does English have an influence on French RSNN compounding?

Independently of the data, if we define *calquing* as the creation of a complex lexical unit by an item-by-item translation of the complex source unit (Haspelmath 2009), we should notice that in case French RSNNs can be proved to result from English influence, they will actually be mirror images, that is, inverted-order calques of the corresponding English compounds, corresponding to what Di Spaldro et al. (2010) have called "adapted literal calques".[7]

French uses its own resources to coin RSNN compounds naming concepts with a French origin, such as the following examples:

(1) *impôt sécheresse* 'tax drought (an exceptional increase of income tax to provide money for agriculture after a severe drought)'
référé liberté 'interim-order freedom (a fast-track appeal against custody)'
moto crottes [fam.] 'motorcycle turds (a motorcycle with the equipment to vacuum dog faeces from pavements)'
radar chantier 'radar worksite (a speed camera placed in roadworks)'
loi travail 'law work (a law to change employment relations)'.

Given such examples of autonomy, a quantitative estimate of the degree of independence of French RSNN compounding from its English equivalent was undertaken, using a random sample of 100 English units extracted from the author's database of some 3,000 lexicalized items, and their French translation equivalents were searched in on-line bilingual dictionaries (Larousse, Robert & Collins), and, when absent from these, in on-line terminological dictionaries and aids to translation such as *Linguee* and *Reverso*,[8] and then searched on the web in order to verify their actual existence.[9]

1842: Place Louis XVI, Place Louis XVIII

[6] Changes towards compactness outside the noun phrase are briefly mentioned in Noailly (1990: 210).
[7] These authors present an extensive literature survey of definitions and categorizations of calques into French.
[8] http://www.linguee.com/english-french — http://dictionnaire.reverso.net/ (Accessed 1st semester 2016.)
[9] Görlach's dictionary of anglicisms cannot be used as a resource as it excludes calques (Görlach 2001: xxvi).

The categories of French equivalents that were found are presented in Table 1; equivalents labelled as "others" include simplex or derived equivalents like *storefront → devanture*, $[VN]_N$ compounds like *garage sale → vide-grenier*, various phrases like *art school → école des beaux-arts*, unmodified English loanwords like *desert boot*.

Table 1: French translation equivalents of English RSNN compounds

category	examples		n
	English	French translation	
RSNN	health insurance	assurance santé	2
N prep. N	breadboard	planche à pain	49
N prep. art. N	stomach ulcer	ulcère à l'estomac	9
N Adj	schoolbook	livre scolaire	9
others	steel mill	aciérie	31
all			100

Only two French-English translation-equivalent RSNN pairs were found. This confirms that in French as in the other Romance languages the RSNN pattern, although expanding, is far from dominant for the naming of combinatory concepts, as it yields precedence to others among which [N prep. N] with the vague prepositions *de* or *à* is the most frequent. And, of course, the two cases of RSNN correspondence in no way prove that the English unit was the source of the French one.

The next step in the investigation consisted in establishing what percentage of French RSNN compounds have an exact (i.e. word-for-word) English equivalent. A random sample of 100 French units was extracted from the author's database of approximately 1,000 items, and their equivalents in the other language were searched with the reverse method. In a word-for-word equivalent, the English unit includes the most direct translation equivalents of the head and modifier of the French unit in the opposite order. In cases of partial correspondence, one or the two components are not the most direct equivalents. The "others" category includes non-compound units, as well as a few cases where no equivalent was found. The results are shown in Table 2.

Table 2: English translation equivalents of French RSNN compounds

category	examples		n
	French	English translation	
word-for-word equivalence	compétitivité coût	cost competitiveness	65
partial correspondence	bateau pompe 'boat pump'	fireboat	18
others	demi pression 'half pressure'	draught pint	17
all			100

Of the French RSNN units, 65 have a word-for-word English equivalent. However, this information, interesting as it is, does not tell us whether these pairs are due to calquing or result from indigenous formation. Given that few compound units have dates of attestation in

dictionaries, and as the fact that they pertain to many different social or techno-scientific domains precludes historical research on their denotata, we need to look elsewhere to solve the issue.

If the English units were attested after their French equivalents, we could at least reach a negative conclusion as to calquing. Consequently, the attestation dates of the 65 word-for-word equivalent pairs were searched. Given the above-mentioned small number of dates for compounds available in dictionaries, particularly in French ones, and a general paucity of French corpus resources useful for diachronic research on compounding,[10] the units were searched in *Google Books*, keeping in mind that the English data are probably more abundant than the French ones, thus causing some artefactuality. When an earlier date was found in the *Oxford English Dictionary*, this was used. Reliable data were found for 53 pairs, as in the following examples:

(2)	coolie pousse (1895)	rickshaw coolie (1885)
	résistance série (1902)	series resistor (1915)
	point presse (1991)	press briefing (1960)
	vérité terrain (1976)	ground truth (1966)
	banane dollar (1992)	dollar banana (1973)

The English unit was attested first in 49 of the 53 pairs. We cannot therefore reject calquing into French in these cases, although we cannot prove it positively yet. Two interesting categories emerged from the data: in one, the French RSNN compound appeared long after its prepositional version, as in the case of *cuisson vapeur* 'cooking steam' (1951, vs. 1836 for its English equivalent, *steam cooking*), preceded in 1793 by *cuisson à la vapeur*. This is in accordance with the compacting trend mentioned above, which casts a doubt on English influence in this particular case.

In the other category of interest, the dates and the scientific or cultural context indicate unambiguously that that the innovation named by the compounds appeared in an English-speaking environment:

(3)	wah-wah pedal (1967)	pédale ouah-ouah (1970)
	rock opera (1970)	opéra rock (1973)
	carbon credit (1990)	crédit[11] carbone (1998)

Can such cases confirm English influence? One domain in which most of the innovation took place in the United States or internationally with English as the medium is that of computing. Kowner & Rosenhouse (2008) give a percentage of 80 for Internet sites in English and mention that most programming languages are based on that language. In Japanese, Loveday (1996: 79, 101–117, quoted in Matras 2009: 168) reports 99% English loans in the domain of computing, vs. 67% in engineering and 24% in animals. A replication of the first investigation was therefore undertaken with computing terms instead of units from the general lexicon. The on-line dictionary of the *Computer Hope* website[12] provided a random sample of 100 RSNN compounds and their French equivalents were looked up using the

[10] Volkovskaya (2013: 229) notes that the *Frantext* corpus mainly consists of literary texts (80%), whereas productive compounding is found in more mundane text types.
[11] This sense of *crédit* is an anglicism, which increases the likelihood of a calque.
[12] http://www.computerhope.com/jargon/jb.htm (Accessed 2015-11-18.)

same resources as earlier, here also checking the reality of their existence on the Web. In the few cases where no French equivalent was found, another random English unit was used. The data are shown in Table 3, with the same presentation as in Table 1.

Table 3: French translations of English RSNN computing terms

category	examples		n
	English	French translation	
RSNN	machine language	langage machine	17
N prep. N	error message	message d'erreur	52
N prep. art. N	caps lock	verrouillage des majuscules	4
N Adj	quantum computer	ordinateur quantique	6
others	spam filter	filtre anti-spam	21
all			100

The data confirm that the dominant French pattern is [N prep. N], but RSNNs are more numerous this time. Table 4 presents a comparison with the data from the general lexicon, repeated here in a grouped fashion.

Table 4: French equivalents of English RSNN compounds

	general lexicon	computing terms
RSNN compounds	2	17
other categories	98	83
all	100	100

$\chi^2 = 13.086$, 1 d.f., $p < 0.001$

The difference between the two distributions is significant: in a technological domain where English is dominant, more RSNN compounds figure among the French translation equivalents of English units.

4. Conclusion

Of the two scenarios of external influence on morphology that were mentioned in the introduction, the one in which language contact introduces previously inexistent structures can be rejected: French RSNN compounding does not have an English origin because it was already present at a time when English had very little influence on French, and the very few early calques from Germanic languages, and not just English, only show that the pattern was present and available for them.

Concerning the second case, that of an increase in the productivity of an element or structure caused by another language, things are not so obvious at first sight. In French-English pairs of word-for-word equivalent RSSN compounds, English units are massively attested first. However, anteriority is a necessary, but not a sufficient condition for causality, and firmer evidence is to be found elsewhere, in domains where, in addition to knowledge

about time, we have information about space, as we can be reasonably certain that the objects, notions or institutions denoted by the compounds appeared in English-speaking environments. This is the case of computing terminology, where significantly more French RSSN equivalents of English units are present than in the general lexicon. This makes it possible to answer the question in the title of this article in the affirmative: French relational subordinative compounding *is* under English influence.

Why were these compounds calqued into French and not simply borrowed untranslated like *week-end* and the other examples in Note 1? According to Di Spaldro et al. (2010) calquing allows for rapid terminologization in French, and the dates in (3) confirm this. In addition, calquing resorts to elements already available in the target language, and therefore contrary to borrowing it does not require phonological adaptation. Borrowing may be an "easy" solution, but calquing does not require much effort, either.

The present research has brought evidence of English influence on French RSNN compounding using dates of attestation, i.e. diachronic information. Other approaches are possible: for instance, parallel corpora can be used to investigate how novel English compounds are translated. This is a long-haul task for future research.

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References

Aikhenvald, Alexandra Y. 2007. Grammars in contact: A cross-linguistic perspective. In Aikhenvald, Alexandra Y. & Dixon, R.M.W. (eds.), *Grammars in Contact: A Cross-linguistic Typology*, 1–66. Oxford: Oxford University Press.

Arnaud, Pierre J.L. 2003. *Les composés* timbre-poste. Lyon: Presses Universitaires de Lyon.

Arnaud, Pierre J.L. 2016. Categorising the modification relations in French relational subordinative $[NN]_N$ compounds. In ten Hacken, Pius (ed.), *The Semantics of Compounding*, 71–93. Cambridge: Cambridge University Press.

Arnaud, Pierre J.L. & Renner, Vincent. 2014. English and French $[NN]_N$ lexical units: A categorial, morphological and semantic comparison. *Word Structure* 7. 1–28.

Bagasheva, Alexandra. 2017. On $[N1N2]_N$ constructions and word-formation in Bulgarian. In Körtvélyessy, Lívia & Štekauer, Pavol & Valera, Salvador (eds.), *Word-Formation across Languages*, 1–28. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Bowern, Claire. 2013. Relatedness as a factor in language contact. *Journal of Language Contact* 6. 411–432.

Burridge, Kate. 2007. Language contact and convergence in Pennsylvania German. In Aikhenvald, Alexandra Y. & Dixon, R.M.W. (eds.), *Grammars in Contact: A Cross-linguistic Typology*, 179–200. Oxford: Oxford University Press.

Chamoreau, Claudine. 2012. Spanish diminutive markers *-ito/-ita* in Mesoamerican languages : A challenge for acceptance of gender distinction. In Vanhove, Martine & Stolz, Thomas & Urdze, Aina & Otsuka, Hitomi (eds.), *Morphologies in Contact*, 71–90. Berlin: Akademie Verlag.

Dardano, Maurizio. 2009. *Costruire parole : la morfologia derivativa dell'italiano*. Bologna: Il Mulino.

Darmesteter, Arsène. 1874. *Traité de la formation des mots composés dans la langue française comparée aux autres langues romanes et au latin*. Paris: Franck.

Darmesteter, Arsène. 1877. *De la Création actuelle des mots nouveaux dans la langue française et des lois qui la régissent*. Paris: Vieweg.

Darmesteter, Arsène. 1891. *Cours de grammaire historique de la langue française, 3: Formation des mots*. Paris: Delagrave.

Delfante, Charles & Pelletier, Jean. 2009. *Plans de Lyon: 1350–2030, portraits d'une ville*. Lyon: S. Bachès.

de Serre, Olivier. 1600. *Le Théâtre d'agriculture et mésnage des champs*. Paris: Métayer.

Di Spaldro, Josée & Auger, Pierre & Ladouceur, Jacques. 2010. Le calque technoscientifique : un procédé néologique avantageux pour la terminologie française ? *Neologica* 4. 163–184.

Étiemble, René. 1964. *Parlez-vous franglais ?* Paris: Gallimard.

Fanfani, Massimo. 2000. Ancora su *carro bestiame*. *Lingua Nostra* 61. 32–34.

Forssman, Berthold. 2000. Baltisch-finnische Sprachkontakte am Beispiel der Adposition. In Ofitsch, Michaela & Zinko, Christian (eds.), *125 Jahre Indogermanistik in Graz*, 125–132. Graz: Leykam.

Fruyt, Michèle. 1986. *Problèmes méthodologiques de dérivation à propos des suffixes latins en* …cus. Paris: Klincksieck.

Furetière, Antoine. 1690. *Dictionnaire universel, contenant généralement tous les mots françois tant vieux que modernes, et les termes de toutes les sciences et des arts […]*.The Hague: Leers.

Görlach, Manfred (ed.). 2001. *A Dictionary of European Anglicisms: A Usage Dictionary of Anglicisms in sixteen European Languages*. Oxford: Oxford University Press.

Grevisse, Maurice. 1993. *Le Bon usage* [13th ed., by André Goose]. Paris: Duculot.

Guiraud, Pierre. 1965. *Les Mots étrangers*. Paris: Presses Universitaires de France.

Haspelmath, Martin. 2009. Lexical borrowing: concepts and issues. In Haspelmath, Martin & Tadmor, Uri (eds.), *Loanwords in the World's Languages: A Comparative Handbook*, 35–54. Berlin: Mouton de Gruyter.

Hatcher, Anna Granville. 1946. Le type *timbre-poste*. *Word* 2. 216–228.

Heine, Bernd & Kuteva, Tania. 2005. *Language contact and grammatical change.* Cambridge: Cambridge University Press.

Jenkins, Fred M. 1972. Double-noun compounds in contemporary French. *French Review* 46. 67–73.

Kowner, Rotem & Rosenhouse, Judith. 2008. The hegemony of English and determinants of borrowing from its vocabulary. In Rosenhouse, Judith & Kowner, Rotem (eds.), *Globally Speaking: Motives for Adopting English Vocabulary in Other Languages*, 4–18. Clevedon: Multilingual Matters.

Larousse = http://www.larousse.fr/dictionnaires/anglais-francais — http://www.larousse.fr/dictionnaires/francais-anglais (Accessed 1st semester 2016.)

Lombard, Alf. 1930. *Les Constructions nominales dans le français moderne*. Uppsala: Almqvist & Wiksell.

Loock, Rudy. 2013. The emergence of Noun + Noun constructions with a regressive order in contemporary French? *Journal of French Language Studies* 23. 259–279.

Loveday, Leo J. 1996. *Language Contact in Japan: A Socio-linguistic History*. Oxford: Clarendon Press.

Matras, Yaron. 2009. *Language Contact*. Cambridge: Cambridge University Press.

Noailly, Michèle. 1990. *Le Substantif épithète*. Paris: Presses Universitaires de France.

Oxford English Dictionary Online. (http://www.oed.com) (Accessed 1st semester 2016.)

Picone, Michael D. 1996. *Anglicisms, Neologisms and Dynamic French*. Amsterdam: Benjamins.

Robert & Collins = *Le Grand Robert & Collins*: *français-anglais, anglais-français*. Le Robert, HarperCollins. (Online resource, accessed 1st semester 2016.)

Rohlfs, Gerhardt. 1928. *Volkssprachliche Einflüsse im modernen Französisch*. Brunswick: Westermann.

Traşcă, Luminiţa-Irinel. 2012. Noun+noun constructions in written Romanian: What do *escrocii internet*, *tribunalul timiş* and *preşedintele sif* have in common? *Linguaculture* 2. 85–99.

TLF = *Le Trésor de la langue française informatisé.* (http://atilf.atilf.fr/) (Accessed 1st semester 2016.)

Volkovskaya, Elena. 2013. *La Productivité des noms composés en français du XVIIe au début du XXe siècle*. Toronto: University of Toronto. (Doctoral dissertation.)

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Between *Abi* and *Propjes*: Some remarks about clipping in English, German, Dutch and Swedish

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This paper discusses clipping in a few Germanic languages, English, Dutch, Swedish and German. It deals with older monosyllabic clipped forms as well as with recently borrowed disyllabic clipping patterns with final -o. Attention is also given to a more traditional pattern in which clipping goes hand in hand with diminutive or hypocoristic suffixation. The data discussed in this paper show on the one hand how output resemblances influence possible innovations and on the other hand how prosodic preferences may reinforce such innovations. It is also shown how crucial the role of the naive language user is when it comes to innovation. This language user borrows a coherent set of lexemes from a foreign language, subsequently finds out what possible system governs this set and introduces this pattern into his own language, where it becomes productive.

Keywords: *clipping, truncation, trochaic pattern, diminutives, hypocoristics*

1. Introduction

1.1 *Aim of the study*

In his introduction to morphology Bauer (2003: 40) deals with clipping briefly, which he defines as "the process of shortening a word without changing its meaning or part of speech". However, "clipping frequently does change the stylistic value of the word" (ibid.). Bauer puts forward a few examples as proof of the unpredictable and irregular way in which clipping operates:

(1) *binoc(ular)s*
deli(catessen)
(de)tec(tive)
(head-)shrink(er)
op(tical) art
sci(ence) fi(ction)

Bauer's conclusion is that "since the parts that are deleted in clipping are not clearly morphs in any sense, it is not necessarily the case that clipping is a part of morphology, although it is a way of forming new lexemes" (ibid.). Although Bauer's opinion that clipping is unpredictable and unsystematic was shared for a long time, the rise of prosodic morphology has changed it. "Clippings have often been claimed to be irregular and highly idiosyncratic (for example Dressler & Merlini Barbaresi 1994; Dressler 2000) but more recent work, for example Lappe (2007), has shown that such claims are ill-founded." (Bauer, Lieber & Plag 2013: 190). Jamet (2009) presents an overview of both positions.

This contribution demonstrates that clipping is less unpredictable and irregular, when one does not concentrate on the parts which are deleted, but looks at the resulting parts. In addition, it will be shown that clipping, being "a way of forming new lexemes", should be

considered as part of morphology, something which one may expect of a process that together with other "non-rule governed" processes is responsible for an extremely large part of the vocabulary innovation in English (Bauer 2001: 95; cf. Mattiello 2013: 217). Clipping is not restricted to English, as shown below. However, certain types of clipping became popular and frequent only recently (Hamans 2008: 152–153).[1] Borrowing played an important role in this development. However, how this process of borrowing took place and how youth and popular culture played an essential role in it is already discussed in Hamans (2004b) and therefore will not be repeated here.

This paper compares the pattern of older monosyllabic clipped forms in some Germanic languages with recently borrowed disyllabic clipping patterns, especially recent clippings with final *-o*. Since it has been claimed that there is a parallelism between clipping on the one hand and hypocorisms and diminutives on the other hand (Dressler & Merlini Barbaresi 1994; Lappe 2007), attention is also paid to corresponding hypocoristic and diminutive formations. Subsequently it is hypothesized that the language user may have borrowed a coherent set of disyllabic lexemes from a prestigious foreign language, American English, introduced this pattern into his own language, where it became a productive source of innovation. To show that clipping is not a process that is exclusive to Germanic languages, attention is also paid to clipping in French in the first part of this contribution.

Since the focus of this research is on prosodic aspects of clipping, no attention is paid to the semantic and pragmatic aspects (for these aspects, especially in comparison to diminutive formation, see Dressler & Merlini Barbaresi 1994; Merlini Barbaresi 2001). The data discussed in this paper come from the literature about clipped forms discussed in this contribution and from focused internet searches. All the examples presented have been attested more than once. Since the focus of the analysis is on formal aspects of clipping, the acceptability of the forms found has not been checked, nor has it been investigated whether the new words are accepted in a wider circle or whether they reach a certain degree of frequency. What is at issue here is the productive capacity to generate new forms only (cf. Štekauer 2002: 101).

Although the data are analyzed from a diachronic perspective, no investigation has been done into the exact first attestations of these forms, since clipped forms are usually seen as colloquial or highly informal,[2] which makes it nearly impossible to date them with any precision.

1.2 *Structure of the study and of the argument*

This contribution is structured as follows:

A. Section 2 offers an overview of types of clippings as found in English, followed by an overview of the corresponding types in some other languages (3.1). Most of the examples presented in 2 and 3.1 appear to be monosyllabic. However, in some languages, for instance

[1] According to Fandrych (2008), clipping and other non-morphematic word formation processes, such as blending and the formation of acronyms, have been particularly productive in English since the second half of the 20th century. Steinhauer (2015: 353) adds: "Clipping as a word-formation process is seen as a phenomenon of the late 19th and the 20th and 21st century." Nübling (2001: 168) also noticed that clipping is a recent phenomenon.

[2] See Szymanek's (2005) remark: "The method of clipping (or shortening) stands behind another large portion of new colloquial vocabulary."

French and German, disyllabic clipped forms are much more common than monosyllabic clippings. A short presentation of the types found in these languages is presented in 3.2.

B. Section 4 is devoted to the analysis of hypocoristics and diminutives in German, English and Dutch, since it is often claimed that hypocoristics/diminutives and clippings can be analyzed in similar terms. In 4.1 German hypocoristics with final *-i* are discussed. The reason to start with German is that the hypocoristic forms resemble significantly the disyllabic German clippings in *-i* discussed in 3.2. It turns out that there are two types of hypocoristic forms: a. names or nouns that are first truncated to a monosyllable and to which subsequent suffixation is applied; b. monosyllabic names or nouns to which a suffix is added.Corresponding English hypocoristics/diminutives are then analyzed in 4.2. The outcome is similar to that of German. Finally, in 4.3 the question is raised whether Dutch and Swedish hypocoristics and diminutives show the same pattern. The answer is predominantly negative.

