Andra KALNAČA, Tatjana PAKALNE
Latvijas Universitāte

SEMANTICS OF PRODUCTIVELY FORMED REGULAR DERIVATIVES IN CONTEXTUAL USE: THE CASE OF THE LATVIAN AGENTIVE SUFFIX *-tāj-*

Abstract. Productive derivation is a generic means for satisfying specific naming needs that arise in concrete contexts and situations. The semantics of productively formed regular derivatives as context-free pairings of form and meaning (i.e. taken out of context, as 'dictionary words'), is therefore necessarily schematic or underspecified (we will call this 'minimal derivational semantics'). In actual language use, when deriving a novel productively formed derivative or invoking a previously circulating derivative as a 'novel' productive formation, the minimal derivational semantics is enriched to fit specific naming needs. Latvian has a rich system of productive word formation featuring, primarily, suffixation, prefixation, some circumfixation, a few derivational endings, and compounding (see, e.g., K a l n a č a , L o k m a n e 2021). The agentive nominalising suffix *-tāj-* is one of the most productive category–changing derivational suffixes in contemporary Latvian. The generic derivational meaning of the word-formation pattern $V_{suffixal}$+ *-tāj-* → N is traditionally broadly defined as 'a bearer of a property expressed in relation to an action' (S o i d a 2009), which, in this particular wording, allows for different semantic roles (e.g., agent, experiencer, instrument, causer) and even syntactic arguments (e.g., S or Obj 'smth to do V with') of a *-tāj-* noun in relation to the source verb. In this study, we argue that the semantic diversity of *-tāj-* derivatives arises mostly due to contextual specification, i.e. adjusting the generic derivational meaning of the word-formation pattern to specific naming needs, while at the highest level it is very simple. We then suggest five contextual semantic features to describe the ways in which the rich contextual semantics of *-tāj-* derivatives differs from their minimal derivational semantics. It should be emphasised that our focus has been on studying concrete contextual uses and registering any semantic differences that we happen to encounter without attempting to build them into existing syntactic or lexical semantic frameworks, although the model of the semantics of derivationally and semantically complex words has been inspired by L i e b e r 's (2004; 2017) ideas. The derivatives used in this study were extracted from the The Balanced Corpus of Modern Latvian LVK2018 while contextual uses were analysed based on contexts found in the The Latvian National Corpora Collection.
Keywords: Latvian; agent noun; derivation; derivational semantics; contextual use; semantic feature.

1. Introduction

The 'agentive' nominalizing suffix *-tāj-* is one of the most productive category-changing suffixes in contemporary Latvian. It attaches to the infinitive stem of verbs having the suffixes *-ā-, -ē-, -ī-, -inā-, -o-* [uo] in the infinitive. The generic derivational meaning of the word-formation pattern $V_{suffixal}$ + *-tāj-* → N, i.e. the meaning shared by all regular *-tāj-* derivatives, is traditionally broadly defined as 'a bearer of a property expressed in relation to an action' (S o i d a 2009, 64). This definition is carefully formulated so as to accommodate all possible kinds of referents, recognising the diversity of meanings that the word-formation pattern produces in actual language use, as in (1):

(1) a. *sarakst-ī-t* 'to write up' → *sarakst-ī-**tāj**-s* 'writer (up)'
     b. *pārliec-inā-t* 'to convince' → *pārliec-inā-**tāj**-s* 'convincer'
     c. *uzird-inā-t* 'to loosen up (soil, etc.)' → *uzird-inā-**tāj**-s* 'loosener (up) (of soil, etc.)'

At the highest, i.e. most generic level, all *-tāj-* derivatives in Latvian are either an 'S in some type of relation to V' (2) or an 'Obj to V with' (an instrument in the narrow sense) (3), the latter being rather rare, to the point that its existence has been questioned (e.g., N a u 2013):

(2) a. *Bet* **klauvētājs** *tikpat* *iekšā* *tikt* *nevarēja,*
         but knocker.NOM.SG anyway inside get.INF not_can.PST.3
         jo durvis bija aizbultētas.
         'But the knocker could not get in anyway, because the door was bolted.' (Karogs)
     b. *Tagad redzēju, ka ābeles galotne slienas nekustīga, tātad valdīja bezvējš,*
         un **klauvētājs** *nevarēja* *būt* *zars.*
         and knocker.NOM.SG not_can.PST.3 be.INF branch.NOM.SG
         'Now I saw that the top of the apple tree was motionless, so there was no wind, and the knocker could not have been a branch.' (Karogs)

(3) *Māju* *durvīm* *ir* *divi* **klauvētāji** –
     house.GEN.PL door.DAT.PL be.PRS.3 two.NOM.PL knocker.NOM.PL
     viens apaļš un resns, otrs tievs un garš. (Tīmeklis2020)
     'The door of the house has two knockers – one round and thick, the other thin and long.'

