GENDER ASSIGNMENT TO LOANWORDS IN UKRAINIAN

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1. Introduction

The language of modern Ukrainian mass media abounds in English loanwords, which have become the major source of expanding Ukrainian vocabulary. Analyses of various aspects of their adaptation to Ukrainian have been conducted, from a morphological perspective (Muromcev 1986, Čursina 1998), a phonological and phonetic point of view (Rubach 2005, Haraščenko 2010, Filonik 2011), and a sociolinguistic perspective (Arxanhel's'ka 2011). The aspect of loanword integration I will focus on is gender assignment, i.e. I will analyse why English words, which are not specified for gender, are assigned one gender rather than another when entering Ukrainian wordstock.

Corbett (1994), Corbett and Fraser (2000), as well as Dahl (2000) claim that gender assignment may be based on two sorts of information about the noun, its meaning (semantic gender assignment) and its form (formal gender assignment). When gender is assigned semantically, the biological sex of the referent is taken into consideration: if a noun refers to a male animate referent, it is assigned masculine gender, and if a noun refers to a female animate referent, it is assigned feminine gender. On the other hand, in cases where no biological sex exists for the referent in question the phonological shape and morphological structure of the noun become the decisive factors in gender assignment. In the literature, analyses of loanword gender assignment support these claims (see, for example, investigation of gender assignment to English-origin nouns in Puerto Rican Spanish and Montreal French conducted by Poplack et al. (1982: 25), examination of adaptation of English-origin nouns in Ukrainian conducted by Budzhak-Jones and Poplack (1997: 235), as well as the analysis of gender assignment to English-origin nouns in the Spanish of the Southwestern United States done by Clegg and Waltermire (2009: 14).

In this paper, I will focus on formal assignment of gender to loanwords, leaving semantic gender assignment for future research. Thus, my research question is: what motivates formal assignment of a certain gender to Ukrainian loanwords borrowed from English? My goals in this paper are the following: 1) to propose a set of morphological gender-assignment rules for Ukrainian and illustrate their application, 2) to propose language-specific morpho-semantic rules and discuss how they assign gender to loanwords in Ukrainian.

The data used in the current research are a corpus of 247 loanwords extracted from articles published in the Ukrainian weekly newspaper "Dzerkalo Tyzhnia" ("Mirror of the Week") and the daily newspaper "Den"" ("The Day") in the period from Jan. 2007 to the present, as well as Ukrainian youth forums online from Jan. 2012 to the present. I extracted the data from all articles in every issue of "Dzerkalo Tyzhnia", all articles in one issue per week of "Den", and from weekly discussions of two or three topics on youth forums. These

Actes du congrès annuel de l'Association canadienne de linguistique 2013. Proceedings of the 2013 annual conference of the Canadian Linguistic Association. © 2013 Svitlana Filonik sources were selected for a number of reasons. Firstly, they cover a broad range of topics, e.g. culture, business, travel, environment, fashion, community, entertainment, thus, reflecting vocabulary changes, including adaptation of loanwords, in different contexts of communication. Secondly, these sources provided me with data from a range of speakers of different backgrounds (presumably, for example, authors of the newspaper articles considered are more educated than participants of youth forums). Thus, my generalizations regarding Ukrainian gender assignment are based on language intuitions of a varied group of speakers. I further substantiate these generatizations by taking into consideration my own intuitions, since I am a native speaker of Ukrainian. Finally, I selected these sources because they are electronically available.

The paper is organized as follows. Section 2 provides definitions of key terms and some descriptive background facts of Ukrainian gender. Section 3 analyses formal gender assignment to English loanwords in Ukrainian through application of morphological rules. Section 4 discusses application of more specific rules operating in Ukrainian, namely morpho-semantic rules, which assign gender on the basis of meaning, on the one hand, and form, on the other hand. Part 5 provides a summary of the most important conclusions.