C. In section 5 a recently emerged new type of English clipping, i.e. disyllabic forms with final *-o*, is discussed (5.2). It is demonstrated that three stages or types can be distinguished:

– pure truncation, ending in final *-o*;
– truncation, followed by suffixation with *-o*;
– no truncation; only suffixation of a monosyllabic word with *-o*.

This last type cannot be formally called clipping. However, since the formal and semantic features of this type resemble the formal and semantic features of the first two this last category will be taken together under the same label here. Moreover, since this last type seems to be the end point of a diachronic development in which the other two types can be described as earlier stages. In addition, these three stages or types appear to have one extra thing in common: they are trochaic.

The final part of this section, 5.3, tries to answer the question of where this new suffix came from. In section 6 final *-o* in some other languages is discussed. Since the development of final *-o* to a full-fledged suffix is clearly visible in French, this section starts with an analysis of French clipped forms ending in *-o* (6.1). In 6.2 clippings ending in *-o* in Swedish, Dutch and German are discussed. The description of Swedish clipped forms with final *-o* in 6.2.1 starts with a brief exposé of clipping in Swedish. Subsequently, the *-o* clippings are described and analyzed. The analysis leads to a result similar to that for English. In 6.2.2 Dutch clipped forms with final *-o* are examined. A development which is the same as that found in English can be established. Subsequently, Dutch disyllabic clipped forms are compared with monosyllabic clippings. It appears that two stages can be distinguished:

– an old CVC pattern;
– a more recent trochaic pattern with final *-o*.

In 6.2.3 German disyllabic clipped forms with final *-o* are discussed. Although there seemed no need for a new pattern in German, because of the already existing and well-functioning pattern of disyllabic clipped forms ending in *-i*, a few examples with final *-o* are attested. Since the first final *-o* examples are borrowings, this development points to a social factor: the power of a prestigious language.

D. Section 7 returns to the prosodic factor – the emergence of the preferred disyllabic, trochaic word form – and describes how this change may have taken place, especially in Dutch.

E. In section 8 the study concludes by stressing the importance of three different factors. First comes reanalysis. The development in, for instance, French clearly shows how the emergence of a productive final segment *-o* started with the recognition of a common segment *-o* in clipped forms. The following stage is reanalysis of this segment, which resulted in the emergence of a new suffix *-o*. Secondly, it is demonstrated how important the social factor is. It is because of borrowing that the new suffix popped up in languages such as Swedish, German and Dutch. However, this borrowing could only become successful since the receiving languages had a (new) prosodic structure which facilitated the process of borrowing. Finally, the borrowed coherent set became a productive source for innovation in the receiving languages in a way in which reinterpretation played a comparable role as in French or the language from which the forms have been borrowed, American English. This process of innovation results in a predictable and regular word formation process and thus must be a part of regular morphology.

2. Systematicity of clippings

2.1 *Types of clipping*

Although Bauer (2003) suggests that clipping is highly unsystematic, Marchand (1969: 441–448) distinguishes three main types: back, fore and middle clipping. Mattiello's classification roughly follows Marchand's format.

Examples of these three types are:

(2) Back clipping
sax < *saxophone*
nip(s) < *nipples*
tute < *tutor*

(3) Fore clipping
coon < *raccoon*
droid < *android*
vator < *elevator*

(4) Middle clipping,[3] or edge clipping
jams < *pyjamas*
quiz < *inquisitive*

[3] Actually, middle clipping is a confusing term, since it is not the middle part which is truncated, but just the two edges. However, middle clipping is used commonly for this kind of examples where the "middle of the word is retained" (Marchand 1969: 444; Steinhauer 2015: 357). When the middle part is really deleted, one may speak of median clipping (Jamet 2009: 10; Mattiello 2013: 75). However, examples such as *breathalyzer*, from *breath* and *analyzer*, make clear that one should rather describe this type of formations in terms of blending.

script < *prescription*

Instances of back clipping are numerous whereas examples of middle clipping are very rare (Mattiello 2013: 75). In addition, fore clipping is far less frequent than back clipping (Marchand 1969: 443; for a similar conclusion for German, see Balnat 2011: 44).[4] Usually the beginning of a word is retained, or in other words an ANCHOR-LEFT constraint operates. This constraint operates in all languages under discussion. Consequently, back clipping is also much more frequent than any other type in these languages (Mattiello 2013: 72).

The examples produced here are all nouns, which is not accidental. There exist a few examples of clipped adjectives, e.g. *fab* for *fabulous* and *preg* for *pregnant*, and for verbs *to dis* for *to disrespect*, but the vast majority of clippings are nouns.[5] What the examples also show is that there usually is a difference in register between the source word and the clipped form. Most of the resulting nouns belong to an informal or even slangy register or are part of a youth or student language or a specialized jargon. However, this is not an automatic result of clipping. See for instance:

(5) *sex* < *sexual activity*
movie < *moving pictures*
pub < *public house*

(6) *plane* < *aeroplane/airplane* (AE)
bus < *omnibus*
varsity < *university*

(7) *flu* < *influenza*
fridge < *refrigerator*
tec < *detective*

These examples show that clipped forms which have been around for a longer period[6] may become accepted at a certain point in time and so rise in standing from an informal register to a more accepted one.

2.2 *Quasi-unsystematic examples*

Since clipping is often considered to be unpredictable and irregular, the examples presented in the literature usually look unsystematic. However, the distinctions proposed by Marchand are quite useful to distinguish between the unsystematic examples presented by for instance Bauer (2003: 40): *binocs* and *deli* are instances of back clipping. However, both nouns are disyllabic, whereas most of the examples given so far are monosyllabic. *Deli* is trochaic. Disyllabic trochaic clipped nouns will be discussed extensively later. In *binocs* stress is on

[4] Diachronically the picture is different. Minkova (2018) showed that clipping in early English is restricted to fore clipping, which peaked between 1300 and 1600 and then decreased quite sharply. Back clipping was practically unattested until the end of Middle English, whereupon it rapidly became the dominant model.
[5] In Swedish clipped adjectives and even verbs are much more common (Leuschner 2006; Nübling 2001; Nübling & Duke 2007).
[6] Unlike many of the clipped words that will be discussed below, most of the examples presented in (5)–(7) are already cited in the 19th and early 20th centuries. A word such as *varsity* even goes back to the 17th century.

the second syllable and the noun is therefore not trochaic. When we compare the form *binocs* with similar clipped nouns such as *celeb*, *exec*, *exam* and *rehab* then the stress pattern of these data enforces the conclusion that back clipping should retain the leftmost stressed syllable of the source word, even if this syllable bears secondary stress only.[7] The *s* in *binocs* is a quasi-plural suffix, just as in *jams* and *specs*, and does not play any role in clipping.

The examples *tec* and *shrink* can be classified as instances of middle clipping, although the process that operated in *shrink* can also be described as normal back clipping of the part *shrinker.* In *op art*, only the word *optical* has been truncated. Here again standard back clipping applied. In Bauer's last example, *sci fiction* or *sci fi*, the first or both source words are truncated and as in most of the other examples of clipping from right to left, so once again do we have a form of back clipping.[8]

The examples presented so far show that: (i) the taxonomy of clippings leads to three subtypes, of which one, back clipping is most frequent in contemporary English; (ii) this taxonomy does not offer a clear and consistent pattern, which can describe all subtypes.

3. Clipping in some other languages than English

3.1 *Monosyllabic clipped forms*

As said, clipping is not exclusive to English. It also appears in other languages. Here, data from a few Western European languages[9] are presented. Since middle clipping is again very rare, only examples of back and fore clipping will be presented. As said before back clipping is much more frequent than fore clipping; this is also true in the languages discussed here:

German back clipping

(8) *Bib* < *Bibliothek* 'library'
Lok < *Lokomotive* 'locomotive'
Rep < *Republikaner* 'republican'

fore clipping[10]

(9) *Karte* < *Postkarte* 'postcard'
Platte < *Schallplatte* 'record'
Schirm < *Regenschirm* 'umbrella'

Swedish[11] back clipping

[7] Assuming that the preferred foot type for English is predominantly trochaic, the first syllable in these examples must be unparsed. The structure of *binocs* is *bi(nocs).*

[8] In *sci-fi* truncation is accompanied by a change in pronunciation of the second part from [fɪ] in *fiction* to [faɪ]. The same happened in *hi-fi*. The reason is analogy or rhyme with the diphthong of the first syllable.

[9] Although clipping in Spanish is well-documented (see for instance Rainer 1993: 679–701 and Piñeros 1998), no examples from Spanish will be presented and discussed here. The Spanish system is more or less similar to the French one.

[10] Steinhauer (2015: 358) does not consider the examples of German fore clipping presented here as clipped words, since truncation takes place at a word boundary. According to her fore clipping is very rare in German. The only example she gives is *Schland* from *Deutschland* 'Germany'.

[11] Two explanatory notes should be added to the Swedish data: The normal pronunciation of the first syllable of the Swedish word *pensionat* is with a final [ŋ] and with a nasalized vowel resembling [ɑ]; the spelling of the

(10) *livs* < *livsmedelbutik* ‘grocery’
mens < *menstruation* ‘period’
pang < *pensionat* ‘boarding house’

fore clipping
(11) *bil* < *automobil* ‘car’
nalle < *yuppienalle* ‘cell phone’
noja < *paranoia* ‘paranoia’

Dutch back clipping
(12) *buur* < *buurman* ‘neighbor’
Jap < *Japanner* ‘Japanese’
lab < *laboratorium* ‘laboratory’

fore clipping
(13) *bam* < *boterham* ‘sandwich’[12]
bus < *omnibus* ‘bus’
tuurlijk[13] < *natuurlijk* ‘naturally’

Frenchback clipping
(14) *bac* < *baccalauréat* ‘baccalaureate’
fac < *faculté* ‘faculty’
frig < *frigidaire* ‘morgue’

fore clipping
(15) *blème* < *problème* ‘problem’
cart < *rencart/d* ‘date’
dwich < *sandwich* ‘sandwich’

Most of the examples presented here are monosyllabic clippings. Since back clipping is much more frequent than fore clipping, it appeared impossible to find enough monosyllabic examples of fore clipping. Although the output forms are monosyllabic, this does not mean that the syllable which constitutes the resultant clipped noun matches with a syllabic constituency in the source word. For instance, phonologically, *Japanner* in (12) should be

clipped form is a phonetic transcription thereof. The example *nalle* is a shortening of *yuppienalle* ‘teddy bear’. Metaphorically this form developed a new meaning, ‘cell phone.’

[12] The form *bam* looks as if the middle segment *oterh* has been deleted. Such a process, which is extremely rare, is known as mid-clipping, median clipping or contraction. Median clipping, of course, is a way to describe the resulting form *bam*, just as *proctor* from *procurator* in English (Mattiello 2013: 75). However, it is much more attractive to describe *bam* as a process of fore clipping, which should have resulted in *ham*. This form should have coincided with an existing noun *ham* ‘ham’. Since clipped forms should be as transparent as possible semantically, because of their required semantic retrievability (Hamans 2008: 156–157), the clipped form *ham* is excluded, as it is a clear instance of blocking. Thus, for the onset of the output, another consonant of the source word must be selected. *Tam* and *ram* are existing Dutch words, so they are also blocked. Consequently, the only remaining option is *bam*.

[13] *Tuurlijk* is an adverb. There are a few more examples of nominal fore clipping, such as *net* < *internet*, *cello* < *violoncello*, *bas* < *contrabas* ‘double bass’ and *fax* < *telefax*. However, these forms may have been taken over directly from other languages as clipped nouns.

divided into *ja·pan·er* and *Republikaner* in (8) into *re·pu·bli·ka·ner*, which shows again that clipping does not take into account the syllabic or morphological structure of the source word. It is the well-formedness of the output which counts. That is why one of the effects of clipping may be the resyllabification of the segments of the source word.[14]

3.2 *Disyllabic clipped forms in German and French*

Whereas English and Dutch prefer monosyllabic clipped forms (Antoine 2000a: xxx; Fisiak & Hamans 1997: 161), disyllabic forms are much more frequent in French and German[15] (Antoine 2000b; Hamans 2004b: 164; Balnat 2011: 41; Nübling 2001: 177–178). Most of the French and German examples presented in (14–15) and (8–9) are commonly and frequently used words; however, they form a minority within the total of clippings of these two languages. Therefore, a few examples of the more common German and French pattern will be presented here.

German final *-i*

(16) *Abi* < *Abitur* 'finals'
Krimi < *Kriminalroman* 'detective story'
Uni < *Universität* 'university'

final *-o*

(17) *Demo* < *Demonstration* 'demonstration'
Kino < *Kinematograph* 'cinema'
Tacho < *Tachograph* 'tachograph'

In French disyllabic clipped forms ending in tensed vowels are quite common, although clipped forms with final *-o* are the most frequent. Fore clipping is much less frequent than back clipping. Therefore, the examples of fore clipping are supplemented with some non-disyllabic clipped forms.

French final *-a*

(18) *rata* < *ratatouille* 'ratatouille
fana < *fanatique* 'zealot'
prépa < *préparation* 'preparation'

final *-é*

(19) *ciné* < *cinéma* 'cinema'
pédé < *pédéraste* 'gay'
récré < *récréation* 'playtime'

[14] It goes without saying that the output forms should be well-formed possible words of the language. In addition, the output forms should be large enough so that their source words are retrievable (see Footnote 12). Moreover, since the clipped forms should be as transparent as possible, ambiguous output forms are disfavored (for an example, see Footnote 17).

[15] However, Ronneberger-Sibold (1995: 423) and Nübling (2001: 185–186) show that, despite an overwhelming majority of disyllabic clippings, the number of monosyllabic clippings still accounts for almost one-third of the total number.

final *-u*

(20) *alu* < *aluminium* ‘aluminium’
Sécu < *Sécurité Sociale* ‘social security’

final *-y*

(21) *psy* < *psychologue* ‘psychologist’
poly < *polycopié* ‘handout’

final *-o*

(22) *ado* < *adolescent* ‘adolescent’
braco < *braconnier* ‘poacher’
catho < *catholique* ‘Catholic’

(23) *aristo*[16] < *artistocrate* ‘aristocrat’
collabo < *collaborateur* ‘collaborator’
météo < *météorologie* ‘meteorology’

Final closed syllables are also possible:[17]

(24) *alloc* < *allocation* ‘benefit’
appart < *appartement* ‘apartment’
compil(e) < *compilation* ‘compilation’

(25) *imper* < *imperméable* ‘raincoat’
manif < *manifestation* ‘demonstration’
super < *supermarché* ‘supermarket’

Unlike in the previously discussed languages, feet are right-dominant in French – they are not trochaic, but iambic. That is why forms as those presented in (23) are acceptable in French. Back clipping remains, of course, left-anchored, but may stop when a well-formed stressed foot has been reached. The first syllables simply remain unparsed, which obviously violates the standard MAX constraint.[18] However, in (24) and (25), there is no violation of MAX, and back clipping leads once again to well-formed iambic stress feet.[19]

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[16] As far as our research shows, *aristo* is one of the first clipped forms that is attested in French. It goes back to the turbulent times just before the French Revolution of 1789.

[17] Ronneberger-Sibold (1995: 425) notes that, in French, shortenings resulting in open syllables are less preferred than in German, “whereas the diachronic development of French has been determined by a tendency towards open syllables (and a tendency towards shortening the word forms)”. An explanation may be that “if the final consonant of the clipped form would have been truncated, a homonym clash would arise.” For instance, a clipped form such as **mani* could have resulted from the nouns *manifestation* and *manipulation*, which correctly produce *manif* and *manip* as clipped forms without truncation of the final consonant. Such a homonymic clash would have happened in 2/3 of the cases of Ronneberger-Sibold’s corpus. German just has a preference for disyllabic clippings ending in an open syllable with a final long vowel (Nübling 2001: 177–178).

[18] MAX is a constraint which prevents deletions since it claims that all input segments have to appear in the output. MAX is the successor of the earlier constraint PARSE.
In *collaborateur* clipping could have resulted in a well-formed clipped noun *colla*. However, this form is semantically non-easily traceable to *collaborateur*, since a similar form *colla* may be truncated from *collation* ‘snack’, *collage* ‘collage’, *collant* ‘tights’, etc. As this and other examples show, semantic transparency of the output form also plays a significant role in clipping. However, avoidance of ambiguity is not an absolute result

Because of this difference in foot preference, French will not be discussed exhaustively here. Furthermore, French does not have much direct influence on neighboring languages anymore. French data will only be adduced to show that the processes which operate in the Germanic languages under discussion also appear in other languages.

While the difference in foot preference may explain the difference in preferred template for clippings – monosyllabic for English and Dutch against disyllabic for French – this cannot explain why disyllabic forms[20] are much more frequent than monosyllabic forms in German. This problem will be discussed hereafter.

Although traditional Dutch and English clipped nouns are mainly monosyllabic, most recent clipped forms in English and Dutch exhibit a disyllabic trochaic pattern. How this change from accepted minimal word template for clipped forms into a binary syllabic trochaic pattern occurred will be discussed in the remainder of this contribution.

As the examples (16)–(23) show, a number of clipped forms share a same final vowel, respectively *-o, -a, -i, -u*. Such a common segment plays an important role in the theory of distinctive morphology of Zabrocki (1962) and is called a distinctive morpheme or *confusivum*. Since the common parts in word lists such as those presented here are often much longer than one phoneme, Zabrocki introduced the term *distinctive morpheme*. When a certain confusivum, for instance *-o,* becomes frequent in similar environments and also shares semantic or other formal aspects, it can become psychologically real and subsequently claim a role in the production of new word forms, as will be demonstrated in this study (cf. Awedyk & Hamans 1992).

In this section the most common patterns of clippings in French, German and Dutch have been discussed. It appears that: (i) German and French share a disyllabic pattern with an final open syllable, whereas Dutch traditionally prefers CVC-clipped forms; (ii) such a disyllabic word form with a final open syllable filled with a same long vowel may lead to the recognition of a confusivum by the language user, when that identical final part turns up frequently.

4. Hypocoristics and diminutives

4.1 *German hypocoristics*

The German examples presented so far are all rather recent, which does not mean that clipping is a young phenomenon in German. On the contrary, Balnat & Kaltz (2006: 199) produce a couple of old examples such as *Lanz* from *Lanzknecht* ‘footman, soldier’ and *Ländi*

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of the transparency constraint – see for instance the English clipped form *vet*, which corresponds to the two nouns *veteran* and *veterinary*. As with other homonyms the context normally makes clear which meaning is meant. Since this contribution mainly concentrates on formal aspects, the semantic transparency constraint is not discussed here in detail.

[19] Why French accepts monosyllabic forms such as *crim(e)* ‘criminal police’ and *fric* ‘moolah’ from *fricassee* ‘ragout’ and the examples presented in (14), which violate a couple of constraints, will not be discussed here, since this contribution does not aim at a full description of French clipped words.

[20] In the literature about clipped forms in Swedish one can also find a few instances of recent disyllabic clippings: *mara* (< *maraton* ‘marathon’), *mille* (< *miljon* ‘million’), *moppe* (< *moped* ‘motorbike’) and *rehab* (< *rehabilitering* ‘rehab’).

from *Landjäcker* 'policeman', which have been attested as early as the 16th century.[21] The fact that there are hardly any data available for older periods of German is most likely due to the informal register to which clippings usually belong. Consequently, the standard written sources of older stages of German on which the handbooks are based hardly contain any clipped forms. In Modern German, however, the shortening of words is a normal and frequent process (Angst 2000: 210). Balnat (2011: 287) even claims that the productivity of clipping started to increase around 1900. From this moment on, "it is impossible to imagine life without clipped forms". As we will see later, this is in conformity with findings in other languages. However, this does not imply that clipping was an exotic and infrequent process before 1900. It is not well-attested and just as many of the recent clippings never exceed the threshold level to get more accepted,[22] and thus may disappear again, older clippings may have got lost and never made their way to the recorded lexicon.

Another interesting aspect of the examples Balnat & Kaltz quote is the final *-i* in *Ländi*. As has been shown in (16), final *-i* is quite common[23] in German clippings, much more than in Swedish or Dutch (cf. Leuschner 2006, 2008). In (16) the vowel *i* is part of the source words, whereas in *Landjäcker* there is no vowel but a glide [*j*].

Balnat (2011: 75–76) quotes a few other early examples with final *-i*, which originate in Southern German, especially in Bavarian German: *Spezi* from *Spezialfreund* 'special friend', with *i* from its source word, and *Gspusi* from *Gespons* 'sweetheart', with added *-i*. This final *i*, which is frequently used in the formation of names in Bavarian, "became popular again in the 1950s and later, especially in the formation of first names" (Balnat 2011: 76). Hamans (2015: 28–29) discusses examples such as:

(26) *Heini* hypocoristic form, from *Heinrich*
Ul(l)i *Ulrich*
Peti *Peter*
Willi *Wilhelm*

(27) *Schumi*, nickname of racing driver Michael Schumacher
Lewi, nickname of film director Hans-Jürgen Lewandowski
Gorbi, nickname of the Russian leader Michael Gorbachev
Honni, nickname of the DDR leader Erich Honnecker

(28) *Schmitti*, nickname of artist Jürgen Schmitt
Krammi, nickname of poker player Markus Kramm.

[21] Greule (2007) produces instances of clipped names, which have been attested much earlier than the 16th century.

[22] As the two corpus descriptions of Mattiello (2013, 2017) show, a great number of occasionally formed clipped words (and blends) disappear quickly. In order to become accepted, a word seems to have to reach a certain frequency and to exceed an unspecified threshold level (Seuren 2013).