To distinguish between 'S' and 'Obj' referents, we suggest a simple test, which consists in checking whether there is a conceivable context, in which a

–tāj– derivative can be used as an object in relation to the action denoted by the source verb: this is not possible for 'S' derivatives, but is possible for 'Obj' derivatives, as in (4a) for (3) and (4b) for (2b) (both – constructed examples):

(4) a. *Pauls   pieklauvēja   pie   durvīm*
         Pauls.NOM.SG   knock.PST.3   on   door.DAT.PL
         ar   apaļo   durvju   klauvētāju
         with   round.INS.SG   door.GEN.PL   knocker.INS.SG
         'Pauls knocked on the door with the round knocker.'
     b. **Kāds   klauvēja   pie   loga*
         someone.NOM.SG knock.PST.3   on   window.GEN.SG
         ar   klauvētāju   [zaru].
         with   knocker.INS.SG [branch.INS.SG]
         '*Someone was knocking at the window with a knocking [branch].'

Admittedly, there is also a third type of generic meaning that *–tāj–* derivatives are capable of expressing, falling outside the broad definition provided above. Namely, *–tāj–* derivatives may refer to an action itself rather than to any of the arguments of the source verb. However, such examples are rare and may not be part of regular *–tāj–* derivation in contemporary Latvian, as in (5):

(5) *Un viņa no tās reizes bija dabūjusi dūrējus galvā*
     un   stiprus   sirds   klapētājus ...
     and   strong.ACC.PL   heart.GEN.SG   palpitation.ACC.PL
     viņa bija pavisam slimīga!
     'And since then she started having stabbing pains in the head and strong heart palpitations ... she was completely sickly!' (LatSenRom)

In Latvian, the semantic roles fulfilled by 'S' *–tāj–* derivatives seem to be the result of an interaction between source verb and affix semantics, on the one hand, and specific naming needs arising in concrete contexts, on the other hand, e.g., AGENT, CAUSER, S-INSTRUMENT (6), possibly also FUNCTION, roles in addition to AGENT versus EXPERIENCER or POSSESSOR roles determined by source verb semantics. 'Obj' derivatives are OBJ-INSTRUMENTS.

(6) *Automātisko   apturētāju   lietošana*
     automatic.GEN.PL stopper.GEN.PL   use.NOM.SG
     dod iespēju celt iekārtas ražīgumu, samazināt atkritumus un ietaupīt izejvielas.
     'The use of automatic stoppers helps increase the productivity of the equipment, reduce waste and save raw materials.' (Jaunatne)

In rare cases, source verb semantic requirements may be overridden producing unlikely derivatives, as in (7):

(7) *Lai kādos dziļumos nolaidies, lai kādos kalnos tu kāp,*
    mīlestība   *ir* –   **sāpētāja**.
    love.NOM.SG   be.COP.PRS.3   painer.NOM.SG
    'No matter how deep you descend, what mountains you climb, love aches.'
    (LitMāksla)