2. Background

In this paper, I will adopt the definition of gender proposed by Zaliznjak (1964: 30), according to which genders are agreement classes of nouns. As claimed by Corbett (1994: 1348), two nouns are in the same agreement class only if they take the same agreements under all conditions. For example in (1), *pysanka* and *vyšyvanka* require the same agreement marker (inflection *-ja*) under the following conditions: each noun considered is in the nominative case, singular, and a part of an NP consisting of a modifier and a noun. Thus, *pysanka* and *vyšyvanka* belong to the same agreement class and are assigned the same gender, namely feminine.

- (1) a. syn-ja pysanka blue-FEM. pysanka 'blue pysanka' (blue Ukrainian Easter egg)
 - b. syn-ja vyšyvanka
 blue-FEM. vyshyvanka
 'blue vyshyvanka' (blue Ukrainian embroidered shirt)

Ukrainian has three genders (or agreement classes): masculine, feminine and neuter (see Horpynyč 2004 for a four-gender classification). Adjectives, participles, verbs in the past tense, pronouns (possessive, demonstrative, as well as some relative, interrogative, indefinite and negative), and ordinal numerals are the agreement targets in Ukrainian. As demonstrated in (2), the nouns *učen'* 'student (male)', *učenycja*' 'student' (female), and *m'jaso* 'meat' take different agreement targets. Thus, *učen'* agrees with the modifier *prac'ovytyj* and the predicate *zdav* in (2a), *učenycja* agrees with the modifier *ledašča* and the predicate *zdala* in (2b), and *m*"*jaso* agrees with the modifier *smačne* and the predicate *ležalo* in (2c).

(2)	a.	Prac'ovyt-yj hard-working- MASC	uč-en' student- MASC
		zdav- tvir. submitted- MASC essay 'A hard-working male stud	dent submitted an essay.'
	b.	Ledašč-a učenycja lazy- FEM student- FEM	ne 1 not
		zdal-a tvir. submitted- FEM essay 'A lazy female student did	not submit an essay.'
	c.	Na stoli ležal-o on table lay- NEUT 'On the table there was tas	smačn-e m"jaso. tasty- NEUT meat- NEUT ty meat.'

Since in this paper I discuss loanwords, there is a need to define this key term as well. I adopt the definition of loanwords suggested by Poplack et al. (1982: 9), wherein any noun which can be etymologically identified as having entered the Ukrainian language via English is considered as a borrowed noun. Thus, in my paper English is the source of borrowing, not necessarily the origin of borrowing.

3. Rules of Formal Gender Assignment in Ukrainian

3.1 Ukrainian System of Declensions

There seems to be general agreement in the literature that in cases where no biological sex exists for the referent in question the phonological shape of the noun (including loanwords) becomes the decisive factor in gender assignment (Poplack et al. 1982: 25, Zubin and Köpcke 1984: 41, Budzhak-Jones and Poplack 1997: 235, Clegg and Waltermire 2009: 14). In this paper, I assume that it is the morphological structure of a noun that plays the major role in gender assignment, the phonological shape being a realization of the morphology of a word.

In Ukrainian, there is a close relationship between a noun's gender and its inflectional class (in this paper, the terms "declension" and "inflectional class" are used synonymously). I will follow Aronoff's (1994: 64) definition of inflectional class: "a set of lexemes whose members each select the same set of inflectional realizations." Thus, two nouns belong to the same declension if they have the same inflections in all forms. It is worth mentioning, however, that the phonological form of inflections of words belonging to the same declension may slightly differ due to, for instance, purely phonological rules or constraints. For example, in the Instrumental case -oju occurs after non-palatalized ("hard") consonants (as in (3a)), while after a palatalized ("soff") consonant -eju is selected (as in (3b)). Therefore, nouns combining with different inflections

belong to the same inflectional class, if the choice between the inflections is predictable on independent grounds (Carstairs-McCarthy 2000: 632).