[23] So far, there are no extensive corpora of clipped forms in different languages. However, a quick search through an internet corpus of German *Kurzwörter* 'clipped words' results in a great number of clipped words with final *-i* (http://www.mediensprache.net/de/basix/oekonomie/kurzwort/liste_kw.aspx). Köpcke (2002: 303), which is an overview of final *-i* clippings and *-i* derivatives in Modern German, describes a corpus of 205 *-i* formations, of which 42 can be described as clipped forms. For Dutch Hamans (1997a) and Hinskens (2001) only produced a very small number of corresponding Dutch examples. There are hardly any comparable Swedish clipped words.

What the examples in (26) show is that the adding of the hypocoristic suffix *-i* results in a preferred form, since names such as *Hein*, *Ul*, *Pe(e)t* or *Will* are virtually excluded in German. That is why clipping here must preferably be followed by suffixing. This is the same in (27).[24] In Modern German, just as in Dutch, Swedish and English, the trochee is the unmarked metrical pattern and this explains why in the examples of (26) and (27) a monosyllabic clipped form is dispreferred. The examples of (28), which are not instances of truncation followed by *-i* suffixation, but of *-i* suffixation only, show how dominant the trochaic character of Modern German is – it can even affect the form of names. Because of their trochaic pattern *Schmitti* and *Krammi* appear to be preferred and thus better forms of colloquial Modern German than *Schmitt* and *Kramm*.

Balnat (2011: 76) explains the productivity of *-i* formations by pointing to the immense popularity of English and especially of English names ending in *-y/-ie* in the 1950s in Germany, which was partly occupied by British and American troops. Even a movie star such as Rosemarie Albach chose a first name with an American flavor as her stage name – Romy Schneider,[25] with the then fashionable Anglo-American suffix *-y*. Köpcke (2002: 294) disagrees with this explanation since most of the new borrowed clipped forms do not have a parallel full form in English. He points, just as Greule (2006: 424–430) does, to the *-i* hypocoristic pattern, discussed before, as a starting point. However, what was even more important for the success of this new pattern is that Modern German is a predominantly trochaic language. This fact, already mentioned by Féry (1997), who even speaks about *Trochäuszwang* 'trochee coercion', greatly facilitated this process of suffixation. In addition, Köpcke (2002:300) demonstrates how important the trochaic character of Modern German is by pointing to the stress shift in clipped forms such as *Ábi* from *Abitúr* 'graduation from high school' and *Stúdi* from *Studént* 'student'.

This process is not restricted to names only, as the examples in (29) show:

(29) *Bubi* < *Bube* 'boy'
Mutti < *Mutter* 'mother'
Omi < *Oma* 'grandmother'
Vati < *Vater* 'father'

In these examples clipping operated first, and then was followed by suffixation, which appears to be obligatory in the examples *Mutti*, *Omi* and *Vati* as the unacceptability of **Mut*, **Om* and **Vat* demonstrates. Here, just as in the examples (26)–(28), the ending *-i* expresses endearment, which is not surprising, knowing that the *-i* suffix originally is a diminutive suffix (Würstle 1992: 54).[26] However, final *-i* became so frequent in informal language that the speakers of German gradually came to the implicit conclusion that *-i* was no longer only a

[24] Monosyllabic clipped names are not excluded in German – see for instance *Hans* or *Gert/Gerd* (cf. Kürschner 2014). However trochaic disyllabic names are dominant. For standard Dutch it is different: monosyllabic clipped names are quite common and fully acceptable. However, in the informal slang of traditional Amsterdam, disyllabic names are preferred: *Hansie* instead of *Hans* and *Pietje* instead of *Piet*.

[25] Her mother's name was (Magda) Schneider.

[26] Diminutives belong to what is usually called evaluative morphology. Quite often they not only express smallness but also familiarity and a positive or negative attitude towards the referent (see for instance Dressler & Merlini Barbaresi 1994 and Schneider 2013). Diminutive suffixes are widely used to express endearment. See for instance Polish, in which a plurality of diminutive suffixes is used to form common first names, for instance the suffix *-ek*: *Dariusz* > *Darek*, *Sławomir* > *Sławek* and *Tadeusz* > *Tadek*. Note that suffixation follows clipping here, just as in (26) and (27) and in the English and Dutch examples which follow.

marker of endearment, but it was at the same time a marker of possible clipped forms. Consequently, the suffix *-i* could be used in examples such as:

(30) *Fundi* < *Fundamentalist* 'fundamentalist'
Ossi < *Ostdeutsche* 'East-German'
Profi < *professioneller Sportler* 'professional sportsman'
Studi < *Student* 'student'

Again, clipping and subsequent suffixation operated here. However, it is no longer the feature *endearment* which is prominent here. Other semantic aspects of the diminutive suffix prevail, which is even more visible in:

(31)	*Blödi*	'stupid person'	*blöd*	adj.	'stupid'
	Gifti	'junk'	*Gift*	noun	'drugs'
	Hirni	'intellectual'	*Hirn*	noun	'brain'
	Schwuli	'gay' (noun)	*schwul*	adj.	'gay'

The examples of (31) can best be compared to those of (28). In neither case does clipping operate. It is only a matter of suffixation. However, the source words to which this suffixation process applies are monosyllabic. In this respect, they correspond with the clipped bases in (26), (27), (29) and (30). The result is again the preferred German phonological word, a disyllabic trochee.

In addition, these examples show that the semantic value of *-i* differs from the meaning of the source word. When the source word has a pejorative meaning, the suffix *-i* cannot change the overall meaning. Finally, examples (26)–(31) show that the suffix *-i* tends to imply the feature [+human],[27] whereas the final *-i* which originates from the source word, as in (16), does not include such a feature.

What the examples discussed here show is that two factors determine clipping in German:

– The Modern German preference for the unmarked metrical word pattern, the trochee, explains why most clippings are disyllabic. Unfortunately, there are not enough data available from earlier stages of German. Therefore, it is impossible to analyze older German clippings in detail. Whether in earlier stages of German the most frequent form of clipping also resulted in disyllabic forms or possibly in monosyllabic clipped forms is impossible to say. However, the instances of early name clippings discussed by Greule (2007) are often monosyllabic, which suggests that older patterns of clippings may have had a preference for monosyllabic forms, just as in English and Dutch, as will be shown in 4.2, 4.3 and 6.2.2.

– The frequency of final *-i* in clipped contexts brings the language user to the idea that forms ending in this final segment are associated and subsequently that this final *-i* has a special function and meaning. After all, many clipped nouns have one and only one formal aspect in common, that is this final *-i.* Such a common segment is called a confusivum by Zabrocki (1962). This confusivum subsequently becomes the most prominent marker of German

[27] This implication is not absolute, as a counterexample such as *compi* for *computer* shows. However, Köpcke's (2002: 303) figures confirm this tendency.

clipped forms. Since part of the meaning of this marker *-i* is that it signals informality and a certain degree of endearment (or other semantic aspects of the meaning of diminutive suffixes), these aspects may get more prominence and so the marker *-i* can also be used without clipping the base.

Final *-i* is not the only suffix which can be added to clipped forms in German, although it is the normal pattern (Féry 1997; Wiese 2001). Very recently final *-o* came up and displayed a similar behavior. However, before we can discuss this most recent development, we must first take a look at an English and a Dutch suffix more or less corresponding to German *-i*.

4.2 *English hypocoristics with final* -ie/-y[28]

In English one can easily find similar examples. The difference in spelling between *-ie* and *-y* has no systematic function or special meaning.

(32)	*telly*	< *television set*	(33)	*Aussie*	< *Australian*
	movie	< *moving pictures*		*commy*	< *communist*
	footy	< *football*		*nunky*	< *(n)uncle*

(34)	*hottie*	< *hot*	(35)	*slappy*	< *slap dick*
	dearie	< *dear*		*junkie*	< *junk*
	cutie	< *cute*		*hippie*	< *hip*

The difference between (34) and (35) lies in their connotation. The nouns in (34) are usually evaluated positively, whereas those in (35) are clearly negative. As said before this is normal for diminutives.[29]

Most of these forms are highly informal and date from the 20th century. However, a now obsolete form such as *nunky* was already attested in the 18th century, which shows that the process of truncation followed by suffixation in *-y* has a much longer history than only our informal days. Examples such as *junky* and *hippie* go back to the 1920s and 1960s[30] respectively.

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[28] Lappe (2007) discusses English clipped forms and hypocoristics in detail. Her point of departure is opposite to the analysis presented here. Hamans (2012) offers a discussion of her analysis. Merlini Barbaresi (1999) offers an analysis of the semantic and pragmatic aspects of the *-ie/-y* suffix. For a comparable, but considerably less frequent ending *-er(s)*, see Footnote 39 and the literature mentioned there.

[29] Antoine (2000b: xxxi–xxxii) discusses the formal and semantic aspects of final *-ie/-y* at length: "*-ie/-y* is a true suffix, with a hypocoristic meaning, which was first used in Scots; […] it was used very early in combination with clipping (*hussy*, *chappy*). This suffix is commonly used with clippings of Christian names (*Andy*, *Cathy*, *Eddie*, *Ronnie*, etc.) or of family names (*Fergie*, *Gorby*, *Schwarzy*, etc.). It is also used in the coining of nicknames (*Fatty*, *Froggie*, etc.) or of endearing terms (*dearie*, *sweetie*, etc.) […]. It can serve, as in the case of proper nouns, to obtain a hypocoristic diminutive (e.g. *pressie*, *shortie*, *woodie*, *biccy*, *chewie*, *hottie*, *preemie*) though such words can also be used humorously, or ironically, or even pejoratively. It is to be noted further that the suffix *-ie/-y* is added to clippings of words that already have negative overtones – the change of ending often results in an even more pejorative word; *-ie/-y* thus serves to enhance the negative trait in words that designate individuals whose social or political behaviour is frowned upon by the speaker, character traits or behaviours that are deemed to be and presented as pathological ones. The political lexicon offers instances of this, with words like *commie*, *lefty*, *rightie*, but other fields also do."

[30] *Hippie* was already attested in the 1940s, but the word only became common from the 1960s onwards.

What the data presented here demonstrate is a process similar to the one sketched above for German clipped nouns. First, clipping to a monosyllabic base form and subsequent suffixation go hand in hand, whereas later suffixation without prior clipping has become possible with monosyllabic adjectives and nouns.

However, there is one big difference between the German and the English process. There are hardly any clipped forms in English ending in a *-ie/-y* that originate in a clipped source word. One of the few examples is South-African English *combi*/*kombi* 'minibus', from *combination*.[31] The word *combi* itself, as in *combi oven*, also from *combination*, is of course one of the few examples with an original *-i* as well. So, influence from or reinforcement through a standard clipping process ending in *-i* is hard to imagine for English.

In examples (32) and (33) suffixation is obligatory after truncation, just as in most of the following examples of (36) and (37). Monosyllabic clipped forms such as **tel*, **Aus*, **nunk*, etc. are excluded. However, monosyllabic clipped forms as such were not excluded, as we will see. One may call the examples in (32–33) and the examples that follow in (36–36a) lexicalized, which they now are, but that does not explain how these forms have been "derived". Both clipping and suffixation must have occurred to produce the examples presented here.

As in German, English hypocoristics may be formed by truncation followed by suffixation:

(36)	*Andy*	< *Andrew*	(36a)	*Aggie*	< *Agnes*
	Gerry	< *Gerald*		*Izzy*	< *Isabella*
	Frankie	< *Franklin*		*Vicky*	< *Victoria*

It is clear that the predominantly trochaic character of English must have influenced the process – see for instance the stress shift in *Austrálian* > *Aússie* or *Victória* > *Vícky*. However, the unmarked trochaic pattern does not play a role with respect to stress shift only. The prosody also determined the overall outcome of the process: the preference for disyllabic trochaic forms prevented a monosyllabic output, such as **tel*, **Aus*, **nunk*, **And*, **Ag*, etc. The preference for disyllabic trochaic forms does not go so far as to trigger the removal of all existing monosyllabic words or names from the language. [32]

Semantically the suffix does not add much to the forms. The clipped form itself has already an endearment, familiar or similar reading, which may be the reason why the suffix *-ie/-y* can be added so easily to fulfill the prosodic preference:

(37)	*Chevrolet*	> *Chev*	> *Chevy*
	cigarette	> *cig*	> *ciggie*
	Stephen	> *Steve*	> *Stevie*

Semantically, there is not much difference between *Chev* and *Chevy* or between *cig* and *ciggie* or *Steve* and *Stevie*. However, it is not accidental that the difference between *Jack* and *Jacky* is that between male and female (see for instance the correspondence with the Dutch

[31] The first *combis*/*kombis* were produced by Volkswagen and were already called *Kombi* in German. These vehicles in which passengers and cargo could be transported – which is why they were called combination vehicles – became quite popular among hippies.

[32] As we will see in Section 7, the preferred minimal word form was not always trochaic. Existing monosyllabic clipped forms or names, such as *pub*, *gin*, *Will* and *Jack*, simply stayed in the lexicon.

words for 'boy' and 'girl', respectively *jongen*, from the adjective *jong* 'young' used as a noun, and originating from this noun plus a case ending, and *meisje*, from a diminutive of the noun *meid* 'maiden'; on the sexist use of diminutives see Schneider & Schneider 1991). This aspect will not be discussed further here since this study focuses on the formal aspects of clipping and diminution.

Unfortunately, there are not enough data available to sketch the historic changes in detail and with certainty. What is known is that a form such as *cig* turned up in the late 19th century, whereas *ciggie* made its entrance only more than half a century later, around 1960. A well-known form such as *hanky* (from *handkerchief*), however, also dates back to the late 19th century. This brings us to the assumption that the change from clipping only to clipping followed by suffixation is not an abrupt change but a gradual process of diffusion of innovation.

What is clear is that the few instances of early historic clipping that have been recorded are mainly monosyllabic.[33] The few disyllabic forms are rather new and mostly trochaic. Marchand (1969: 449) presents the following data:

(38)

coz	< *cousin* (1559)	*gent*	< *gentleman* (1564)
mas	< *master* (1575)	*chap*	< *chapman* (1577)
winkle	< *periwinkle* (1585)	*cock*	< *cockboat* (Shakespeare)
van	< *vanguard* (17th c.)	*quack*	< *quacksalver* (17th c.)
hock	< *hockamore* (17th c.)	*mob*	< *mobile* (17th c.)
cit	< *citizen* (17th c.)	*phiz*	< *physiognomy* (17th c.)
wig	< *periwig* (17th c.)	*sub*	< *sub-word* (17th c.)

The only three-syllable clipped form Marchand quotes from the 17th century is *plenipo* from *plenipotentiary*. Here the part *potentiary* is clipped and the result thereof is a word consisting of a monosyllabic open syllable *po*. Another example Marchand gives is trochaic *brandy*, from *brandywine* (17th c.). Here possible confusion with the existing word *brand* 'fire, flame' may have played a role. However, it shows that disyllabic trochaic clipped forms were not excluded.

For the 18th century Marchand produces about ten examples of which two are disyllabic: the trochaic *confab*, from *confabulation*, and *consols*, from *consolidated securities*. Of course, one does not have a clue how *consols* was pronounced. Nowadays two pronunciations are accepted.[34] The first with stress on the initial syllable, which results in a trochaic pattern, the other one with tress on the second syllable. Consequently this leads to a first syllable that may have been heavily reduced but anyhow is theoretically not parsed.

Subsequently Marchand (1969: 449) quotes extensively from Swift's remarks in his *Introduction to Polite Conversation* (1738). Swift's remarks show how fashionable clipping was in his days:

> *The only Invention of late Years, which hath any way contributed towards Politeness in Discourse, is that of abbreviating or reducing Words of many Syllables into one, by lopping of the rest… Poz for Positive, Mobb for Mobile, Phizz for Physiognomy, Rep*

[33] Kreidler (1979) shows that traditional English clipped forms are monosyllabic.

[34] http://www.dictionary.com/browse/consols. The digital Oxford Dictionary gives only a pronunciation with stress on the first syllable: https://en.oxforddictionaries.com/definition/consols.

for Reputation, Plenipo for Plenipotentiary, Incog for Incognito, Hyppo or Hippo for Hypocondriacks, Bam for Bamboozle, and Bamboozle for God knows what.

One can hardly imagine a better testimony to the historicity of clipping. Marchand also refers to examples from the 19th century and it is here where one comes across the first disyllabic forms ending in *-ie/-y* next to a plurality of monosyllabic forms and a first example ending in *-o, photo*. Marchand's 19th century *-ie/-y* data include:[35]

(39) *movie*, *talkie*,[36] *speakie*, *Jerry*, *commie*, *bolshie*

In addition, Marchand (1969) refers to Mencken's long list (1945) of "super-coinages" where one finds among countless other examples clipped nouns such as *pix* for *pictures*, *nabe* for *neighborhood*, *intro* for *introduction*, *preem* for *premier* and *ork* for *orchestra*. Most of these neologisms are found in popular American magazines of the first half of the 20th century. Marchand cannot help saying that the language of these magazines was "far ahead of normal usage", so as to emphasize the informal character of clipping on the one hand, and the growing popularity of the phenomenon, at least in printed form, on the other hand.

What the English data presented here show is that:

– clipping is an old phenomenon. Unfortunately, it is scarcely documented because it belongs to informal, spoken registers. However, scrutiny of dramatic texts and informal sources such as letters may possibly reveal more data.

– there seems to be an ongoing change in clipping preference. It looks like it starts with monosyllabic clipping first, followed by monosyllabic clipping plus *-ie/-y* suffixation and finally also simple *-ie/-y* suffixation without prior clipping. The upcoming preference for a trochaic pattern plays an important role in this change, as we will see later.

– the frequency of *-ie/-y* suffixation, after clipping to monosyllabic base forms, brings the language user to the conclusion that this suffix is not only a diminutive marker with all possible connotations, but also signals the informality, which is a characteristic feature of short, clipped forms. Subsequently the suffix can be used, as in the case of *deary*, to mark these new word forms as informal and affective, or in the case of *junkie* as informal and disapproving.

4.3 *Dutch diminutives with final* -je

The other two Germanic languages discussed here, Swedish and Dutch, do not have a suffix like German *-i* or English *-ie/-y*. Swedish hardly uses diminutive suffixes; diminutive forms in Swedish are instead expressed mainly by compounding or prefixation (Olofsson 2015). For Dutch, the situation is a bit more complicated (Hamans 2015: 30–31).

Hypocoristics ending in *-ie* are quite common in Dutch:

[35] Of the two "very early" examples presented by Antoine (2000b: xxxi), *hussy*, from Middle English *husewif*, indeed is very old (early 15th century). The other one is *chappy*. However, c*hap* is a late 15th-century clipped form. *Chappy* only became popular in the 19th century.

[36] It may be that *talkie* and *speakie* are not really clippings, but instances of suffixation of a verb accompanied by conversion. Most likely they are formed analogous to *movie*.

(40) *Alie* < *Adelheid*
Pleuni(e) < *Apollonia*
Nellie/*Nelly* < *Cornelia* or *Petronella*

(40a) *Bennie*/*Benny* < *Benjamin* or *Bernhard*
Freddie/*Freddy* < *Alfred* or *Frederik*
Harrie/*Harry* < *Hendrik*

The names under (40) refer to women, whereas the names in (40a) are exclusively male. The first two names in (40) have a regional flavor, whereas those under (40a) are more widely acceptable. It is not by accident that these male names also appear in an orthographic form that suggests an English influence. The same can be said about the form *Nelly*. A spelling *-y* is very un-Dutch, since the grapheme <*y*> is not part of the Dutch orthographic system. The corresponding Dutch grapheme is <*ij*>, which stands for the diphthong /ɛi/.

The regional character of hypocoristics ending in *-ie* corresponds with the highly regional and informal connotation of the diminutive suffix *-ie* in examples such as:[37]

(41) *bakkie* Standard Dutch *bakje* 'little bin'
tassie Standard Dutch *tasje* 'little bag'
stekkie Standard Dutch *stekje* 'little cutting of a plant'

Since the *-ie* suffix is considered highly regional and highly substandard, it never found its way into Standard Dutch. Therefore Dutch *-ie* cannot be compared to corresponding German or English endings.

However, the standard Dutch diminutive *-(t)je* may show a few examples which can be compared to the German and English data presented above:

(42) *bammetje*[38] *boterham* 'sandwich'
pootje *podagra* 'gout'
propjes[39] *propaedeuse* 'propaedeutics'

In all three examples the suffix does not have a diminutive meaning, but it signals informality. In these examples clipping operated first, and was immediately followed by

[37] The examples in (42), which are found in popular substandard songs and in an ironic cabaret text, are extensively discussed in Hamans (1997b).
[38] For a discussion of the clipping of *boterham* to *bam*, see Footnote 12.
[39] A paragogic *-s* is quite normal in informal clipped forms. See for instance English *champers* for *champagne* instead of the normal suffix *-er*, as in *sanger* for *sandwich*. An added *-s* ending is also common for proper names in Australian English, e.g. *Jules* for *Julie* (Collins 2012: 79). Also, in British English, a paragogic *-s* may show up incidentally; see for instance the nickname for the test match presenter Brian Johnson *Johnners*, whereas the normal suffix would have been *-er*, as in *Jagger* from *Jaguar* or *rugger* from *rugby* (p.c. John Charles Smith, Oxford). All these outputs include clipping. An *-er* "diminutive" suffix, mostly representing schwa, "has been noted to be in-group marking, particularly in academic institutions (…)" (Bauer, Lieber & Plag 2013: 393). This ending, which is also found in examples such as *footer* from *football*, *prepper* from *prep(aratory) school* and *fresher* from *freshman*, appears to follow a similar pattern as the ending *-ie/-y*: truncation that is followed by suffixation. However, "there seem to be too few forms to establish more detailed generalizations." (Bauer, Lieber & Plag 2013: 394). Marchand (1969) does not even mention this ending neither the parallel form with a paragogic *-s*.

suffixation. *Pootje*, which is now as obsolete as the disease itself, is already attested in the 17th century. *Propjes*[40] and *bammetje* are found in Dutch newspapers of the early 20th century and the second half of that century, respectively.[41] As expected, forms such as **prop* and **poot* are excluded in this meaning. After all, the predominantly trochaic character of Dutch prefers and enforces the disyllabic alternatives. A clipped noun *bam* has been attested incidentally. However, the normal form is *bammetje*, a trisyllabic form, which is the result of the complex Dutch diminutive formation system. Discussion of the Dutch diminutive system is beyond the scope of this article.[42]

The fact that **prop* and **poot* are excluded does not mean that monosyllabic clipped nouns did not appear in Dutch. On the contrary.[43] There are quite a few well-attested examples which all go back to the late 19th century or the early 20th century. Among these examples one finds frequently attested words such as[44]:

(43) *juf* < *juffrouw* 'female teacher' (attested 1866)
lab < *laboratorium* 'laboratory' (attested 1914)
Jap < *Japanner* 'Japanese person' (attested 1926)
bieb < *bibliotheek* 'library' (attested 1938)

The diminutive suffix can also be attached to full words to signal informality (cf. the examples given in (44)). The corresponding full forms without a suffix do not exist anymore in present-day Dutch or they belong to different parts of speech and have a non-related meaning.

(44) *dutje* 'nap' < ?*dut* or *dutten* (verb)
toetje 'dessert' < *toe* (variant form of preposition *tot* 'to')
tientje 'tenner' < *tien* (numeral)[45]

Dutch hypocoristics display a pattern similar to that of the German and English examples. First comes clipping, and then it is followed by suffixation. Next to the standard Dutch *-(t)je* one may find an alternative form -(*s)ke* originating from Frisian or eastern dialects as demonstrated in the names presented in (45–46):

(45) *Geeske*/*Geesje* < *Gezina*
Geerke/*Geertje* < *Geertruida*

[40] *Propjes*, just like *kantjes*, for *kandidaatsexamen* 'bachelor's exam', is outdated nowadays. These words belonged to an (old-fashioned) student's jargon.
[41] The earliest attestations can be found via http://www.delpher.nl/, a database in which more than 60 million pages of historic Dutch newspapers, journals and books are made available.
[42] See for a discussion of the Dutch diminutive system: Trommelen (1983), Booij (1995: 69–73) and Kooij & Van Oostendorp (2003: 165–175).
[43] See also Van der Sijs (2002), who shows that CVC-clippings, and thus monosyllabic clippings, were and still are rather frequent.
[44] The first attestations of the following data are found in http://www.etymologiebank.nl/. The 'etymologiebank' is a database in which all Dutch etymological dictionaries are included.
[45] Remarkably, Dutch also accepts longer forms with a diminutive suffix that signals informality and for which the forms without a suffix also have a different non-related meaning: *enkeltje* 'one-way ticket' (from *enkele reis* 'one way'), *onderonsje* 'informal chat' (from *onder ons* 'among us') and *twaalfuurtje* 'midday snack' (from *twaalf uur* 'noon').

Guurke/*Guurtje* < *Guurtruida*

(46) *Gerke* < *Gerhardus*
Pieke < *Pieter*
Bouke < *Boudewijn*

For some of these names a clipped form without a diminutive ending may exist in Dutch, but they are much rarer than the forms with a suffix. It is also striking that there are much more female names with a diminutive ending than male ones. This intriguing phenomenon is not further discussed here, as already announced in 4.2.

What may be concluded from the ample Dutch data presented here is that:

– clipping followed by suffixation with a diminutive suffix is a process of Modern Dutch that may be compared to the corresponding German and English processes. However, the Dutch process does not result in a disyllabic word with a long vowel as nucleus of the final syllable. The Dutch diminutive suffix ends in a schwa.

– since Swedish hardly works with diminutive suffixes and since standard Dutch diminutive suffixes do not lead to trochaic patterns with a long vowel in the second syllable, it is not very likely that there is a direct relation between diminutive formation and clipping suffixed with final *-o*.

– a process of clipping followed by suffixation already existed in Dutch in the 17th century. However, it is nearly impossible to give an accurate sketch of the subsequent or coexisting strata of the clipping process in Dutch because of a lack of data. So far it is clear that a pure process of clipping operated quite early, resulting in monosyllabic CVC forms such as *juf*. It is also evident that clipping could be followed by suffixation, as in the case of hypocoristics and *pootje*. Most of the clipped base forms of the lexemes that resulted from clipping plus suffixation do not exist independently, which suggests that suffixation became obligatory or at least preferred at a certain moment. Finally, the originally diminutive suffix can also be put after monosyllabic forms and then result in a new disyllabic word with a different meaning.
– the connotation of all the output forms of the process of clipping and/or suffixation is informal and familiar.[46]

5. A new pattern for clipped forms in English

5.1 *Neoclassical clippings*

Recently a new process of clipping emerged – disyllabic clipping ending in *-o*. All modern languages seem to contain neoclassical forms such as:

(47) *disco* < *discotheque*
stereo < *stereophonic record*

[46] An endearment interpretation for diminutives is quite common in Dutch: *kindje* from *kind* 'child' is often used as a sympathetic form of address. *Weertje* from *weer* 'weather' refers to nice weather only. However, the forms discussed in this section should not be described as terms of endearment only, they are also informal.

memo < *memorandum*

Most of these words have been borrowed from the culture in which the concept of the object was introduced first. So, for instance, the word *kilogram* was introduced in France at the end of the 18th century during the French Revolution,[47] when the metric system was officially adopted. Half-way through the 19th century the word was shortened to *kilo*. Less than ten years later it was borrowed by speakers of English. However, this type of example is not very interesting, since the pattern never became productive in other environments.

5.2 *English clippings ending in* -o

Another *-o*, however, became very productive in a different semantic context, as the English examples in (48–50) show.

(48) pure clipping
psycho < *psychopath*
homo < *homosexual*
dipso < *dipsomaniac*

(49) clipping + suffixation in *-o*
afro < *African (hairstyle)*
lesbo < *lesbian*
relo < *relative*

(50) suffixation in *-o* only
sicko < *sick*
kiddo < *kid*
creepo < *creep*

The examples presented here come mainly from American English or Australian English. Clipping started in Australian English earlier than in American English. In American English the process became productive after the Second World War, whereas in Australian English this had already happened at least a few decades earlier.[48] What we see nicely resembles the pattern discussed before. The forms in (48) have something in common – they share a same ending *-o*, and they all are [+human], [+negative] and [+informal]. In other terms these words share a confusivum *-o*, with which the semantic and stylistic features [+human], [+negative] and [+informal] are associated. That is why the language user considers this type of form as a coherent category intuitively. Note that the examples in (47) also formally share a

[47] For an extensive history of the introduction of the metric system, see Ronald Edward Zupko (1990), *Revolution in Measurement: Western European Weights and Measures Since the Age of Science*. Philadelphia: American Philosophical Society, Diane Publishing.

[48] Kidd, Kemp & Quinn (2011: 360) quote the diachronic overview of Australian English by Moore (2008), who indicates that the first instances of Australian English hypocoristics with both final *-ie and -o* were attested in the 19th century. The examples Jespersen (1942: 223) produces are all examples of Australian English. A number of his examples are still not yet attested in American English. However, as early as 1858 an example such as *dipso* was already attested in American English, just as *kiddo* in 1893, *wino* in 1915, *psycho* in 1927 and *pinko* in 1936. Some years later a wave of new formations in *-o* occurred, resulting in, among others, forms such as *fatso* (1944), *weirdo* (1955) and *sicko* (1977).

confusivum *-o*, but since there is no common semantic feature between these forms, this confusivum is less powerful than that in (48) and therefore never became productive. Since the language user interprets *-o* as a marker for a [+clipped], [+human], [+negative] and [+informal] noun, it is seen as a sort of suffix that can be added to short (clipped) forms. This is why it can subsequently be used in (49) as a suffix, after a process of clipping to a monosyllabic base form has applied. Just as we have seen with the diminutive suffix, finally this new suffix *-o* may also be added to monosyllabic words, resulting in perfect prosodic trochaic forms, as in (50). What should also be noticed is that all these three types consist of trochaic disyllables.

5.3 *Reinforcement by bilingual speakers*

As sketched so far, the origin of the new suffix *-o* and the extension of its applicability to non-clipped base forms is a matter of distinctive morphology, the theory of Zabrokci, of which the notion *confusivum* is a crucial part. However, the success of this new suffix is most likely strengthened by other factors as well. Which factors may have reinforced the innovation depends on the variety of English one studies.

5.3.1 *Australian English*

Australian English is extremely rich in clipped forms (Peters 2007, Bardsley & Simpson 2009). Both suffixes *-ie/-y* and *-o* were and are highly productive in this variety of English. In addition, Australian English also produces smaller categories of clipped nouns and names with a suffix *-a/-er* and the two suffixes mentioned in Footnote 39 (Collins 2012). However, only *-o* is of interest here. According to Taylor (2001) this *-o* has its origin in Irish. In Irish names, *Ó* means 'male descendant of' and is the normal "infix" between first name and surname. Given the large proportion of people of Irish origin in Australia and the fact that most of them came quite early – "by 1891, one quarter of the Australian population was of Irish origin" (Peters 2007:117) – it is not unlikely that this *Ó* has reinforced the innovation or has cooperated with it.

However, the earliest examples of Australian *-o* hypocoristics are signal words, i.e. cries with which hawkers announced their arrival: *milk-oh*, *rabbit-oh* and *bottle-oh*. These words marked the arrival of a milkman, rabbit hawker or bottle collector in a street. The *-oh* is simply the end of their loud cry for attention. All three words date from the second half of the 19th century (Peters 2007: 117).

These three factors – the confusivum *-o*, together with the Irish *Ó* and the final *-oh* of the shouting of hawkers – may have influenced and reinforced each other in such a way that Australian English now is a paradise for collectors of clipped words ending in *-o*.

For American English, however, a language variety in which *-o* suffixation is also quite productive, other explanations have usually been proposed. In a linguistic internet discussion, initiated and summarized by Mikael Parkvall (1998), suggestions have been made that the origin must be found in the influence of speakers of Italo-American or Latino-American English. Since the number of Italian immigrants in Australia is considerable, a possible explanation for Australian English *-o* via an Italo-Australian dialect cannot be ruled out either. A great number of Italian immigrants arrived just after the First World War in

Australia.[49] However, the bulk came only after the Second World War, which makes this explanation less probable. After all, one should not forget that Jespersen (1942) already quoted a couple of examples with final *-o* from Australian English. Whatever the case, the impact of bilingual speakers, and especially of speakers of the second and subsequent generations, in the emergence and popularity cannot be underestimated. First-generation immigrant speakers are usually not accepted as innovators of their new language. The features they introduce are seen as mistakes and errors and therefore they will not be accepted as innovators by speakers with a native fluency (Hamans 2004b: 184).

5.3.2 *Spanish or Italian influence in American English*

As said, the origin of the new suffix *-o* in American English has been explained by an Italian or Spanish influence, although Irish is not impossible if we consider the number of Irish immigrants in the US. However, it is not necessary to explain the emergence of the new suffix in the same way for both varieties of English.[50] Since in both cases the confusivum *-o* is the starting point, the other factors are only secondary causes.

For Spanish one points to the well-known case of Mock Spanish, as described by Hill (1998). Hill presents examples of affixation of Spanish grammatical elements to English words, e.g. *no problemo*, *el cheapo* and writes: "the definite article *el* and the masculine-gender suffix *-o* are used to give them a new semantic flavor, ranging from jocularity to insult, or to enhance an already somewhat negative connotation of the English word" (Parkvall 1998). Murray (1996) lists 422 Spanish loanwords in American English slang, of which quite a number end in *-o*. Among these words one finds:

(51)	*bato*	'user of drugs'
	bravo	'Mexican-American'
	burro (lit. *donkey*)	'smuggler of drugs'
	chico (lit. *boy*)	'Filipino' (derogative)
	cholo (lit. *half-breed*)	'Mexican'
	macho (lit. *male*)	'aggressive man'

This type of example with final *-o* may have promoted the growth and wealth of American English hypocoristic *-o* formations.

Also, in the language of Italo-Americans, one comes across arguments for the emergence, or better the support, of the new suffix *-o*. Correa-Zoli (1981: 247) describes the language of Italian-Americans, the largest linguistic and ethnic minority group in the US. In Italo-American, forms such as the following are frequent:

(52)	*il toblo*	from *trouble*
	il sciáuro	from *shower*
	il gioncáccio	from *junk*

Haller (1993) describes the Italian of the Italo-Americans and points to neologisms such as:

[49] For some general information about the migration of Italians to Australia, see http://www.italianlegacy.com /italian-migration-to-australia.html. More detailed information can be found in Castles, Alcorso, Rando & Varta (1992).

[50] An influence of Australian English on American English can be discarded as highly unlikely, just as an influence of Australian English on the other languages discussed here.

(53) *carro* from *car*
storo from *store*

However, neither Correa-Zoli nor Haller present forms with [+human] *-o*. On the other hand, the minimal prosodic word in Italian is disyllabic, has trochaic stress, and ends in a vowel, as Thornton (1996) demonstrated. From this preferred structure to a similar American English word pattern seems no more than a step, especially for speakers who have reached a certain level of bilingualism.

What should be understood from these quotations and examples is that nobody has been able to determine where the suffix originated precisely, but it is quite clear that, because of the multitude of bilingual speakers in whose languages there already existed a grammatical element which resembled final *-o*, there were enough secondary forces around to support the rise of the new suffix *-o*. That the new suffix, however, can also emerge without any circumstantial support will be shown in the next section.

6. The *-o* pattern in some other languages

6.1 *French*

In French one finds an innovation similar to that described for English. As always, it is difficult to date the first appearance of clipped forms, but most of them seem to be less recent than the English ones.[51] In addition, one finds clipped forms regularly in French newspapers,[52] something which is exceptional in English newspapers. The shortening of the name of the former president Sarkozy to *Sarko* or of the famous football player Cantona to *Canto* is quite normal, even in printed form, which shows that clipping is more socially accepted in French than in English. However, a negative connotation is as common in French as in English.

(54) pure clipping
clepto < *cleptomane* 'kleptomaniac'
nympho < *nymphomane* 'nymphomaniac'
phallo < *phallocrate* 'male chauvinist'

(55) clipping plus suffixation in *-o*
broco < *brocanteur* 'bric-a-brac dealer'
prolo < *prolétaire* 'prol'
stalo < *stalinien* 'stalinist'

(56) suffixation in *-o* only

[51] Frei (1929, reprinted 1982: 119) already describes the order of the innovation discussed here: first came clipping only, later followed by clipping plus suffixation. This proves that the French innovation dates to a period around or before the First World War. Maybe clipping was already productive in Australian English then, but in American English the innovation started decades later (see Footnote 48).
[52] This is not restricted to forms ending in *-o*. The former French prime minister *Balladur* quite often appeared as *Balla* in headlines. The name of prime minister *Raffarin* was often clipped as *Raff'*.

follo ‘idiot’ < *fou*/*folle* (adj.) ‘mad’
gaucho ‘leftie’ < *gauche* (adj.) ‘left’
lourdaud[53] ‘oaf, blockhead’ < *lourd* (adj.) ‘heavy’

For French, one cannot suggest an influence from Irish bilinguals, and also the chance that the language has been influenced by Italian and Spanish is very small, even when one realizes that the registers where the innovation is the most apparent are slangy registers. This shows that a distinctive morpheme or confusivum *-o*, referring to a person and carrying all the features of informality, truncation and negative meaning discussed before, is enough to let the language user start an innovation. Since French is not the main concern of this study, the French data will not be analyzed further. However, the French data (54)–(56) are presented here for two reasons: to show that clipping, clipping followed by suffixation and finally suffixation of monosyllabic source words, without prior clipping, are not restricted to Germanic languages, and that when the basic data are available language users tend to follow similar patterns that may become new and productive patterns for word formation. This pattern, which can be better dated for French than in other languages due to the availability of sources (see Footnote 51), can be summarized as follows:

– firstly, pure truncation, ending in final *-o*, which due to its frequency and shared formal, semantic and pragmatic connotations, invited the language user to recognize it as a common segment. Consequently, this common segment or confusivum has been reinterpreted as suffix-like.

– secondly, truncation, followed by suffixation with *-o*. This second stage is a first innovation.

– thirdly, no truncation at all but suffixation of a monosyllabic word with *-o*, which is a next innovative step.

6.2 *Innovation in Swedish, Dutch and German*

The pattern which is found in English and French can also be encountered in Swedish, Dutch and, to a lesser extent, German. These last three languages share a prosodic system with English. Lahiri, Riad & Jacobs (1999: 340) summarize the literature about the German prosodic system with the observation that “(…) the modern Germanic languages including English, Danish, Dutch, German and Swedish are considered to have left dominant, quantity-sensitive trochaic feet.” However, this does not mean that clipping operates in exactly the same way in all these languages. First, some Swedish examples will be presented.

6.2.1 *Swedish clippings ending in* -o

[53] In French there is a suffix *-aud*, which can be used to form proper names, later also common words, and which later acquired a pejorative connotation. For example: the proper names *Arnaud* and *Renaud*, common words such as *noiraud* ‘swarthy person’ and *sourdaud* ‘hard-hearing person’ and finally words with a pejorative meaning such as *salaud* ‘bastard’ and *maraud* ‘rascal’. This suffix *-aud* is pronounced [o]. Because of the homophony between this suffix and the suffix *-o* discussed here, and because of the equal negative association, the spelling *aud* may be used here.

Clipping in Swedish shows another picture than in the languages discussed so far. This is not the place to discuss the Swedish processes of clipping extensively.[54] However, it may be useful to give a few examples of the two common Swedish patterns. As the examples presented before as (10) and (11) show monosyllabic CVC-clipped forms are common in Swedish:

(10) *livs* < *livsmedelbutik* 'grocery'
mens < *menstruation* 'period'
pang < *pensionat* 'boarding house'

(11) *bil* < *automobil* 'car'
nalle < *yuppienalle* 'cell phone'
noja < *paranoia* 'paranoia'

However, next to this pattern there is also a disyllabic pattern in Swedish, which is even preferred (Nübling & Duke 2007: 234). However, this pattern does not end in an open syllable, as for instance in German, but is characterized by a suffix *-is*.

(57) *alkis* < *alkoholisk* 'alcoholic'
kompis < *kompagnon* 'mate'
skådis < *skådespelare* 'actor'

(58) *doldis* 'anonymous public figure, hider' < *dold* (adj.) 'hidden'
kändis 'public figure' < *kand* (adj.) 'well-known'
snackis 'snacker' < *snack* 'snack'

As the examples in (58) show the suffix is no longer restricted to previously truncated forms. Both types, those of (57) and (58), share a negative or at least emotional connotation and both belong to a colloquial style (Nübling & Duke 2007: 234–235). However, the productivity of the patterns differs considerably. Whereas truncation followed by suffixation, as in (57), is highly productive, examples with suffixation only, as in (58), are scarce.

Recently a new disyllabic pattern came up in Swedish (Parkvall 1998): disyllabic clippings with final *-o*. Examples are given in (59)–(61):

(59) pure clipping
alko < *alkoholist* 'alcoholic'
lycko < *lycklig* (adj.) 'lucky' (person)
psyko < *psykopat* 'psychopath'

(60) clipping plus suffixation in *-o*
aggro 'aggressive person' < *aggressiv* (adj.) 'aggressive'
hygglo 'nice person' < *hygglig* (adj.) 'reasonable'
pucko 'stupid person' < *puckad* (n.) 'puck'

[54] For more detailed descriptions of Swedish clippings and comparisons with other languages, see Nübling (2001), Leuschner (2006), Nübling & Duke (2007) and Lux (2016).

(61) suffixation in *-o* only
fetto 'fat person' < *fet* (adj.) 'fat'
fyllo 'drunkard' < *full* (adj.) 'full'
slappo 'lazy bump' < *slapp* (adj.) 'soft'

The process in Swedish looks precisely the same as that in English or French. So, one may explain this innovation in a similar way. It is the power of the distinctive morpheme, the confusivum *-o*, that triggers the innovation. But, as we will see in the discussion about the examples from Dutch which comes next, the influence of a foreign language may trigger the innovation or, better, may seduce or invite the speaker of the receiving language to start the innovation consciously or unconsciously.

Since the changes in clipping patterns in Swedish are less well-described than in Dutch or German there are not yet enough data to demonstrate how the language change really progressed. However, and this is something which should also be noted, all the Swedish data presented here are from the last 25 to 30 years. They cover the same period as in Dutch, as we will demonstrate now.

6.2.2 *Dutch clippings ending in* -o
(62) pure clipping
aso < *asociaal* 'antisocial'
impo < *impotent* 'impotent person'
pedo < *pedofiel* 'pedophile'

(63) clipping plus suffixation *in -o*
alto 'alternative person' < *alternatief*
depro 'depressed person' < *depressief*
saggo 'cantankerous person' < *chagrijnig*

(64) suffixation *in -o* only
lullo 'dumb person' < *lul* 'prick'
duffo 'dull person' < *duf* 'dull'
jazzo 'fan of old-style jazz music' < *jazz*

Again, we see the same pattern as in English, French and Swedish. However, here we have more data available to sketch a possible course of the history. The three examples presented in (62) are from the last three decades of the 20th century. Only two earlier forms ending in *-o* and referring to persons have been attested. The first one is the word *indo*, from *Indonesian*, which was in use for mixed Dutch-Indonesian people in the then-Dutch colony of the Dutch Indies, now Indonesia, before the Second World War. The other example is *provo*, from *provocateur*, for 'member of the *provo* movement in Amsterdam in the 1960s'. This word was consciously coined by the Dutch criminologist Buikhuisen in 1965.