(3)	a.	zirk-a star-NOM.sg 'star'	zirk-oju star-INSTR.sg
	b.	kul-ja balloon-NOM.sg 'balloon'	kul-eju balloon-INSTR.sg

I claim in this paper that declension 1 nouns are masculine, declension 2 and 3 nouns – feminine, and declension 3 nouns are neuter in Ukrainian. Such a Declension – Gender interface is represented in Table 1 below.

Declension	Gender
1	MASC
2	FEM
3	
4	NEUT
5	

Table 1. The Declension – Gender Interface in Ukrainian.

Now it is important to discuss how nouns are classified into declensions in Ukrainian. Thus, I propose the system of Ukrainian declensions in Table 2^1 .

Declension	1	2	3	4	5
Case					
Nominative	id.	-a	id.	-о, -е	-a
Genitive	-a, -u	-у	-i	-a	-у
Dative	-u, -ovi	-i	-i	-u, -ovi	-i
Accusative	-a, id.	-u	id.	-o, -a	-a
Instrumental	-om	-oju	-ju	-om	-am
Locative	-i, -ovi	-i	-i	-i, -ovi	-i
Vocative	-е	-0	-е	-o, -u	-a

Table 2. Declension System in Ukrainian.

¹ The inflections provided in Table 2 are the transliterations of graphic representations of Ukrainian inflections.

It should be noted that Table 2 has been significantly simplified in the ways indicated in (1-3), but it will suffice to support my arguments in this paper: 1) it contains the endings in the singular only;

2) endings combining with stems in palatalized consonants have been omitted; 3) the endings given in column 5 are those of nouns with (oblique) stems in /t/only.

My classification differs from some traditional approaches to Ukrainian declension system (for example, those proposed by Bilodid (1969), Hryščenko (1997), Tyhoša et al. (2004), Juščuk (2008)) in at least two ways. Firstly, it divides nouns into five declensions based on their inflectional endings, as opposed to four. The need to divide one of the declensions (traditionally referred to as declension 2) into two different declensions (in my classification, those are declensions 1 and 4) seems justified, since inflections of nouns belonging to what I call declension 1 and 4 differ in the Nominative and Vocative case forms, and there is variation in the Genitive and Accusative case forms. Secondly, in my classification gender is predicted from declension, as opposed to predicting declension from gender. This would be impossible if we did not differentiate between declensions 1 and 4, since nouns belonging to them are assigned different genders. Importantly, in the alternative, i.e. traditional, approach, they resort to gender of the noun considered, its inflection in the nominative form, and presence of specific suffixes in oblique forms (for declension 4) in order to identify declension. Making use only of, for example, gender poses some difficulties: for instance, feminine nouns may belong to either declension 2 or 3. Therefore, my approach seems more economical.

A similar classification which enables one to predict gender from declensions is proposed by Nesset (2006). However, my classification differs from Nesset's (2006) as well in the ways described below. Firstly, it divides nouns into five declensions based on their inflectional endings, as opposed to six. This happens because, unlike Nesset (2006), I do not recognize indeclinable nouns, like those in (4), as a separate inflectional class, because they do not demonstrate any inflectional realizations, the form of the noun being identical in all cases. For example, the form of the noun in (4) remains unchanged in different cases:

(4)	kenhuru	kenhuru	kenhuru
	kangaroo-NOM.sg	kangaroo-GEN.sg	kangaroo-DAT.sg
	'kangaroo'		

Secondly, my classification includes exponents of inflectional classes that are missing in Nesset's (2006) classification. Compare the lists of inflections proposed for declension 4 nouns in Table 3.² The following inflections are missing in Nesset (2006: 320): -e in nominative (as in hor-e 'ordeal'), -ja in accusative (as in hor-ja ne bačyv 'did not see the ordeal'), -ovi in dative (as in dav dytjatk-ovi 'gave to a child'), -ovi in locative (as in na dytjatk-ovi 'on a child'), and -u in vocative (as in *dytjatk-u* 'child). Thirdly, my study is based on the analysis of both native Ukrainian vocabulary and loanwords, while Nesset (2006) focuses solely on native Ukrainian words.