Also, the forms in (63) and (64) appeared for the first time in the late 1970s and 1980s, together with some clear loanwords from American English youth language and slang such as *lesbo*, *macho* and *creepo*. In 1987, Kuitenbrouwer published a collection of clipped forms called *afko's*, which is a clipped form of *afkortingen* 'abbreviations' (or shortenings,

since the forms he collected are mostly clipped forms).[55] Many of his examples are clipped forms ending in *-o*, with or without subsequent suffixation, and some with *-o* suffixation only. This collection shows how influential American English examples were and how rapidly the innovation progressed.

A few years later Van der Sijs (2002) collected some older clippings. She found that traditional clipping followed a monosyllabic CVC pattern, as her examples in (65) show. Van der Sijs' examples, however, belong to a completely different register than the examples (62)–(64).

(65) *loods* < *loodsman* 'pilot' (already attested in the 17th century)
mum < *minimum* 'wink' (attested since 1940)
pas < *paspoort* 'passport' (already attested in the 17th century)
pon < *japon* 'nightie' (attested in the early 20th century)
prol < *proleet* 'plebeian' (already attested in the 1930s)
soos < *sociëteit* 'club' (already attested in the 19th century)
spijs < *amandelspijs* 'almond paste' (attested since 1875)
toffel < *pantoffel* 'slipper' (already attested in the 15th century).

From the data presented by Kuitenbrouwer (1987), Van der Sijs (2002) and Hamans (2004a, 2004b) one can only conclude that the borrowing of a couple of American English slang words by Dutch youngsters triggered a process of innovation in Dutch. These youngsters must have had a certain knowledge of English, although they cannot be considered bilingual. They immersed themselves in the universally attractive American English youth culture, pop music, films, shows, etc., picked up a couple of English slang words ending in *-o* and introduced them in their own youngsters' and street language. They must have recognized consciously or unconsciously how the clipping and subsequent suffixation operated and so they applied these linguistic techniques to new Dutch forms and introduced a new Dutch confusivum *-o* thereby. It is clear that these forms are perfectly well-formed, since they are trochaic and, from that moment on, the innovative power of the new process launched a language change.

Although there are not enough data available for Swedish one may assume that the process worked in a similar way in this language. In any case, it did so in German, as will be shown in the next section.

6.2.3 *German clipped forms with final* -o

In German, examples of pure clipping resulting in [+human] clipped forms ending in *-o* are scarce, due to the frequency of the competing suffix *-i*. Steinhauer (2000: 10) describes *-o* as a younger suffix". However, neoclassical [–human] clipped forms with final *-o* are common, as the examples in (17), *Kino*, *Demo* and *Tacho*, show.[56] A few [+human] examples of pure clipping with final *-o* are presented in (66):

(66) pure clipping
Homo < *Homoskesueller* 'gay'

[55] The form *afko* wonderfully shows how clippings follow the normal rules of Dutch syllable structure. Whereas *o* in *afkorting* is short or lax, the corresponding vowel in *afko* is long or tensed due to open syllable lengthening.
[56] According to Ronneberger-Sibold (2014: 280) the Limo-type shortening is the most transparent type of German clippings.

Pedo < *Pädophiler* ‘pedophile’
Psycho < *Psychopath* ‘psychopath’

(67) clipping plus suffixation in *-o*
Nudo < *Nudist* ‘nudist’
Prolo < *Proletarier* ‘proletarian’
Stino < *stinknormale Person* ‘absolutely normal person’

(68) suffixation with *-o* only
Heino < *Hein*(*z*), name of a popular singer[57]
Kloppo < *Jürgen Klopp*, beloved German football coach
Normalo[58]< ‘normal Person’ < *normal* (adj.) ‘normal’

The process in German is hampered by the productivity of the *-i* suffix. However, forms such as *Realo* (‘realist’) versus *Fundi* (‘fundamentalist’) are quite common in Modern German and show that *-o* clipping and suffixation have given foot to the ground in German. As Balnat (2011: 78) claims, this is due to a recent English influence.[59] Fleischer (1969: 210) and Angst (2000: 223) both describe the order in which the innovation took place: first came clipping, resulting in *-o* (or *-i*), later followed by clipping plus suffixation. This corresponds to the way the process is described here and it follows from the initial recognition of a common segment, confusivum, as described in Zabrocki’s theory.

What is demonstrated in section 6 is that two distinct factors play a role in the emergence of the suffix *-o*:

– borrowing: all the Germanic languages discussed here, borrowed the new final *-o* from another language. The source for the introduction of final *-o* in American English cannot be determined with certainty, but most likely it is Italian. The source for Swedish, German and Dutch is colloquial American English or maybe an American English slang. The first introduction of final *-o* in American English is most likely due to a certain level of bilingualism, whereas the youngsters who introduced final *-o* in Western European languages do not necessarily have to master English more or less fluently. Here the introduction seems to be a matter of contact.

– innovation: when a language contains enough identical formal elements with a similar function, the language user not only recognizes and identifies this segment as a confusivum, he or she also will assign a formal status to it; that of a suffix in this case. This leads to a new productive pattern of word formation. In addition, the acceptability of the new pattern is reinforced by a prosodic factor.

[57] The standard form *Heini* acquired a negative meaning (Balnat 2011: 74; Elsen 2011: 70) since the name became part of compounds such as *Trödelheini* ‘sorehead’. That is why the popular singer Heinz Georg Kramm (and others) called himself *Heino*, which has a positive connotation that is also due to the association with the old Germanic name *Haimo* or *Heimo*, which contains the element *Heim* ‘house’ and which means ‘calm, well-balanced ruler (of the house)’. The form *Heino* may also be influenced by Frisian boys’ names such as *Dodo, Eggo, Eicko, Enno, Friko, Habbo, Hano, Hemmo,* etc.
[58] The first syllable is not parsed.
[59] It cannot be excluded that the existing pattern of historical short names in German ending in *–o* such as *Ado, Emmo* and *Friddo,* reinforced the new pattern (cf. Greule 2007). However, since the frequency of these names is rather low in contemporary German such an explanation is not very plausible.

7. A possible explanation

7.1 *Change of prosodic pattern*

In the previous discussions, it was noted that older English and Dutch clippings show a monosyllabic CVC pattern whereas more recent disyllabic clippings follow a trochaic pattern, which is now the unmarked metrical pattern for languages such as English, Dutch, German and Swedish. This difference suggests that there has been a change in pattern preference, which indeed is the case.

The preferred Dutch minimal word has not always been trochaic. See for instance the late Middle Dutch process of apocope:

(69) *stemme* > *stem* 'voice'
vrouwe > *vrouw* 'woman'
kribbe > *krib* 'crib'

Stress used to fall on the first syllable of the older variants in (69), while the vowel in the second syllable was [ə]. At a later stage the whole second syllable got so reduced that it was deleted. At a certain moment in the history of Dutch, however, this process stopped and from then on trochaic patterns remained unaffected (Kooij & Van Oostendorp 2003: 80):

(70) *boete* > **boet* 'fine'
vrede > **vreed* 'peace'
knudde > **knud* 'mess'

From this very simplified sketch of the data one may feel inclined to suggest a change from a non-trochaic metrical pattern to a trochaic one for Dutch.

7.2 *Order of constraints*

A change of metrical preference from a monosyllabic minimal word to a disyllabic trochaic minimal word may explain why Dutch and English accepted the innovation of clipping. At the beginning of this study the constraint ANCHOR-LEFT is discussed briefly. This constraint explains why back clipping is the most frequent type of clipping and prescribes that the beginning, and only the beginning of the source word, must be retained. This is not the only constraint which plays a role. Another is TROCH, which describes the preference in English and Dutch for disyllabic trochaic minimal words. As described in Hamans (2012: 38) "the development from an initial stage with a preference for monosyllabic clippings to a later stage with an influx of *-o* (and *-i*) clippings" can be expressed in terms of reranking of constraints, as in (71) and (72):

(71) Classical system: ANCHOR LEFT >> TROCH

(72) New system: TROCH >> ANCHOR LEFT

However, the Dutch preference for disyllabic trochaic minimal words, which predates the

change from mono- to disyllabic clippings, has not yet become absolute, and most likely never will. This means that the language system displays some variability (which is not problematic in Prosodic Morphology). Unfortunately, there are not yet sufficient diachronic data to refine this very sketchy picture.

It goes without saying that the constraint ranking here has no relation with the last stage of the development sketched before, suffixation only as in for instance (64), *lullo*, *duffo* and *jazzo*. However, these examples became possible because of the preference for trochaic word forms. Left anchoring is vacuous here and thus does not play a role.

8. Conclusion

In this contribution it is shown that the language user notices resemblances between formally unrelated lexemes in his or her language use, identifies the common segments – the so-called confusiva – and subsequently reinterprets the structure of these lexemes because of these resemblances. This reanalysis can be the starting point for an innovation.

In addition, it is made plausible that a group of speakers with a restricted knowledge of a prestigious foreign language can borrow a set of lexemes of this language, subsequently analyzes the borrowed lexemes, detects a hidden structure in these lexemes, and then introduces this structure into its own grammar and lexicon. In this way finally the innovation that is made possible by the reanalysis sketched above starts. The data also showed that prosodic preferences may play a crucial role in facilitating this language change. In addition the data demonstrate that this language change is not an abrupt, absolute change. The actual synchronic system of the languages display some variability, showing that Schuchard (Spitzer 1922) is right when he claims that the language system is constantly in a state of transition, often caused by continuous processes of reinterpretation by language users.

Finally, it is demonstrated that the innovation led to a predictable and productive process of word formation, which implies that the process, clipping, must be considered an intrinsic part of morphology.

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References

Angst, Gerhard. 2000. Gefahr durch lange und kurze Wörter. In Stickel, Gerhard (ed.), *Neues und Fremdes im Deutschen Wortschatz: Aktueller Lexikalischer Wandel*, 210–238. Berlin: De Gruyter.

Antoine, Fabrice. 2000a. *An English-French Dictionary of Clipped Words*. Louvain-La-Neuve: Peeters.

Antoine, Fabrice. 2000b. *Dictionnaire français-anglais des mots tronqués.* Louvain-La-Neuve: Peeters.

Awedyk, Wiesław & Hamans, Camiel. 1992. The 'Poznan' School of Structural Linguistics. In Ahlqvist, Anders (eds.), *Diversions of Galway, Papers on the History of Linguistics*, 213–225. Amsterdam: John Benjamins.

Balnat, Vincent. 2011. *Kurzwortbildung im Gegenwartsdeutschen*. Hildesheim: Georg Olms Verlag.

Balnat, Vincent & Kaltz, Barbara. 2006. Zu einigen theoretischen Problemen der Kurzwortbildung. *Beiträge zur Geschichte der Sprachwissenschaft* 16. 195–218.

Bardsley, Dianne & Simpson, Jane. 2009. Hypocoristics in New Zealand and Australian English. In Peters, Pam, Collins, Peter & Smith, Adam (eds.), *Comparative studies in Australian and New Zealand English*, 49–69. Amsterdam: John Benjamins.

Bauer, Laurie. 2001. *Morphological Productivity.* Cambridge: Cambridge University Press.

Bauer, Laurie. 2003. *Introducing Linguistic Morphology*, second edition. Edinburgh: Edinburgh University Press.

Booij, Geert. 1995. *The Phonology of Dutch.* Oxford: Clarendon Press.

Castles, Stephen, Alcorso, Caroline, Rando, Gaetano & Varta, Ellie (eds.). 1992. *Australia's Intalians: Culture and Community in a Changing Society.* North Sydney: Allen & Unwin.

Collins, Peter. 2012. Australian English: Its Evolution and Current State. *International Journal of Language, Translation and Intercultural Communication* 1. 75–86.

Correa-Zoli, Yole. 1981. The language of Italian Americans. In Ferguson, Charles A. & Heath, Shirley Brice (eds.), *Language in the USA*, 239–256. Cambridge: Cambridge University Press.

Dressler, Wolfgang U. & Merlini Barbaresi, Lavinia. 1994. *Morphopragmatics. Diminutives and Intensifiers in Italian, German, and Other Languages.* Berlin: Mouton De Gruyter.

Dressler, Wolfgang U & Merlini Barbaresi, Lavinia. 2001. Morphopragmatics of diminutives and augmentatives: On the priority of pragmatics over semantics. Kenesei, Istvàn & Harnish, Robert M. (eds.), *Perspectives on semantics, pragmatics and discourse*: *A Festschrift for Ferenc Kiefer*, 43–58. Amsterdam: John Benjamins.

Elsen, Hilke. 2011. *Grundzüge der Morphologie des Deutschen.* Berlin: De Gruyter.

Féry, Caroline. 1997. *Uni* und *Studis*: Die besten Wörter des Deutschen. *Linguistische Berichte* 72. 461–489.

Fisiak, Jacek & Hamans, Camiel. 1997. Memento for a Lefto. In Ahlqvist, Anders & Čapková, Věra (eds.), *Dán do oide. Essays in memory of Conn R.Ó Cléirigh*, 157–163. Dublin: Institiúd Teangeolaíochta Éireann.

Fleischer, Wolfgang. 1969. *Wortbildung der Deutschen Gegenwartsprache*. Leipzig: VEB Bibliographisches Institut.

Frandrych, Ingrid. 2008. Submorphemic elements in the formation of acronyms, blends and clippings. *Lexis* 2.

Frei, Henri. 1929 (1982). *La grammaire des fautes : Introduction à la linguistique fonctionnelle. Assimilation et différenciation, brièveté et invariabilité, expressivité*. Genève: Slatkine Reprints. Reprint of the edition 1929 Paris-Genève: P. Geuthner.

Greule, Albrecht. 2006. Kurzwörter in historischer Sicht. *Neuphilologische Mitteilungen* 107(4). 423–434.

Haller, Hermann W. 1993. *Una lingua perduta e ritrovata: L'italiano degli italo-americani*. Firenze: La Nuova Italia.

Hamans, Camiel. 1997a. Clippings in modern French, English, German and Dutch. In Hickey, Raymond & Puppel, Stanisław (eds.), *Language history and linguistic modelling: A Festschrift for Jacek Fisiak on his 60th birthday*, 1733–1741. Berlin: Mouton de Gruyter.

Hamans, Camiel. 1997b. Im Westen nichts Neues: over de opkomst van een beschaafd morfeem. In Van Santen, Ariane & Van der Wal, Marijke (eds.), *Taal in tijd en ruimte*, 237–245. Leiden: SNL.

Hamans, Camiel. 2004a. From *rapo* to *lullo*. In Duszak, Anna & Okolska Urszula, (eds.), *Speaking from the margin: Global English from a European Perspective*, 69–75. Frankfurt am Main: Peter Lang.

Hamans, Camiel. 2004b. The relation between formal and informal style with respect to language change. In Dabelsteen, C.B. & Jorgensen, J.N. (eds.), *Languaging and Language Practicing* (Copenhagen Studies in Bilingualism vol. 36), 168–195. Copenhagen: University of Copenhagen, Faculty of Humanities.

Hamans, Camiel. 2012. From prof to provo: Some observations on Dutch clippings. In Botma Bert, & Noske, Roland (eds.), *Phonological Explorations: Empirical, Theoretical and Diachronic Issues*, 25–40. Berlin: De Gruyter.

Hamans, Camiel. 2015. De relatie tussen verkleinwoorden en verkortingen: Een vergelijking tussen drie West-Germaanse talen. *Brünner Beiträge zur Germanistik und Nordistik* 29(2). 21–33.

Hill, Jane H. 1998. Language, race, and White Public Space. *American Anthroplogist* 100(3). 680–689.

Hinskens, Frans. 2001. Hypocoristiche vormen en reductievormen in het hedendaagse Nederlands. *Neerlandica Extra Muros* 39. 37–49.

Jamet, Denis. 2009. A morphophonological approach to clipping in English. *Lexis* HS 1.

Jespersen, Otto. 1942. *A Modern English grammar. Part 4: Morphology*. Copenhagen: Ejnar Munksgaard.

Kidd, Evan, Kemp, Nenagh & Quinn, Sara. 2011. Did you have a *choccie bickie* this *arvo*? A quantitative look at Australian hypocoristics. *Language Sciences* 33. 359–368.

Kooij, Jan & van Oostendorp, Mark. 2003. *Fonologie: Uitnodiging tot de Klankleer van het Nederlands*. Amsterdam: AUP.

Köpcke, Klaus-Michael. 2002. Die sogenannte *i*-Derivation in der deutschen Gegenwartsprache: Ein Fall outputorientierte Wortbildung. *Zeitschrift für germanistische Linguistik* 30. 293–309.

Kreidler, Charles W. 1979. Creating new words by shortening. *Journal of English Linguistics* 13: 24–36.

Kuitenbrouwer, Jan. 1987. *Turbotaal: Van Socio-babbel tot Yuppiespeak*. Amsterdam: Aramith.

Kürschner, Sebastian. 2014. Familiennamen als Basis der Spitznamenbildung: Ein deutsch-schwedischer Vergleich. In Debus, Friedhelm, Heuser, Rita & Nübling, Damaris (eds.), *Linguistik der Familiennamen*, 441–473. Hildesheim: Georg Olms.

Lahiri, Aditi, Riad, Tomas & Jacobs, Haike. 1999. Diachronic prosody. In Harry van der Hulst (ed.), *Prosodic systems in the Languages of Europe*, 335–422. Berlin: Mouton de Gruyter.

Lappe, Sabine. 2007. *English Prosodic Morphology*. Dordrecht: Springer.

Leuschner, Torsten. 2006. Nederlands tussen Duits en …Zweeds. Grafonemische afkortingen (*Kurzwörter*) in taalvergelijkend perpsectief. In Hüning, Matthias, Vogl, Ulrike, Van der Wouden, Ton & Verhagen, Arie (eds.), *Nederlands tussen Duits en Engels: Handelingen van de workshop op 30 september en 1 oktober 2005 aan de Freie Universität Berlin*, 141–162. Leiden: SNL.

Leuschner, Torsten. 2008. Kurzwortbildung im Deutschen und Niederländischen. Grundlagen und Ergebnisse eines prototypischen Vergleichs. *Germanistische Mitteilungen* 67. 247–261.

Lux, Barbara. 2016. *Kurzwortbildung im Deutschen und Schwedischen: Eine kontrastive Untersuchung phonologischer und grammatischer Aspekte*. Tübingen: Gunter Narr.

Marchand, Hans. 1969. *The Categories and Types of Present-Day English Word-Formation*, second edition. Munich: C.H. Beck.

Mattiello, Elisa. 2013. *Extra-grammatical Morphology in English*. Berlin: De Gruyter Mouton.

Mattiello, Elisa. 2017. *Analogy in Word-Formation*. Berlin: De Gruyter Mouton.

Merlini Barbaresi, Lavinia. 1999. The Pragmatics of the "Diminutive" –y/ie Suffix in English. In Schaner-Wolles, Chris, Rennison, John & Neubarth, Friedrich (eds.), *Naturally! Linguistic studies in honour of Wolfgang Ulrich Dressler presented on the occasion of his 60th birthday*, 315–326. Torino: Rosenberg & Sellier.

Minkova, Donka. 2018. English word clipping in a diachronic perspective. In Petré, Peter, Cuykens, Hubert & D'hoedt, Frank (eds.), *Sociocultural Dimensions of Lexis and Text in the History of English*, 227–252. Amsterdam: John Benjamins.

Murray, Thomas E. 1996. Spanish loanwords in American English slang. In Rodríguez González, Félix (ed.), *Spanish loanwords in the English Language: A tendency towards hegemony reversal*, 105–137. Berlin: Mouton de Gruyter.

Nübling, Damaris. 2001. *Auto – bil, Reha – rehab, Mikro – mick, Alki – alkis*: Kurzwörter im Deutschen und Schwedischen. *Skandinavistik* 31(2). 167–199.

Nübling, Damaris & Duke, Janet. 2007. Kürze im Wortschatz skandinavischer Sprachen: Kurzwörter im Schwedischen, Dänischen, Norwegischen und Isländischen. In Bär, Jochen A., Roelcke, Thorsten & Stenhauer, Anja (eds.), *Sprachliche Kürze. Konzeptuelle, strukturell und pragmatische Aspekte*, 227–263. Berlin: De Gruyter.

Olofsson, Arne. 2015. Swedish. In Grandi, Nicola & Kortvelyessy, Livia (eds.), *Edinburgh Handbook of Evaluative Morphology*, 306–309. Edinburgh: Edinburg University Press.

Parkvall, Mikael. 1998. O-words: Colloquial/slangy words ending in <-o>. *Linguist List* 9.360. (https://linguistlist.org/issues/9/9-360.html) (Accessed 2018-07-12).

Peters, Pam. 2007. Australian English as a regional epicenter. In Hoffmann, Thomas & Siebers, Lucia (eds.), *World Englishes: Problems, Properties and Prospects*, 107–126. Amsterdam: John Benjamins.

Piñeros, Carlos Eduardo. 1998. *Prosodic Morphology in Spanish: Constraints Interaction in Word Formation*. Ohio State University. (Doctoral dissertation).

Rainer, Franz. 1993. *Spanische Wortbildungslehre.* Tübingen: Niemeyer.

Ronneberger-Sibold, Elke. 1995. On different ways of optimizing the sound shape of words. In Andersen, Henning (ed.), *Historical Linguistics 1993*, 421–432. Amsterdam: John Benjamins.

Ronneberger-Sibold, Elke. 2014. Tuning morphosemantic transparency by shortening: A cross-linguistic perspective. Rainer, Franz, Gardani, Francesco, Luschützky, Hans Christian & Dressler, Wolfgang U. (eds.), *Morphology and Meaning*: *Selected papers from the 15th International Morphology Meeting. Vienna, February 2012*, 275–288. Amsterdam: John Benjamins.

Schneider, Iris & Schneider, Klaus P. 1991. 'Ach Kindchen, davon verstehen Sie nichts!' Über den sexistischen Gebrauch deutscher Diminutivformen. In Feldbusch, Elisabeth, Pogarell, Reiner & Weiss, Cornelia (eds.). *Neue Fragen der Linguistik. Akten des 25. Linguistischen Kolloquiums, Paderborn 1990.* Vol. 2: *Innovation und Anwendung*, 169–174. Tübingen: Niemeyer.

Schneider, Klaus P. 2013. The truth about diminutives, and how we can find it: Some theoretical and methodological considerations. *Skase, Journal of Theoretical Linguistics* 10(1). 137–151.

Seuren, Pieter. 2013. Frequency linguistics – 2. (https://pieterseuren.wordpress.com/2013/04/) (Accessed 2018-07-12).

Sijs, Nicoline van der. 2002. Verkortingen. *Onze Taal* 71: 210–211.

Spitzer, Leo (ed.). 1922. *Hugo Schuchardt-Brevier.* Halle: Max Niemeyer.

Štekauer, Pavol. 2002. On the theory of neologisms and nonce-formations. *Australian Journal of Linguistics* 22 (1). 97–112.

Steinhauer, Anja. 2000. *Sprachökonomie durch Kurzwörter: Bildung und Verwendung in der Fachkommunikation*. Tübingen: Gunter Narr.

Steinhauer, Anja. 2015. Clipping. In Müller, Peter O., Ohnheiser, Ingeborg, Olsen, Susan & Rainer, Franz (eds.), *Word-Formation: An International Handbook of the Languages of Europe*, Vol.1, 352–363. Berlin: De Gruyter Mouton.

Szymanek, Bogdan. 2005. The latest trends in Englsih word-formation. In Štekauer, Pavol & Lieber, Rochelle (eds.), *Handbook of Word-Formation*. 429–448. Dordrecht: Springer.

Taylor, Brian. 2001. Australian English in interaction with other Englishes. In Blair, David & Collins, Peter (eds.), *English in Australia*, 317–340. Amsterdam: John Benjamins.

Thornton, Anna. 1996. On some phenomena of prosodic morphology in Italian: Accorciamenti, hypocoristics and prosodic delimitation. *Probus* 8. 81–112.

Trommelen, Mieke. 1983. *The syllable in Dutch. With special reference to diminutive formation.* Dordrecht: Foris.

Wiese, Richard. 2001. Regular Morphology vs. Prosodic Morphology? The Case of Truncation in German. *Journal of Germanic Linguistics* 13. 131–177.

Würstle, Regine. 1992. *Überangebot und Defizit in der Wortbildung: Eine kontrastive Studie zur Diminutivbildung im Deutschen, Französischen und Englischen*. Frankfurt/M: Peter Lang.

Zabrocki, Ludwik. 1962. Phon, Phonem und distinktives Morphem. *Biuletyn Fonograficzny* 5. 59–87.

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Affix borrowing and structural borrowing in Japanese word-formation

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The wealth of English loanwords in the contemporary Japanese lexicon is well-known and constitutes a traditional research topic in Japanese linguistics. In contrast, there are very few previous studies that systematically investigate Japanese word-formation material and schemas copied from English. As a preliminary attempt to fill the gap, this paper examines the borrowing of three different English grammatical items: the adjectivalizing suffix **-ic**, *the possessive pronoun* **my**, *and the preposition* **in**. *While the first case is affix-to-affix borrowing, the latter two cases are borrowing of grammatical words as word-formation items. First,* **-ic** *is borrowed as an adjectivalizing suffix, which, however, differs from the model in the type of adjectives produced. Next, the copy of* **my** *functions as a prefix that produces nouns with an anaphoric nature, which are reminiscent of* **self-N** *forms in English. The most complicated of the three are nominal modifiers involving the copying of* **in**. *In some cases, the model lends its surface form only; in other cases, its form and head-first structure are both replicated. To account for the qualitative mismatches between the donor model and recipient copy, the authors emphasize certain typological differences between the two languages involved.*

Keywords: *language contact*; *English*; *Japanese*; *word-formation*; *grammatical borrowing*; *word syntax.*

1. Introduction

The topic of this paper is the influence of English on contemporary Japanese word formation and word syntax. Let us start with the lexicon. As succinctly introduced in Shibatani (1990: 140–157) and Hasegawa (2015: 61–74), the Japanese lexicon consists of native Japanese words, Sino-Japanese words, foreign words, and combinations of them. Onomatopoeia also abounds. Foreign words or *gairaigo* (lit. 'foreign coming words') are loanwords from foreign languages other than Chinese. The distinction is reflected in orthography. Japanese uses a mixed writing system consisting of *kanji*, logographic writing, and *kana*, phonographic writing. Kana consists of *hiragana* and *katakana* (see Sampson 1985: 172–193; Shibatani 1990: 125–131; Hasegawa 2015: 43–57). Basically, native and Sino-Japanese lexemes are written in kanji and hiragana, while foreign words are written in katakana. Below, nouns, verbs, and adjectives are illustrated in the Romanized form (the first line) and original form (the second line), followed by semantic translation (the third line).[1]

(1) a. Native *tamago* *yaku* *furui*

[1] Hasegawa (2015: 55–57) adopts a slightly modified version of the Hepburn System for Romanization. We follow her system. In glossing, we use the following abbreviations: ACC (accusative), COMP (complementizer), DAT (dative), NOM (nominative), GEN (genitive), OBL (oblique), PRS (present tense), PST (past tense), Q (question particle), TOP (topic).

	卵 or たまご	焼く	古い
	‘egg’	‘to burn, fry’	‘old’
b. Sino-Japanese	*gyōza*	*nenshō*	*ganko*
	餃子	燃焼	頑固
	‘pot sticker’	‘to burn’	‘stubborn’
c. Foreign	*furūtsu*	*rimaindo*	*yunīku*
	フルーツ	リマインド	ユニーク
	‘fruit’	‘remind’	‘unique’

Members of each lexical stratum combine with each other to produce complex words. Etymologically hybrid combinations are also possible, as in:

(2) a. Native + S-J: *natsu* ‘summer’ + *fuku* ‘clothes’ → ‘summer apparel’
b. S-J + native: *kan* ‘can’ + *kiri* ‘cut’ → ‘can opener’
c. Native + foreign: *nama* ‘raw’ + *hamu* ‘ham’ → ‘uncured ham’
d. Foreign + native: *kōhī* ‘coffee’ + *mame* ‘bean’ → ‘coffee beans’
e. S-J + foreign: *yasai* ‘vegetable’ + *sarada* ‘salad’→ ‘vegetable salad’
f. Foreign + S-J: *supīdo* ‘speed’ + *ihan* ‘violation’ → ‘speed violation’

(Hasegawa 2015: 62)

Kanji and katakana co-occur within words of the types (2c-f), as in: (2c) 生ハム, (2d) コーヒー豆, (2e) 野菜サラダ, and (2f) スピード違反. For sociolinguistic, historical, lexicographical, and/or phonological aspects of foreign words, see Loveday (1996), Miller (1998), Stanlaw (1998; 2004), Ishiwata (2001), Yamada (2005), Kobayashi (2009), Schmidt (2009), Hashimoto (2010), Kinsui (2010), Irwin (2011), Jinno-uchi et al. (2012), and Okimori & Akutsu (2015). As a general recognition of contact linguistics, sociolinguistic and historical-cultural factors are important for understanding the flood of English loanwords into the Japanese lexicon, yet those factors are beyond the scope of this paper. We refer interested readers to the studies cited above.

Next, we give a general description of Japanese morphology. Typologically, Japanese, whose genetic affiliation is under debate, is an agglutinative head-final language. In sentences, nouns are followed by case particles. Verbs are also expanded to the right with negation, tense, aspect, and modality markers. Native verbs such as *yaku* in (1a) can carry these grammatical morphemes on their own, employing different bound stems. Sino-Japanese and foreign items with verbal lexical semantics, such as *nenshō* in (1b) and *remaindo* in (1c), need the light verb *suru* ‘do’ to formally realize tense, aspect, and modality, so that they are called verbal nouns. Adjectives are similar to verbs. Native adjectives such as *furui* in (1a) directly combine with negation and tense markers, while Sino-Japanese and foreign items such as *ganko* in (1b) and *yunīku* in (1c) are adjectival nouns.[2] In the domain of word-formation, complex words (compounds and derivatives) are generally right-headed (Kageyama 1982; Namiki 1982, 2001; Shimada 2017), but dvandvas (Shimada 2013), blends

[2] For a general introduction to the categories of adjectival nouns (AN) and verbal nouns (VN), see Shibatani (1990: 215–217), Tsujimura (2014: 137–142), and Hasegawa (2015: 64–67). For technical discussions on AN, see Ohkado (1991), Nishiyama (1999), and Backhouse (2004), among others.

(Kubozono 1995), and certain compounds (Sugioka 2002; Kageyama 2009: 514) can be headless or left-headed. The following illustration of productive patterns is meant to give a general idea of Japanese word-formation:

(3) N1 + N2 compounds
  a. N2 = entity noun — (2a) *natsu-fuku* 'summer apparel'; (2c) *nama-hamu* 'uncured ham'; (2d) *kōhī-mame* 'coffee beans'; (2e) *yasai-sarada* 'vegetable salad
  b. N2 = eventive noun — (2b) *kan-kiri* (lit. can-cutting) 'can opener'; (2f) *supīdo-ihan* 'speed violation'

(4) V1 + V2 compounds
  a. V2 = lexical verb — *korogari-ochiru* (lit. roll-fall) 'roll down'
  b. V2 = aspectual verb — *kaki-hajimeru* (lit. write-begin) 'begin to write'

(5) Class-changing suffixation
  a. A > N — *marui* 'round' → *maru-**sa***, *maru-**mi*** 'roundness'
  b. N > A — *kodomo* 'child' → *kodomo-**ppoi*** 'childish'
  c. Causativization — *taberu* 'eat' → *tabe-**saseru*** 'cause to eat'

(6) Sino-Japanese prefixation: ***zen**-daitōryo* (lit. former president) 'ex-president'

(7) Dvandva compounds
  a. N + N *nichi-bei* (lit. Japan-USA) 'Japan and USA'
  b. V+ V *imi-kirau* (lit. detest-hate) 'detest'
  c. A + A *hoso-nagai* (lit. thin-long) 'long and narrow'

(8) Shortening
  a. Blending — *apāto* 'apartment' + *manshon* 'condominium' → *apaman* 'a generic term for apartments and condos'[3]
  b. Clipping — *intorodakushon* 'introduction' → *intoro*

For general descriptions of word-formation elements in foreign lexical strata, see Morioka (1985; 1994: 201–227), Loveday (1996: 138–156), Irwin (2011: 137–157), and Okimori & Akutsu (2015).

As stated in the abstract, this paper closely examines AFFIX-BORROWING (Seifart 2015) and STRUCTURAL BORROWING (Renner 2018, this volume) in word-formation between English, the donor language, and Japanese, the recipient language. Renner distinguishes the two types of grammatical borrowing based on the involvement of linguistic material. Unlike affix borrowing, structural borrowing is concerned with the influence of abstract word-formation schemas found in the donor language. To quote his definition:

> *Structural borrowing in word-formation is thus defined here as the increase or decrease in frequency of use of an abstract word-formation schema caused by*

[3] This word was coined by a rental housing company as its shop name.

> *language contact and includes the new availability of a virtually unknown schema (i.e. a change from a null to a non-null frequency, or structural borrowing* sensu stricto*).*

Renner's distinction is in line with the MAT (matter) vs. PAT (pattern) distinction in contact linguistics. Based on large-scale cross-linguistic research on the borrowing of grammatical words and bound items, Matras & Sakel (2007a) confirm the usefulness of separating the formal and functional sides of the donor language's model construction (see Matras & Sakel 2007b: 841–847 for the history of the concepts of MAT vs. PAT in contact linguistics). To quote from Sakel (2007: 15):

> *MAT and PAT denote the two basic ways in which elements can be borrowed from one language into another. We speak of MAT-borrowing when morphological material and its phonological shape from one language is replicated in another language. PAT describes the case where only the patterns of the other language are replicated, i.e. the organization, distribution and mapping of grammatical or semantic meaning, while the form itself is not borrowed. In many cases of MAT-borrowing, also the function of the borrowed element is taken over, that is MAT and PAT are combined. In other instances, MAT and/or PAT are borrowed, but deviate considerably in their form or function from their original source.*

Because affixes are combinations of matter and pattern, affix borrowing belongs to MAT-borrowing with or without corresponding PAT, while structural borrowing belongs to PAT borrowing (without MAT). Notice that Matras & Sakel (2007b) use the term *replication* rather than *borrowing*. This probably reflects the general recognition that "a copy is never identical with the model. The new terminology highlights code-copying as an essentially creative act: speakers under external influence shape their language in novel ways" (Johanson & Robbeets 2012: 4–5). If the donor's MAT is combined with the recipient's PAT, or vice versa, what is gained is indeed a novel linguistic possibility. Although this paper retains the traditional terminology, the discussion to be presented below speaks for the validity of the MAT vs. PAT distinction in word-formation and the working of a certain form-function matching process as a way to incorporate foreign grammatical items. Sections 2 to 4 present three cases of seemingly random patchwork between MAT and PAT from English and Japanese. As a possible underlying factor for how MAT and PAT are combined in the novel word-formation construction, we pay attention to relevant typological differences between the two languages involved. Section 5 is the conclusion.

2. Affix-to-affix borrowing: the derivational suffix *-ic*

In the first case, the MAT of an English derivational suffix is combined with the PAT of Japanese denominal adjectival formation. Consider the following morphological and syntactic restrictions imposed on English relational adjectives (Nagano & Shimada 2016: 222):

(9) a. In modifying a noun, the derivative requires strict adjacency to the modified noun in a unique position:
***wooden** big table* vs. *big **wooden** table*

b. The derivative lacks gradability and comparativeness:
a very **industrial output*, **more **industrial***

c. The derivative lacks predication possibility:
This output is **industrial. *This decision is **senatorial**.*

d. The derivative does not potentiate further nominal affixation:
??*presidentialness,* ??*racialness*

e. Prefixal negation should be done by *non-*; *in-* and *un-* are difficult.

As is well-known, English and many other European languages have a relational vs. qualitative distinction in denominal adjectival formation (Beard 1995; Fradin 2007, 2008; Bisetto 2010; Rainer 2013; Fábregas 2014, among others). RAs (Relational Adjectives) and QAs (Qualitative Adjectives) are distinct adjectival classes (or subclasses within a major part of speech). QAs are prototypical scalar adjectives that can constitute a predicate. They allow degree morphology and nominalization. In contrast, RAs are attributive-only denominal adjectives with non-scalar, very general semantics, which are often described as 'characterized by', 'pertaining to', and 'relating to'.

Bauer et al.'s (2013: 288–321) corpus-based research suggests that English denominal adjectivalizing suffixes are divided into those that are basically QA-producing, such as *-ish* (e.g. *childish, doggish*) and *-ful* (e.g. *faithful, lawful*), and those that are basically RA-producing, such as *-al* (e.g. *industrial, behavioral, verbal*), *-ary* (e.g. *alimentary, budgetary*), and *-ical* (e.g. *alphabetical, theatrical*). Our target is the RA-deriving suffix *-ic*, which produces relational adjectives such as:

(10) *alcoholic, basaltic, cyclonic, diadic, ectomorphic, fumarolic, genomic, halalic, imbecilic, jihadic, kleptocratic, lethargic, melancholic, nomadic, ozonic, palindromic, quietistic, rhapsodic, satiric, thoracic, urologic, vampiric, warrioristic, xerographic, yogic, zoophilic*

(Bauer et al. 2013: 291)

More established derivatives such as *dramatic* and *romantic* are used not only relationally, as in (11), but also qualitatively, as in (12).

(11) a. *Bodo asked the waitress if she would take the **romantic** lead in film he claimed to be making and…*
b. *The hair and features are certainly in the **romantic** tradition, but the eyes are otherworldly.*

((a) from *BNC Online*, (b) from *Wordbanks Online*)

(12) a. *This evening there's a formal and very **romantic** dinner in the garden of Sandringham, under an avenue of lime trees, the long table lit by candles, with night-lights and lanterns in the branches and on the surrounding lawn.*
b. *He doesn't look like that, but he's very, very **romantic** inside.*

((a) and (b) from *Wordbanks Online*)

Yet, the QA use in (12) should be seen as an extension from the RA use in (11) because most of the RA suffixes occur in the same type of QA (see Nagano 2018).

The suffix *-ic* has been brought into Japanese in the form *-chikku*, through English loanwords such as *romanchikku* (< *romantic*) and *doramachikku* (< *dramatic*). According to Muranaka's (2012) corpus study using *the BCCWJ-NT (The Balanced Corpus of Contemporary Written Japanese)*,[4] *-chikku* is productive, attaching to native, SJ, and foreign bases and turning them into new adjectival nouns. Witness:

(13) a. Derivatives from native words

otome-chikku	'girlish'
< *otome*	'a young girl, maiden'
tenpura-chikku	'tasting like tempura, looking like tempura'
< *tenpura*	'tempura'
muneo-chikku	'reminding one of Muneo Suzuki'
< *Muneo*	the first name of a famous Japanese politician
yarase-chikku	'giving the impression of having been staged'
< *yarase*	'staging'

b. Derivatives from Sino-Japanese words

eigo-chikku	'sounding like English'
< *eigo*	'English'
manga-chikku	'manga-like'
< *manga*	'manga'
kōkyū-chikku	'apparently high-class, posh-looking'
< *kōkyū*	'high-class, posh'
mendō-chikku	'apparently troublesome'
< *mendō*	'troublesome'

c. Derivative from foreign words

SF-chikku	'SF-like'
< *SF (esu-efu)*	'SF, science fiction'
mirufīyu-chikku	'looking like a mille-feuille'
< *mirufīyu*	'a mille-feuille'
ajian-chikku	'looking like Southeast Asian-style'
< *ajian*	'Southeast Asian-style'

Significantly, all these *-chikku* words are SIMILATIVE QAs in the classification of Bauer et al. (2013: Chapter 14) and Fábregas (2014); that is, their meanings can be analyzed as 'be similar to N' (N = base noun). The QA status of the derivatives in (13a-c) is shown not only by their semantic translations but also by the fact that *-chikku* can be appended to another adjectival noun, as in *kōkyū-chikku* in (13b) and *ajian-chikku* in (13c).[5] Additionally, they

[4] This is a large-scale electronic corpus of contemporary written Japanese of various genres, offered by the National Institute for Japanese Language and Linguistics. For details, see: http://pj.ninjal.ac.jp/corpus_center /bccwj/en/

[5] Consider, for instance, the QA suffix *-ish* in English. It produces similative QAs such as *doggish, boyish, feverish*, etc., which share the approximation sense with deadjectival adjectives such as *biggish* 'almost big' and *yellowish* 'almost yellow'.

can be modified by the indefinite degree modifier *totemo* 'very', as in *totemo otome-chikku-na heya* (lit. very girl-affix-PRS room) 'a very girly room'.

A contact-linguistic question we have to address here is this: why is *-chikku* exclusively QA when its source suffix in English derives RAs? In our view, this fact results from a grammatical difference between the languages in contact. Despite their richness in English, RAs cannot be produced from an English loan affix because Japanese grammar does not allow this type of derivation. Consider the following adjectivalizing affixes used in contemporary Japanese:

(14) N/A-to-A affixes in contemporary Japanese

a. Native:
*kodomo-**ppoi*** 'childish', *kodomo-**rashii*** 'childlike, appropriate for a child', *dokudoku-**shii*** 'poisonous-looking', *shirōto-**kusai*** 'amateurish', *byōki-**gachi*** 'sickly'

b. Sino-Japanese:
*risei-**teki*** 'rational', ***mu**-jihi* 'merciless', ***fu**-shizen* 'unnatural',
***bu**-kakkō* 'unshapely'

c. English loan:
-chikku = (13)

In Nagano & Shimada (2016), we closely examined each of these affixes and confirmed their exclusively QA status.