² Both Nesset (2003) and I only included inflections for the hard group of declension 4 nouns.

Case	Nesset (2006)	Filonik (2013)
Nominative	-0	-o, -e
Accusative	-0	-o, -ja
Genitive	-a	-a
Dative	-u	-u, -ovi
Instrumental	-om	-om
Locative	-i	-i, -ovi
Vocative	-0	-0, -u

Table 3. Declension 4 Noun Inflections.

3.2 Morphological Rules of Gender Assignment

Based on the correspondence between Declension and Gender in Ukrainian presented in Table 1, I propose the set of morphological gender assignment rules in (5).

(5) RULE 1: Declension $1 \rightarrow MASC$ RULE 2: Declension $2 \rightarrow FEM$ RULE 3: Declension $3 \rightarrow FEM$ RULE 4: Declension $4 \rightarrow NEUT$ RULE 5: Declension $5 \rightarrow NEUT$

According to the rules in (5), nouns which belong, respectively, to declension 1 are assigned masculine gender, those belonging to declensions 2 and 3 are assigned feminine gender, and nouns belonging to declensions 4 and 5 are assigned neuter gender. Below, I will discuss the application of these rules as a part of the mechanism of assigning gender to loanwords in Ukrainian in detail.

Formal assignment of gender to an English loanword in Ukrainian involves three stages: 1) identification of the inflection and the stem, 2) identification of the form of the loanword with a declension in the host language, and 3) application of the RULES 1-5 in assigning gender to nouns considered. For example, when a Ukrainian speaker wants to use words *brend* (6a) or *kola* (6b) in Ukrainian, he or she most likely identifies them as nominative case nouns and draws the parallel to existing Ukrainian nouns that resemble them phonologically, e.g. *brend* – *stend* 'poster holder' and *kola* – *zola* 'cinder'.

- (6) a. brend 'brand'
 - b. kola 'Cola'

The stems of the nouns considered are identified by analogy with *stend* and *zola*, i.e. *brend* and *kol* are identified as stems. Next, the speaker inflects the stems of *brend* and *kola* with the same affixes as *stend* and *zola* in corresponding forms.

For example, *brend-/stend-* and *kol-u/zol-u* in the accusative case, and *brend-om/stend-om* and *kol-oju/zol-oju* in the instrumental case. This means that the loanwords are identified with the same inflectional classes as the Ukrainian words phonologically resembling them. Namely, *brend* and *stend* are identified as declension 1 nouns, while *kola* and *zola* are identified as declension 2 nouns. Finally, according to morphological rules 1 and 2 above, declension 1 nouns, including *brend*, are assigned masculine gender, while declension 2 nouns, including *kola*, are assigned feminine gender. Having outlined the mechanism of gender assignment to loanwords in Ukrainian, I will now provide some examples of words associated with declensions from 1 to 5 and discuss some of my observations regarding assignment of gender to those examples.

Declension 1

English-origin consonant-final-stem nouns borrowed by Ukrainian which in 7 Ukrainian cases have forms indicated for declension 1 nouns in Table 2 above are identified as belonging to declension 1. Examples of such loanwords are provided in (7). According to RULE 1 above (Declension $1 \rightarrow MASC$), such nouns are assigned masculine gender in Ukrainian.

- (7) a. botoks 'botox'
 - b. frik 'freak'
 - c. sytkom 'sitcom'
 - d. fandreizynh 'fundraising'
 - e. smartfon 'smart phone'

Declension 2

English consonant-final-stem nouns are identified as declension 2 nouns when they have inflections indicated for declension 2 nouns in the Table 2. Words in (8) are the examples of such nouns. According to RULE 2 (Declension $2 \rightarrow FEM$), such nouns are assigned feminine gender.

- (8) a. kola 'Cola'
 - b. veb-kamera 'web camera'

- c. fanta 'Fanta'
- d. plazma 'plasma (TV)'
- e. parka 'parka'

Declension 3

While identification of loanwords considered with declensions 1 and 2 and assignment of gender to those loanwords is regular and did not involve any exceptions, my search for loanwords identified as belonging to declension 3 presented me with an interesting puzzle. Before discussing the puzzle, however, it is necessary to describe what words belong to Ukrainian declension 3. According to Tyxoša et al. (2004:52), most nouns whose stems end in a postalveolar sibilant (/ʃ/, /ʧ/, /ʒ/, and /dʒ/) or any palatalised consonant and which are uninflected (or according to some approaches bear a null-affix) in the Nominative case belong to declension 3. Table 2 illustrates the set of inflections present in different forms of declension 3 nouns. The Ukrainian examples of such declension 3 nouns are provided in (9a–e). All nouns in (10a–e) are assigned feminine gender by RULE 3 (Declension 3 \rightarrow FEM). However, there are a number of nouns whose stems end in post-alveolar sibilants or palatalised consonants that are identified with declension 1 and, thus, assigned masculine gender, according to RULE 1, as demonstrated in (9f–j).

- (9) a. tin' 'shade'
 - b. nič 'night'
 - c. pič 'oven'
 - d. vis' 'axis'
 - e. podorož 'trip'
 - f. boršč 'borscht'
 - g. plašč 'raincoat'

- h. bil' 'pain'
- i. niž 'knife'
- j. plač 'crying'

Hence, there is ambiguity in identifying English nouns displaying such a phonological form (post-alveolar sibilant / palatalised consonant, with the form in the nominative case identical to the base / followed by a zero inflection) with a declension in Ukrainian, since they can belong to either declension 1 or 3. Since most of the nouns with the above phonological characteristics belong to declension 3, one would expect loanwords like those in (10) to be identified as declension 3 nouns. However, the puzzling situation is that all the English loanwords considered which have stems ending in post-alveolar sibilants are identified with declension 1 and assigned masculine gender. This shows that frequently encountered patterns are not always productive. One of the possible explanations for this phenomenon is that there is a tendency for loanwords to take on the so-called 'unmarked' gender of the host language (Poplack et al. (1982: 5), Clegg and Waltermire (2009: 1)), which presumably is masculine in Ukrainian.

- (10) a. spič 'speech'
 - b. frenč 'French (nails)'
 - c. lanč 'lunch'
 - d. branč 'brunch'
 - e. freš 'freshly squeezed juice'

Declension 4

Ukrainian declension 4 nouns have a consonant-final stem and are inflected with affixes provided in Table 2 for for declension 4 in different cases. English loanwords in (11) below are identified with this declension, hence, being assigned neuter gender, according to the morphological rule RULE 4 (Declension $4 \rightarrow \text{NEUT}$).

(11) a. afro 'Afro (dance)'

- b. avto 'auto(mobile)'
- c. avocado 'avocado'
- d. kakao 'cacao'
- e. kazyno 'casino'

Declension 5

Ukrainian declension 5 nouns are rare: the class consists of six nouns in (12), as well as diminutives, e.g. those in (13). In various forms they take the inflections listed in the Table 2 for declension 5 nouns. In the corpus of loanwords considered, there are no nouns identified with those belonging to declension 5. Presumably, this lack of loanwords belonging to this inflectional class can be accounted for by the fact that declension 5 is unproductive in Ukrainian. Thus, all the analyzed nouns whose stems end in a consonant followed by -a/-ja in the nominative case are identified as declension 2 nouns and assigned feminine gender, e.g. *manija* 'mania'.

- (12) a. plem"ja 'tribe'
 - b. tim"ja 'top (of a head)'
 - c. sim"ja 'family'
 - d. vym"ja 'udder'
 - e. im"ja 'name'
 - f. polum"ja 'flame'
- (13) a. vedmeža 'bear cub'

- b. ščenja 'puppy'
- c. dytynča 'baby'
- d. jahnja 'lamb'
- e. noženja 'little foot'

3.3 Morpho-Semantic Rules of Gender Assignment

Some data in my corpus show that the morphological rules postulated so far, as well as semantic rules (which I have not considered in this paper) are not sufficient to account for the gender of all nouns in Ukrainian. Thus, I propose language-specific morpho-semantic rules which can also be used for gender assignment. Such rules are referred to as "morpho-semantic" since they involve a semantic feature in addition to the morphological information about the declension. Below I will discuss two such rules.