Additionally, in Nagano (2016), one of us confirmed Hagège's (2004: 260) typological generalization concerning Japanese:

> *For example, languages like Chinese, Japanese, various Melanesian languages, etc., have no relational adjectives. In these languages we find relative clauses instead of the relational adjectives found in other languages. This means that in Chinese, etc., "adjectives" always function as predicates.*

Strictly speaking, Japanese uses attributive genitives instead of relational adjectives. Thus, in the following data, the English relational adjectives correspond to the two attributive genitive modifiers in (a) and (b) (see Nagano 2016: 52–55 for more exhaustive illustration):

(15) wheaten bread <Material>
a. *komugi* ***no*** *pan*
wheat GEN bread
b. *komugi-**sei*** ***no*** *pan*
wheat-made GEN bread

(16) Chinese vase <Origin>
a. *Chūgoku* ***no*** *kabin*
China GEN vase

b. *Chūgoku-**sei no*** *kabin*
China-made GEN vase

(17) Slavic language <Genealogy>
a. *surabu **no*** *gengo*
Slav GEN language
b. *surabu-**kei no*** *gengo*
Slav-line GEN language

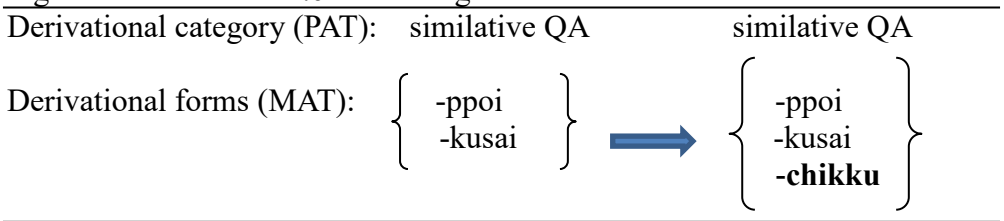
(18) Wordsworthian form <Model, Style>
a. *wāzuwasu **no*** *keisiki*
Wordsworth GEN form
b. *wāzuwasu-**{fū / ryū}*** ***no*** *keisiki*
Wordsworth-style GEN form

(19) triangular room <Shape>
a. *sankaku-**no*** *heya*
triangle-GEN room
b. *sankaku-**kei no*** *heya*
triangle-form GEN room

The modifiers in (a) are formally identical to genitive forms of the base noun, while those in (b) additionally involve a classifier or its kin between the base noun and the genitive particle. The modifiers in (a) and (b) are in the semantic relation of hyponymy. For example, (15a) and (15b) differ in that (15a) has the same semantic sparseness as *wheaten bread*, while (15b) foregrounds its most salient reading, 'bread made of wheat'. (15b) is always interpreted in this way because the bound morpheme *sei* is a specialized marker of the made-of relation. Following Nagano (2016), we will call the longer form EXPANDED MODIFIER. (We return to this type of modifier in the next section.)

In brief, the novel suffix *-chikku* is a combination of MAT from the donor language and PAT from the recipient language. If both the MAT and PAT of the donor were replicated, it would have resulted in the creation of a new derivational category in Japanese: RA. However, the actual case is an addition of a new member to the pre-existing set of native members that are used to formally realize the derivational category of similative QA. Figure 1 is a rough illustration of the contact-induced change in this case.

Figure 1: The effect of *ic*-borrowing



Based on the discussion in Nagano & Shimada (2016), we assume that there are certain semantic subdivisions within the QA suffixes cited in (14a, b), with *-ppoi* and *-kusai* from the native stratum being used for similative QAs. As illustrated in Figure 1, *-chikku* is added into

the paradigmatic relationship between *-ppoi* and *-kusai* and expands a two-member set into a three-member set. A question of particular interest is the distribution of the three suffixes over potential nominal bases. If the choice of *-chikku* over *-ppoi* and *-kusai* turns out to be based on some feature or a combination of some features, it might be seen as a sign of the emergence of a new distributional class within the category of similative QA, caused by *ic*-borrowing. We leave this question for future research.

3. Morphostructural borrowing: the preposition *in*

English and Japanese show yet another stark contrast in the availability of prepositions. Japanese, a head-final language, does not use prepositions. Is it possible for such a language to borrow English prepositions? As will be shown presently, the first way to do so is to borrow them as purely morphological alternates of existing grammatical items. This is similar to the way *-chikku* was borrowed as a morphological alternate to the pre-existing QA affixes. Interestingly, however, we detect incipient effects of the harder option and borrowing of the left-headed structure.

3.1 *MAT borrowing without PAT*

We begin with cases where only MAT of *in* is borrowed. Japanese [Noun + イン] compounds with the sense 'containing N' or 'with N added' are closely studied by Namiki (2003, 2005).[6] イン is the katakana writing of the borrowed version of *in*. We use this original orthography to avoid unnecessary confusion between the English *in* and its borrowed version; イン is romanized as *in*, so the romanization causes confusion for readers. Namiki provides many examples of a [Noun + イン] compound occurring as a modifier to another noun, forming a larger tripartite nominal modification: [[$Noun_1$ + イン] + $Noun_2$]. Witness:

(20) [[$Noun_1$ + イン] + $Noun_2$]

a. ***rinsu-イン*** *shanpū* (original: リンスインシャンプー)
rinse in shampoo
'shampoo with rinse in it, conditioning shampoo'

b. ***furūtsu-イン*** *sheiku* (original: フルーツインシェイク)
fruit in shake
'fruit shake'

c. ***hābu-イン*** *dentā* (original: ハーブインデンター)
herb in Dentor (trade name for toothpaste)
'Dentor with herbs in it'

d. ***takoyaki-イン*** *gyōza* (original: たこ焼きイン餃子)

[6] The construction studied by Namiki is semantically and categorially different from verbal nouns ending in イン such as シーズンイン (lit. season-in) 'start of the (sports) season' and ゴールイン (lit. goal-in) 'attainment of a goal' (Morioka 1985: 116, Loveday 1996: 139).

octopus ball in pot sticker
'Pot sticker with an octopus ball in it'

(Namiki 2005: 8–9, glosses and translations ours)

As shown by the original scripts, the pattern accommodates etymologically different words.

What Namiki has revealed based on such instances is that イン is not necessarily a preposition. To be specific, he shows that the linkers in (20) are not prepositions. If they were, they should project the left-headed structure [$Noun_1$ + [イン + $Noun_2$]], in which N_1 is the head of the entire expression. However, the expressions in (20) are strictly right-headed, instantiating a structure in which N_2 is the head of the entire expression and イン takes N_1 as its complement. For example, (20a) is not a type of hair rinse but a type of shampoo, which means that it is interpreted not in the way depicted in (21a), but in the way depicted in (21b).

(21) a. $Noun_1$ イン $Noun_2$
rinse IN shampoo

b. $Noun_1$ イン $Noun_2$
rinse IN shampoo

Namiki argues that the expression *rinsu-イン shanpū* is interpreted this way because イン is being used as a morphological alternant for the native deverbal noun *iri* (入り), which is based on the change-of-location verb *iru* 'go in, get in, enter'.[7]

Recall the Japanese attributive genitives we encountered in Section 2. The expanded modifiers in (15-19b) have a complex form in which Noun is selected by a classifier and the combination is further selected by the genitive marker, as in [[Noun + classifier] + *no*].[8] *Iri* functions as a classifier of this pattern and forms expanded modifiers, taking Quantity, Ingredient, or Container as the complement N. Witness:

(22) *N-iri* compounds expressing 'containing N' or 'contained in N'

a. ***2 rittoru-iri*** *no* *bin* <N: Quantity>
2 liter-containing GEN bottle
'a bottle containing 2 liters; a bottle with a capacity of 2 liters'

b. ***kuri-iri*** *no* *kēki* <N: Ingredient>
chestnut-containing GEN cake
'cake with chestnuts in it'

c. ***kan-iri*** *no* *bīru* <N: Container>
can-contained GEN beer

[7] Technically, *iri* is a *ren'yō* deverbal noun from the old change-of-location verb *iru* 'get in, go in, enter' (according to *Nihon Kokugo Daijiten*), but *iru* in this sense is now superseded by *hairu* 'get in, go in, enter'. Thus, *Daijirin*, another Japanese dictionary, relates the form to *hairu*.

[8] As detailed in Nagano (2016), this form differs from the genitive modifier [N + *no*] in being able to function as a predicate. Thus, the modifiers in (15-19a) are truly similar to RAs in being attributive-only, while those in (15-19b) can be used as predicates.

‘canned beer, beer in a can’

((a) from Namiki 2005: 541; (b) and (c) our own)

Significantly, using the usage in (22b), we can produce nominal modifiers in the pattern [Noun-*iri no*] that are semantically and structurally parallel to the [Noun + イン] modifiers in (20). Compare (20a-d) with the following expressions:

(23) a. ***rinsu-iri*** *no* *shanpū* (リンス入りのシャンプー)
rinse-added GEN shampoo
‘shampoo with rinse in it, conditioning shampoo’

b. ***furūtsu-iri*** *no* *sheiku* (フルーツ入りのシェイク)
fruit-added GEN shake
‘fruit shake’

c. ***hābu-iri*** *no* *dentā* (ハーブ入りのデンター)
herb-added GEN Dentor (tradename for toothpaste)
‘Dentor with herbs in it’

d. ***takoyaki-iri*** *no* *gyōza* (たこ焼き入りの餃子)
octopus ball-added GEN pot sticker
‘Pot sticker with an octopus ball in it’

The expressions in (20) are different from those in (23) in lacking the genitive marker, and the construction [Noun_1 + イン] + Noun_2] as a whole constitutes a compound. This difference is, however, not important because the genitive markers in (23) can be deleted, which makes the entire expression close to compounds, as in: (23a) ***rinsu-iri*** *no shanpū* → ***rinsu-iri*** *shanpū*. What is crucial here is the fact that the preposition *in* is borrowed as a morphological alternant for a pre-existing native nominal classifier. Put differently, Namiki’s イン is an instance of MAT borrowing of a preposition without its PAT.

3.2 *MAT borrowing with different aspects of PAT*

Next, there are instances of イン that inherit the word-order and/or selectional aspects of the PAT of *in*. Let us call this type “new イン”, in contrast to Namiki’s イン. In English, the PAT of *in* has two aspects: it projects a left-headed structure, and it selects a locative expression. Surprisingly, in Japanese, the new イン replicates the word-order aspect only in some cases, while it replicates both aspects in other cases. We start with the first type.

Namiki’s イン produces right-headed compounds because it is not a preposition but a morphological alternant for a native classifier and follows the latter’s word syntax. Interestingly, however, on the Internet, we sometimes come across semantically similar compounds put in the reverse, left-headed order. In the following expressions, bold-faced parts are structural constituents, with イン taking the following Ingredient-denoting noun as its complement:

(24) a. *hanbāgu* ***イン-chīzu*** (ハンバーグインチーズ)
hamburger in cheese
'cheese-stuffed hamburger'
(From a recipe site by a famous Japanese cook, date not specified)[9]

b. *mābōdōfu* ***イン-raisu*** (麻婆豆腐インライス)
mabo tofu in rice
'mabo tofu (a Chinese tofu dish) with rice in it'
(From a blog article written in 2010)[10]

c. *Oishisōna sūpu karī,* ***イン-raisu*** *ga dekiagari!*
Delicious-looking soup curry IN rice NOM be.ready
'Voila, a delicious-looking soup curry with rice in it!'
(From a blog article written in 2009)[11]

d. *Gōichi de wa nokorijiru ni* ***イン-raisu*** *de 'ojiya' o tanoshimu sōdesu*
G at TOP soup DAT in rice OBL porridge ACC enjoy I.heard
'I heard that at Gōichi (a rāmen shop), he likes to put boiled rice into his remaining soup and eat it as porridge.'
(From a blog article written in 2013)[12]

First, let us compare these colloquial expressions with Namiki's examples. The bold-faced parts [イン + Noun] are also compounds that function as nominal modifiers. In (24a-c), the instance modifies the preceding noun, while (24d) can be seen as modification of a phonetically zero nominal. Semantically, [イン + Noun] compounds are synonymous to [Noun + イン] and [Noun + *iri*], all of them expressing 'containing N (Ingredient)'. As indicated below, it is possible to reverse the word-internal order of the modifiers in (24) without affecting the semantic interpretation or well-formedness of the entire expression.

(25) a. *hanbāgu* ***chīzu-イン***
= synonymous to (24a)

b. *mābōdōfu* ***raisu-イン***
= synonymous to (24b)

c. *Oishisōna sūpu karī,* ***raisu-イン*** *ga dekiagari!*
= synonymous to (24c)

d. *Gōichi de wa nokorijiru ni* ***raisu-イン*** *de 'ojiya' o tanoshimu sōdesu*
= synonymous to (24d)

[9] http://recipe.sp.findfriends.jp/?pid=recipe_detail&id=11637 (Accessed in January 2017)
[10] https://blogs.yahoo.co.jp/acmasterjp/61319424.html (Accessed in January 2017)
[11] http://blog.livedoor.jp/robinxxx2008/archives/2009-02.html?p=4 (Accessed in January 2017)
[12] http://f31a0418.blog.fc2.com/category1-4.html (Accessed in January 2017)

The expressions in (24a) and (25a) are new versions of the following more established name formed in the strictly right-headed order adopted in (20): [[*chīzu-イン*] *hanbāgu*] 'cheese-stuffed hamburger' = synonymous to (24a) and (25a).

The observation above is significant because, usually, pairs of reversible compounds are not synonymous (Scalise 1992: 179; Namiki 1994: 270–273):

(26) a. sugar maple ≠ maple sugar
b. house dog ≠ dog house
c. piano player ≠ player piano
d. association football ≠ football association

(Namiki 1994: 271)

According to Namiki (1994), the pairs in (26) are not synonymous because both members are right-headed. If so, our synonymous reversible compounds should differ in their head position, with [Noun + イン] being right-headed and [イン + Noun] being left-headed. Since the complement Noun is Ingredient in both types, the former イン and the latter イン share the same selectional property. Based on these considerations, it is safe to conclude that Namiki's イン and the new イン in (24) differ only in the word-order property. The latter is similar to the Japanese *iri* in its selectional property but similar to the English *in* in its word-order property.

Next, let us proceed to a different subtype of the new イン. Compare the expressions in (24) with the following examples:

(27) a. *samurai* ***イン-Atene*** (サムライ・**イン**・アテネ)
samurai in Athens
'samurais in Athens'[13]

b. *Shinsengumifesuta* ***イン-Hino*** (新選組フェスタ**イン**日野)
Shinsengumi festival in Hino (a city in Tokyo)
'Shinsengumi festival in Hino'

c. 精密工学会秋季大会学術講演会 **in** 仙台
Seimitsukōgakkai Shūkitaikai Gakujutsukōenkai ***イン-Sendai***
Precision-engineering-society autumn-meeting lecture in Sendai
'Precision Engineering Society's autumn meeting lecture in Sendai'

((a, b) from Namiki 2005: 17, Footnote 13; glosses and translations ours;
(c) from our personal corpus)

The example in (27c) uses alphabets for イン. In (27a-c), the glosses and translations show that the [イン+ Noun] combination is structurally and semantically similar to an English locative *in*-phrase. The complement Noun is not an Ingredient but a Location. This subtype of the new イン is not a morphological alternant of *iri*. The above expressions

[13] This is the title of a song composed by a Japanese songwriter for Japan's synchronized swim team, played at the Athens Olympics in 2004.

cannot be paraphrased with it: (27a) ≠ *samurai Atene-iri*, (27b) ≠ *Shinsengumifesuta Hino-iri*, (27c) ≠ *Seimitsukōgakkai Shūkitaikai Gakujutsukōenkai Sendai-iri.* Rather, the instances in (27a-c) should be seen as a replication of the preposition *in*, retaining its word-order and selectional properties.

Table 1 summarizes our observations in Section 3:

Table 1: Three subtypes of the copy of *in* in Japanese

	Category of イン	What is borrowed	Example
1 Noun + イン	classifier *iri*	MAT only	(20)
2 イン + Noun	classifier *iri*	MAT & word-order PAT	(24)
3 イン + Noun	Locative preposition	MAT & word-order PAT & selectional PAT	(27)

In Type 1, the preposition is borrowed as a morphological alternant for a pre-existing native classifier. In Type 3, it is borrowed as a preposition, including its left-headed syntax and selectional property (cf. Moravcsik 1978).[14] What substantiates the separation of MAT and PAT as well as different aspects of PAT in grammatical borrowing is Type 2, where the category of イン is a classifier but the word-internal syntax is prepositional.

4. Affix-borrowing in the sense of creation of a new affix: the pronoun *my*

This final section addresses the borrowing of the first person singular possessive pronoun *my*. As far as we know, *my*-borrowing has not been seriously studied in the literature, but it is a fascinating phenomenon that resonates with the inherent ambiguity of the term *affix-borrowing*: a pronoun in the donor language is replicated as a derivational prefix in the recipient language.

4.1 *Syntactic and semantic properties of* mai-X

In contemporary Japanese, the borrowed form *mai*, which is written as マイ, is being increasingly used as a prefix, producing novel expressions not only from foreign loans but also from native and Sino-Japanese bases.

Let us start with established examples, where *mai-* is attached to English loan bases:

(28) a. *mai-kā*
my car
'privately owned car'

b. *mai-hōmu*
my home
'privately owned house'

[14] Moravcsik's (1978: 112) sixth constraint on borrowing says: *A lexical item that is of the "grammatical" type (which type includes at least conjunctions and adpositions) cannot be included in the set of properties borrowed from a language unless the rule that determines its linear order with respect to its head is also so included.*

(Shibatani 1990: 151)

Comparing these with their English counterparts *my car* and *my home*, we easily notice that while *my* refers to the first person, *mai-* does not. For example, *my car* refers to a car owned by the speaker of this expression, but *mai-kā* can refer to a car owned by the addressee, as in (29a), or one owned by a third person, as in (29b):

(29) a. *Anata wa koko ni* ***mai-kā*** *de kimashita ka?*
You TOP here to my car by come.polite.PST Q
'Did you come here in your own car?'

b. *Taro wa koko ni* ***mai-kā*** *de kimashita ka?*
Taro TOP here to my car by come.polite.PST Q
'Did Taro come here in his own car?'

Japanese dictionaries translate *mai-kā* as *jikayō-sha* 'self-use car' and *mai-hōmu* as *jibun no mochi'ie* 'self's private-house' or *jibun no katei* 'self's home', suggesting that *mai-* corresponds not to *watashi no*, the first person singular possessive, but to *jibun no*, the genitive of the reflexive pronoun *jibun* 'self'. In fact, the above English-Japanese difference can be easily explained by thinking that *mai-kā* is close to *jibun no kuruma* 'self's car', for it is well-known that *jibun* is bound by the subject of the sentence (Shibatani 1990: 283; Tsujimura 2014: 255–263; Hasegawa 2015: 151). In (29a), *mai-* refers to the addressee because the subject of the sentence is *anata* 'you'. On the other hand, in (29b), the preceding subject is Taro, so *mai-kā* refers to Taro's car. Compare (29) with (30) and (31), respectively:

(30) a. *Anata wa koko ni* ***jibun no kuruma*** *de kimashita ka?*
You TOP here to self GEN car by come.polite.PST Q
'Did you come here in your own car?'

b. *Taro wa koko ni* ***jibun no kuruma*** *de kimashita ka?*
Taro TOP here to self GEN car by come.polite.PST Q
'Did Taro come here in his own car?'

(31) a. *Anata wa koko ni* ***watashi no kuruma*** *de kimashita ka?*
You TOP here to I GEN car by come.polite.PST Q
'Did you come here in my car?'

b. *Taro wa koko ni* ***watashi no kuruma*** *de kimashita ka?*
Taro TOP here to I GEN car by come.polite.PST Q
'Did Taro come here in my car?'

These sentences show that *mai-X* can be replaced with *jibun no X*, but the replacement with *watashi no X* dramatically changes the interpretation of who owns X.

To confirm the syntactic and semantic parallelism between *mai-X* and *jibun no X*, consider the following sentence:

(32) *Naomi wa Ken ni* ***jibun no heya*** *de sekkyōshita.*

Naomi TOP Ken DAT self GEN room in lecture. PST
'Naomi lectured Ken in her own room.'

In this sentence, *jibun no heya* 'self's room' is preceded by two human-denoting NPs, Naomi (a female subject) and Ken (a male object). However, as the translation indicates, the antecedent is limited to the subject. The above sentence cannot be read in the sense 'Naomi lectured Ken in his own room'. The concept of subject orientation captures the fact that the anaphoric interpretation of *jibun* is oriented towards the subject in this manner. Our point is that the same property can be found in the interpretation of *mai-X*. Witness:

(33) *Naomi wa Ken ni* ***mai-rūmu*** *de sekkyōshita*.
Naomi TOP Ken DAT self room in lecture. PST
'Naomi lectured Ken in her own room.'

This sentence, too, exhibits subject orientation.

Moreover, *mai-X* and *jibun no X* share the possibility of long-distance binding. First, consider the following biclausal sentence in which (32) is embedded:

(34) *Jon wa* [*Naomi ga Ken ni* ***jibun no heya*** *de sekkyōshita*] *to omotta*.
John TOP Naomi NOM Ken DAT self GEN room in lecture. PST COMP think.PST
i. 'John thought that Naomi lectured Ken in her [Naomi's] room.'
ii. 'John thought that Naomi lectured Ken in his [John's] room.'

As indicated in the translations, this sentence is ambiguous. In reading (34i), *jibun no heya* refers to Naomi's room, while in reading (34ii), it refers to John's room. The latter reading is called long-distance binding because the embedded *jibun* is bound by the main-clause subject. In reading (34i), on the other hand, it is bound by the clause-mate subject. Significantly, the same ambiguity is observed when sentence (33) is embedded in the same structure:

(35) *Jon wa* [*Naomi ga Ken ni* ***mai-rūmu*** *de sekkyōshita*] *to omotta.*
John TOP Naomi NOM Ken DAT self room in lecture. PST COMP think.PST
i. 'John thought that Naomi lectured Ken in her [Naomi's] room.'
ii. 'John thought that Naomi lectured Ken in his [John's] room.'

This observation confirms that *mai-X* also allows long-distance binding.