Nouns with augmentative suffixes, like those in (14), demonstrate inflections -o or -e in the nominative case, -a in the genitive, -u or -ovi in the dative, -o or -e in the accusative, -om or -em in the instrumental, -i or -ovi in the locative, and -o, -e, or -u in the vocative case, i.e. they are declined as declension 4 nouns.

- (14) *a. smartfon-ys'ko* 'very powerful smartphone'
 - b. *brend-yšče* 'very popular brand'
 - c. *lanč-yšče* 'very big lunch'
 - d. *kvilt-yšče* 'very big quilt'
 - e. xit-yšče 'great hit'

According to the RULE 4 presented above (Declension $4 \rightarrow \text{NEUT}$), nouns in (14) must be assigned the neuter gender, as, for example, in (15).

(15)	a.	baba	syl 'n-e	babyšče
		woman-FEM	strong-NEUT	(big) woman

b.	noha	m'jazyst-e	nožyšče
	leg-FEM	muscular-NEUT	(big) leg

However, as demonstrated in (16), the agreeing modifier *spravžn-ij* is masculine.

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(16) spravžn-ij smartfonys 'ko
'real-MASC powerful smartphone'
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I assume that such an incongruity occurs because there is a more specific rule at work in Ukrainian. This morpho-semantic rule ensures that affixation of masculine nouns which involves augmentative affixes results in the derivation of masculine nouns that decline like those belonging to declension 4. The rule described above can be formalized as follows:

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(17) RULE 6: N MASC + Aff AUGM \rightarrow N Decl. 4, MASC
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Another example that cannot be accounted for by the morphological rules presented above is gender assignment to indeclinable nouns. Such nouns (see (18) for examples) preserve the same form in all seven cases both in singular and plural.

(18) a. jevro 'Euro'
b. peso 'peso'
c. eskudo 'escudo'
d. tenhe 'tenge'
e. sukre 'sucre'

All the nouns in (18) are masculine in Ukrainian. What they have in common is that they all denote currency units; thus I assume that this fact should be taken into account when formulating a morpho-semantic rule of gender assignment to nouns like those in (18). According to this rule, indeclinable nouns which denote currency units are assigned masculine gender in Ukrainian:

(19) RULE 7: Indecl. N, currency unit \rightarrow MASC

Following the assumptions of Nesset (2003: 77), I can presume that such gender assignment is related to the gender of the hyperonym. Thus, the hyperonym of the nouns in (18) *hrošovyj znak* 'currency unit' is masculine in Ukrainian. This assumption is supported by the observation that all other analyzed nouns denoting currency units in my database are masculine, e.g. *dollar* 'dollar', and *funt* 'pound'.

4. Conclusions and Implications

In the literature on loanword integration, various factors involved in the assignment of gender to loanwords are discussed. I conclude in this paper that the declension system is essential in assigning gender to English words borrowed by Ukrainian (as well as to words of Ukrainian origin). Identification of the form of the loanword analysed with one of the five proposed declensions and subsequent application of the proposed morphological or morpho-semantic gender assignment rules successfully account for the data considered.

This research has contributed to the theory of loanword assimilation by analyzing gender agreement involving English loanwords borrowed by Ukrainian. It can also benefit grammatical gender studies by providing additional evidence for semantic and formal gender assignment rules discussed, for example, by Corbett (1994). What is more, the analysis of loanwords has shed light on general gender assignment principles which operate in Ukrainian. Finally, an important implication is that if my analysis is correct, declension, not gender, must be specified in the Ukrainian lexicon.

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