The parallelism between *mai-X* and *jibun-no X* is empirically supported by recent *mai*-coinages. Our *mai-X* data collected from various sources roughly divides into three semantic groups, Group 1 in (36), Group 2 in (37), and Group 3 in (38), with the former two groups (the major ones) corresponding to *jibun no X.* Cross-cutting with the semantic division is the division of base etymology; instances in (a) are based on katakana words (the default choice), while those in (b) are based on hiragana or kanji words. Witness our tentative classification:

(36) Group 1 *mai-X = jibun-yō no X* 'self-use's X'

a. *mai-bōru* 'self ball' *mai-bakku* 'self bag'
mai-botoru 'self bottle' *mai-kappu* 'self cup'

mai-desuku ‘self desk’ *mai-pēji* ‘self page’
mai-shīto ‘self seat’ *mai-songu* ‘self song’

b. *mai-kasa* ‘self umbrella’ *mai-hashi* ‘self chopstick’
mai-isu ‘self chair’ *mai-kaya* ‘self mosquito net’
mai-karuta ‘self karuta’ *mai-kappa/gappa* ‘self raincoat’

(37) Group 2 *mai-X = jibun-ryū no X* ‘self-manner’s X’

a. *mai-wārudo* ‘self world’ *mai-pēsu* ‘self pace’
mai-būmu ‘self boom’ *mai-shīzun* ‘self season’
mai-puran ‘self plan’ *mai-rūru* ‘self rule’
mai-kyanpēn ‘self campaign’ *mai-kyara* ‘self character’

b. *mai-osechi* ‘self osechi (traditional Japanese dish for the New Year)’
mai-ryōri ‘self cooking’ *mai-kenkō* ‘self health’
mai-saiten ‘self grading’ *mai-jōbutsu* ‘self Rest-in-Peace’
mai-sōgi ‘self funeral’ *mai-uchiage* ‘self party’

(38) Group 3 miscellaneous

a. *mai-nanbā* ‘individual number’
mai-kōdo ‘individual code’
mai-saizu ‘individual size’

b. *mai-wari* ‘individual discount’
mai-nabe ‘individual firepot meal’
mai-ongaku ‘individual music’

Both Group 1 and Group 2 are consistent with our analysis because they can be naturally translated as *jibun no X*. Their division arises only at the level of expanded modifiers (see §2) in the sense that the two groups involve different classifiers. In Group 1, *mai-* corresponds to *jibun-**yō** no* ‘of self-use’, while in Group 2, it corresponds to *jibun-**ryū** no* ‘of self-manner’. In contrast, Group 3 accommodates miscellaneous cases where the translation with *jibun-yō no X* or *jibun-ryū no X* is not natural. In this group, *mai-* is closer to *kojin (no)* ‘individual’. For example, (38a) *mai-nanbā* refers to Japanese citizens’ official identification numbers issued by the Japanese Ministry of Internal Affairs and Communications. The ministry website translates *mai-nanbā* as *individual number* in English. Instances in (38b) involve a kind of individual/group opposition, being produced against the common notion of X for/by a larger collective group. For instance, *nabe* ‘firepot meal’ is usually enjoyed by a group of people, but *mai-nabe* refers to a single person enjoying it on his or her own. Group 3 requires a separate treatment.[15]

In sum, this section has shown that *mai* is a combination of English MAT and Japanese PAT (the category of *jibun* ‘self’).

[15] One possibility is comparing *mai-* in Group 3 with the Sino-Japanese bound item *shi* ‘private’, found in such expressions as *shi-hi* ‘private money’, *shi-fuku* ‘private clothes’, *shi-jin* ‘private person’, *shi-yō* ‘private business’, and *shi-seikatsu* ‘private life’.

4.2 *Emergence of a new affix*

There are several questions to be answered on *my*-borrowing. The first one is: Why is *my* mapped to *jibun* 'self' rather than *watashi* 'I' in Japanese? The second one is: is *mai-X* phrasal like *my X*?

In our view, the key to the first question lies in Hirose's (1995, 2000, 2002, 2013, 2014) hypothesis that *jibun* 'self' rather than *watashi* 'I' is the default speaker in Japanese. Hirose divides the concept of speaker into PRIVATE SELF and PUBLIC SELF. The former refers to the speaker as the subject of thinking or consciousness, while the latter refers to the speaker as the subject of communicating. Moreover, Hirose observes that Japanese and English differ in how the two selves are morphological encoded. Witness the following table:

Table 2: Two aspects of the speaker and their morphological encoders

	Private-Self pronouns	Public-Self pronouns
Japanese	***jibun***	*watashi, boku, atashi, watakushi…*
English	*I* (*you, he, she*)	***I***

(Based on Hirose 2013: 9)

Japanese morphologically distinguishes the two aspects of the speaker, using *jibun* 'self' for the private self and the first person pronoun *watashi* (or *boku* or *atashi* or *watakushi*) for the public self. English, on the other hand, does not have a special word for the private self. The pronoun *I* encodes the public self, but it is secondarily used for the private self too.

What is crucial to better understand *my*-borrowing is Hirose's claim that "English is a public-self centered language, whereas Japanese is a private-self centered language" (Hirose 2013: 5). Based on careful and elaborate comparisons of various Japanese and English constructions, including quotation and soliloquy, Hirose shows that the unmarked deictic center is located at the public self in English but at the private self in Japanese. For instance, *jibun* is much more natural than *watashi* as the subject of the following soliloquizing utterance:

(39) ***Jibun*** *wa zettaini tadashi-i.*
Self TOP absolutely right-PRS
'I am absolutely right.'
Lit. 'Self is absolutely right.'

(Hirose 2013: 9 with slight modifications)

Now, let us look at the highlighted cells in Table 2. These cells correspond to the unmarked deictic centers of the two languages. We claim that the MAT of *my* is mapped to the PAT of *jibun* because the copying of information most likely occurs at the unmarked level.[16] Put simply, the combination of MAT and PAT in *my*-borrowing reflects the status of *jibun* as the true counterpart of *I.*

Let us move on to the second question. The copy of *my* differs from its model also in its morphological property. From the viewpoint of lexical integrity (Lieber & Scalise 2007),

[16] This working hypothesis, of course, awaits extensive empirical examination in various cases of grammatical borrowing.

my X can be internally divided by a phrasal modifier or modifiers, as in *my car* > *my very old pink car*, but *mai-X* cannot. Witness:

(40) a. *mai-kā* > **mai pinku no kā*
self car self pink GEN car
'self car' ('self's pink car')

b. *mai-kasa* > **mai furui kasa*
self umbrella self old.PRS umbrella
'self umbrella' ('self's old umbrella')

The results show that *mai-X* cannot be divided by a phrasal modifier. Compare the ungrammatical expression in (40b) with *mai-furugasa* (self old.umbrella) 'self old-umbrella'. The latter expression is acceptable given an appropriate context because 'old' and 'umbrella' are compounded, as indicated by the sequential voicing on the noun (i.e., *kasa* > *gasa*). It is clear that *mai-X* is a morphological combination.

Next, *mai-* always occurs in front of X:

(41) a. **kasa mai*
umbrella self
('self umbrella')
b. **nanbā mai*
number self
('individual number')

This fact shows that *mai-* has a positional restriction imposed on an affix (Scalise 1984: 75). To be specific, *mai-* should be seen as a prefix.

The two tests above show that *mai-* is a derivational prefix (there are no grounds to see it as inflectional). This morphological observation, however, flies in the face of the syntactic-semantic observation in §4.1. As is known as the Anaphoric Island property of lexical integrity, generally, word-internal elements cannot be coreferential with outside elements. For example, we cannot refer to the first element of compounds such as *lion hunter* with *it*. However, *mai-* can be coreferential with the subject of the sentence, as we saw in §4.1. How can we make sense of these contradictory properties? We tentatively suggest that *mai-X* is an instance of Kageyama's (2001, 2009) WORD PLUS (W+) category. Kageyama observes that certain Sino-Japanese prefixes and certain types of compounds are words (X^0) in the sense of morphological integrity — no internal modification and deletion — but phrasal (X') in the sense of syntactic-semantic analyzability, in particular, the possibility of sentence-level anaphora. For instance, Kageyama (2009) notes that Japanese dvandva compounds such as *fūfu* (husband-wife) 'husband and wife' have such properties:

(42) **Fūfu** wa **tagai** o hagemashita.
Husband-wife TOP each other ACC cheer.PST
'The husband and wife cheered each other up.'
(Kageyama 2009: 515; Romanization modified)

The dvandva cannot be morphologically manipulated: for instance, **fufū* (wife-husband), **fū-**ken**-fu* (husband-cum-wife). However, it allows sentence-level anaphora. The mixture of these properties is exactly what we have found for *mai-X*.

To summarize the discussion in this section, *mai-* is replicated as the W+ counterpart of *jibun*. The emergence of this new prefix can be understood as another sign of the primacy of *jibun* over *watashi* in language use by Japanese speakers.[17]

6. Conclusion

This paper has focused on three English grammatical items and examined how each of them is used in contemporary Japanese. As in many other languages, lexical borrowing is much more active than grammatical borrowing in this language, but in the domain of word-formation, incorporation of a new MAT and/or PAT is not impossible. The overall picture is thus consistent with the observation in contact linguistics that derivational affixes are more borrowable than inflectional affixes (Matras 2007: 61–62).

Throughout, we separated MAT and PAT in word-formation. The approach is promising because the process of grammatical borrowing involves an intricate rearrangement of concrete forms and abstract properties from the donor and recipient languages. The principle(s) of rearrangement is/are unknown, but it is reasonable to hypothesize that typological differences between the two languages involved play a pivotal role. In *ic*-borrowing, the PAT of the copy is determined by the nature of the Japanese N-to-A derivation. In *my*-borrowing, the PAT of the copy is determined by the aspect of this language as a private-self centered language. This case is also important in that the term *affix-borrowing* should be used carefully; generally, it means that an affix of the donor language is borrowed, as in the case of *ic*-borrowing, but there are cases where a non-affixal element is borrowed as an affix. Finally, *in*-borrowing is multi-faceted. In Type 1, the MAT of the preposition is combined with the PAT of a Japanese deverbal classifier, whereas in Type 3, both the MAT and PAT of the preposition are replicated. Type 2 is most complicated because its PAT combines the selectional property of the Japanese deverbal classifier and the word-order property of the English preposition.

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[17] One may suggest viewing *mai-* as a morphological alternant for the pre-existing bound form *ji-*. One difficulty with this idea is that unlike *mai-X*, *ji-X* does not always involve a possessor-possessee relationship between *ji* 'self' and X. Additionally, *ji-X* differs from *mai-X* in disallowing the long-distance anaphora such as (34) and (35). See Shimada & Nagano (2011) for details.

References

Backhouse, Anthony E. 2004. Inflected and uninflected adjectives in Japanese. In Dixon, R. M. W. & Aikhenvald, Alexandra Y. (eds.), *Adjective classes: A cross-linguistic typology*, 50─73. Oxford: Oxford University Press.

Bauer, Laurie & Lieber, Rochelle & Plag, Ingo. 2013. *The Oxford reference guide to English morphology*. Oxford: Oxford University Press.

Beard, Robert. 1995. *Lexeme-morpheme base morphology: A general theory of inflection and word formation*. Albany: State University of New York Press.

Bisetto, Antonietta. 2010. Relational adjectives crosslinguistically. *Lingue e Linguaggio* 9. 65─85.

Fábregas, Antonio. 2014. Adjectival and adverbial derivation. In Lieber, Rochelle & Štekauer, Pavol (eds.), *The Oxford handbook of derivational morphology*, 276─295. Oxford: Oxford University Press.

Fradin, Bernard. 2007. Three puzzles about denominal adjectives in *-eux*. *Acta Linguiatica Hungarica* 54. 3─32.

Fradin, Bernard. 2008. On the semantics of denominal adjectives. In Booij, Geert & Ralli, Angela & Scalise, Sergio (eds.), *On-line proceedings of the sixth Mediterranean Morphology Meeting*, 1─15.

Hagège, Claude. 2004. On categories, rules and interfaces in linguistics. *The Linguistic Review* 21. 257─276.

Hasegawa, Yoko. 2015. *Japanese: A linguistic introduction*. Cambridge: Cambridge University Press.

Hashimoto, Waka. 2010. *Gendainihongo ni okeru gairaigo no ryōtekisuii ni kansuru kenkyū* (A study of quantitative changes in foreign words in Present-day Japanese). Tokyo: Hituzi Syobo.

Hirose, Yukio. 1995. Direct and indirect speech as quotations of public and private expression. *Lingua* 95. 223─238.

Hirose, Yukio. 2000. Public and private self as two aspects of the speaker: A contrastive study of Japanese and English. *Journal of Pragmatics* 32. 1623─1656.

Hirose, Yukio. 2002. Viewpoint and the nature of the Japanese reflexive *zibun*. *Cognitive Linguistics* 13. 357─401.

Hirose, Yukio. 2013. Deconstruction of the speaker and the three-tier model of language use. *Tsukuba English Studies* 32. 1─28.

Hirose, Yukio. 2014. The conceptual basis for reflexive constructions in Japanese. *Journal of Pragmatics* 68. 99─116.

Irwin, Mark. 2011. *Loanwords in Japanese*. Amsterdam: John Benjamins.

Ishiwata, Toshio. 2001. *Gairaigo no sōgōteki kenkyū* (A comprehensive study of foreign words). Tokyo: Tokyodoshuppan.

Jinno-uchi, Masataka & Aizawa, Masao & Tanaka, Makiro (eds.). 2012. *Gairaigo kenkyū no shintenkai* (Advances in *gairaigo* research). Tokyo: Ohfu.

Johanson, Lars & Robbeets, Martine. 2012. Bound morphology in common: Copy or cognate? In Johanson, Lars & Robbeets, Martine (eds.), *Copies versus cognates in bound morphology*, 3–22. Leiden: Brill.

Kageyama, Taro. 1982. Word formation in Japanese. *Lingua* 57. 215–258.

Kageyama, Taro. 2001. Word Plus. In Weijer, Jeroen & Nishihara, Tetsuo (eds.), *Issues in Japanese phonology and morphology*, 245–276. Berlin: Mouton de Gruyter.

Kageyama, Taro. 2009. Isolate: Japanese. In Lieber, Rochelle & Štekauer, Pavol (eds.), *The Oxford handbook of compounding*, 512–526. Oxford: Oxford University Press.

Kinsui, Satoshi. 2010. Nihongo to eigo tono sesshoku: Heisei to shōwa o chūshin ni (Japanese-English contact in the Showa and Heisei eras). *Nihongogaku* 29(14). 64–72.

Kobayashi, Chigusa. 2009. *Gendai gairaigo no sekai* (The world of contemporary *gairaigo*). Tokyo: Asakura.

Kubozono, Haruo. 1995. *Gokeisei to oninkōzō* (Word formation and phonological structure). Tokyo: Kurosio.

Lieber, Rochelle & Scalise, Sergio. 2007. The Lexical Integrity Hypothesis in a new theoretical universe. In Booij, Geert & Ducceschi, Luca & Fradin, Bernard & Guevara, Emiliano & Ralli, Angela & Scalise, Sergio (eds.), *On-line proceedings of the fifth Mediterranean Morphology Meeting (MMM5)*, 1–24.

Loveday, Leo J. 1996. *Language contact in Japan: A socio-linguistic history*. Oxford: Oxford University Press.

Matras, Yaron. 2007. The borrowability of structural categories. In Matras, Yaron & Sakel, Jeanette (eds.), *Grammatical borrowing in cross-linguistic perspective*, 31–73. Berlin: Mouton de Gruyter.

Matras, Yaron & Sakel, Jeanette (eds.). 2007a. *Grammatical borrowing in cross-linguistic perspective*. Berlin: Mouton de Gruyter.

Matras, Yaron & Sakel, Jeanette. 2007b. Investigating the mechanisms of pattern replication in language convergence. *Studies in Language* 31. 829–865.

Miller, Laura. 1998. Wasei eigo: English “loanwords” coined in Japan. In Hill, Jane H. & Mistry P. J. & Campbell, Lyle (eds.), *The life of language: Papers in linguistics in honor of William Bright*, 123─139. Berlin: Mouton de Gruyter.

Moravcsik, Edith A. 1978. Universals of language contact. In Greenberg, Joseph H. (ed.), *Universals of human language: Volume 1, method & theory*, 94─122. Stanford: Stanford University Press.

Morioka, Kenji. 1985 [2008]. Gairaigo no haseigoi (Derived words in foreign words). Reprinted in Miyaji, Yutaka & Kai, Mutsuro (eds.), *Nihongogaku: Goi 4* (Japanese linguistics: Vocabulary), 112─122. Tokyo: Meijishoin.

Morioka, Kenji. 1994. *Nihongobunpōtaikeiron* (Organization of Japanese grammar). Tokyo: Meijishoin.

Muranaka, Toshiko. 2012. Gairaigo yuraino settōji chikku to ruigigo no hikaku (A comparison between the foreign loan suffix *-chikku* and its synonyms). (http://www.ninjal.ac.jp/event /specialists/project-meeting/files/JCLWorkshop_no1_papers/JCLWorkshop2012_09.pdf) (Accessed in July 2016)

Nagano, Akiko. 2016. Are relational adjectives possible cross-linguistically?: The case of Japanese. *Word Structure* 9(1). 42─71.

Nagano, Akiko. 2018. A conversion analysis of so-called coercion from relational to qualitative adjectives in English. *Word Structure* 11(2). 185─210.

Nagano, Akiko & Shimada, Masaharu. 2016. How poor Japanese is in adjectivizing derivational affixes and why. In Körtvélyessy, Lívia & Štekauer, Pavol & Valera, Salvador (eds.), *Word-formation across languages*, 219─240. Oxford: Oxford Scholars Publishing.

Namiki, Takayasu. 1982. The notion ‘head of a word’ and core and periphery word formation: Interactions between affixation and subcategorization. *Studies in English Linguistics* 10. 21─41.

Namiki, Takayasu. 1994. Heads and subheads of compounds. In Shuji Chiba et al. (eds.), *Synchronic and diachronic approaches to language: A festschrift for Toshio Nakao on the occasion of his sixtieth birthday*, 269─306. Tokyo: Kaitakusha.

Namiki, Takayasu. 2001. Further evidence in support of the Righthand Head Rule in Japanese. In Weijer, Jeroen & Nishihara, Tetsuo (eds.), *Issues in Japanese phonology and morphology*, 277─298. Berlin: Mouton de Gruyter.

Namiki, Takayasu. 2003. On the expression *rinse in shampoo*: A new type of Japanese compound coined from English words. In Shuji Chiba et al. (eds.), *Empirical and theoretical investigations into language: A festschrift for Masaru Kajita*, 538─550. Tokyo: Kaitakusha.

Namiki, Takayasu. 2005. Nihongo no atarashii taipu no fukugōgo: rinsu-in shanpū to rinsu-iri shanpū (A new type of compound in Japanese: *rinsu-in shanpū* and *rinsu-iri shanpū*). In Oishi,

Tsuyoshi & Nishihara, Tetsuo & Toyoshima, Koji (eds.), *Gendaikeigairon no chōryū* (Current morphological studies), 1─19. Tokyo: Kurosio.

Nishiyama, Kunio. 1999. Adjectives and the copulas in Japanese. *Journal of East Asian Linguistics* 8. 183─222.

Ohkado, Masayuki. 1991. On the status of adjectival nouns in Japanese. *Lingua* 83. 67-82.

Okimori, Takuya & Akutsu, Satoru (eds.). 2015. *Kotoba no shakuyō* (Language borrowing). Tokyo: Asakura.

Rainer, Franz. 2013. Can relational adjectives really express any relation? An onomasiological perspective. *SKASE Journal of Theoretical Linguistics* 10(1). 12─40.

Renner, Vincent. 2018. Structural borrowing in word-formation: An exploratory overview. *SKASE Journal of Theoretical Linguistics* 15(2). 2─12.

Sakel, Jeanette. 2007. Types of loan: Matter and pattern. In Matras, Yaron & Sakel, Jeanette (eds.), *Grammatical borrowing in cross-linguistic perspective*, 15─29. Berlin: Mouton de Gruyter.

Sampson, Geoffrey. 1985. *Writing systems: A linguistic introduction*. Stanford: Stanford University Press.

Scalise, Sergio. 1984. *Generative Morphology*. Dordrecht: Foris.

Scalise, Sergio. 1992. Compounding in Italian. *Rivista di Linguistica* 4. 175─199.

Schmidt, Christopher K. 2009. Loanwords in Japanese. In Haspelmath, Martin & Tadmor, Uri (eds.), *Loanwords in the world's languages: A comprehensive handbook*, 545─574. Berlin: De Gruyter Mouton.

Seifart, Frank. 2015. Direct and indirect affix borrowing. *Language* 91(3). 511-532.

Shibatani, Masayoshi. 1990. *The languages of Japan*. Cambridge: Cambridge University Press.

Shimada, Masaharu. 2013. Coordinate compounds: Comparison between English and Japanese. *SKASE Journal of Theoretical Linguistics* 10(1). 77─96.

Shimada, Masaharu. 2017. Nihongo ni hidarigawashuyōbu no fukugōgo wa sonzaisurunoka (Does Japanese have left-headed compounds?). In Ha, Jeongil & Shimada, Masaharu & Kanai, Yuto & Nishina, Hiroyuki (eds.), *Gengo o meguru X shō*: *Festschrift for Professor Hiroyuki Nishina*, 40─52. Saitama University.

Shimada, Masaharu & Nagano, Akiko. 2011. *Zi*-nouns in Japanese and related issues. *Studies in Language and Literature: Language* 59. 75─106. University of Tsukuba.

Stanlaw, James. 1998. Review: *Language contact in Japan: A sociolinguistic history* by Leo J. Loveday (Oxford: Oxford University Press, 1996). *Language* 74. 395─397.

Stanlaw, James. 2004. *Japanese English: Language contact and culture contact.* Hong Kong: Hong Kong University Press.

Sugioka, Yoko. 2002. Incorporation vs. modification in deverbal compounds. *Japanese/Korean Linguistics* 10. 496–509.

Tsujimura, Natsuko. 2014. *An introduction to Japanese linguistics, third edition*. Malden, MA: Wiley Blackwell.

Yamada, Yuichiro. 2005. *Gairaigo no shakaigaku: Ingoka suru komyunikeishon* (Sociology of foreign words: Jargonizing communication). Tokyo: Shumpusha.

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