The observable range of semantic roles is consistent with the semantic model of semantically and derivationally complex words assumed in this study (see F i g u r e 1), which builds upon S o i d a's (2009) theory of word formation, L i e b e r's (2004; 2017) ideas on the semantics of complex words and work of various scholars on polysemy (see, e.g., A p r e s j a n 1974; A s h e r 2011; F a l k u m , V i c e n t e 2015).
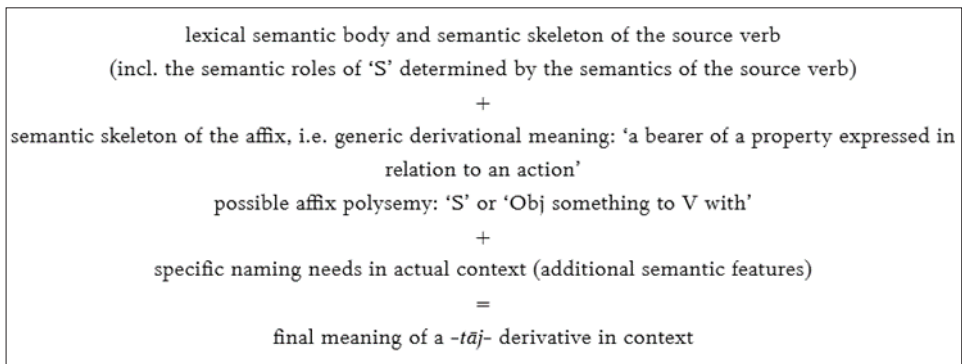

F i g u r e 1. **Semantics of productively formed *-tāj-* derivatives: the model assumed in this study**

The existence of 'S' and 'Obj' referents can, in principle, be attributed either to affix polysemy, i.e. affix's capability to express more than one generic meaning within distinct derivational models (also cf. example (5)), which would correspond to an affix having more than one semantic/grammatical skeleton in terms of Lieber's framework (also see discussion in Section 5); or to contextually determined specific naming needs. Other aspects of meaning that *-tāj-* derivatives have in contextual use but not out of context, i.e. as part of their generic derivational meaning, cannot be explained by affix polysemy

and need to be explained in a different way (we will call them contextual semantic features). The purpose of this study is, therefore, to identify and record these features as they are without trying, at this stage, to build them into any pre-existing framework.

2. The semantics of Latvian *-tāj-* derivatives in literature

The most detailed treatments of *-tāj-* derivatives in Latvian are provided in Endzelīns (1951), Ahero et al. (1959) and, more recently, Nau (2013); shorter summaries are included in Navickaitė-Klišauskienė (2013); Nītiņa, Grigorjevs (2013; and Kalnača, Lokmane (2021).

Overall, in describing the semantics of attested *-tāj-* derivatives, grammars follow an approach which builds upon two basic semantic distinctions. The first draws a line between living beings, on the one hand, and tools, mechanisms, devices, and machines, on the other hand. The second, applying mostly to the group of living beings, concerns different types of relations between an action denoted by a source verb and an animate referent of a *-tāj-* derivative, e.g., a) someone who carries out an action at a certain moment or for a certain period of time, b) someone who is capable of, knows how, wants or is ready to carry out an action, c) someone who usually carries out or all the time tends to carry out an action (habitual action), sometimes as a permanent property or feature, d) names of occupations or professions (Ahero et al. 1959, 107–108, 152–154; Kalnača, Lokmane 2021, 131–136).

Although classifications of this sort capture many subtler aspects of the rich contextual semantics of *-tāj-* derivatives, they also produce category membership mismatches. On the one hand, *-tāj-* derivatives may refer to all kinds of inanimate referents, not just tools, mechanisms, devices or machines, e.g., organisations, countries, substances, things (8a), natural (8b), psychological or physiological phenomena, body parts, abstract concepts (8c), states of affair (8d), actions (8e) (also see Section 4.1. for additional examples):

(8) a. *Ja paklājs tiek izvēlēts pareizi, ja viņš ir piemērots interjera krāsu gammai, tādā gadījumā, šis interjera elements būs*

ikviena   mājokļa   rota   un   **harmonizētājs**.
any.GEN.SG   home.GEN.SG   adornment.NOM.SG and   harmoniser.NOM.SG

'If a carpet is chosen correctly, if it is of a suitable colour range, it will be an adornment and harmoniser of any home.' (Tīmeklis2020)

b. <u>*Pērkona lietus*</u> *ik dienas stundas garumā kalpoja*

kā	*putekļu*	**slaucītājs**	*un*	*papildu*	*jautrības*	**radītājs**,
as	dust.GEN.PL	sweeper.NOM.SG	and	extra	fun.GEN.SG	creator.GEN.SG

bet naktis bija vasarīgi siltas.

'The daily hour-long thunderstorms helped sweep dust away and created extra fun, while the nights were summer-warm.' (Tīmeklis2020)

c. *Līdz ar to subjekts vairs nepiedalās vēsturiskās situācijas veidošanā, bet nododas fiktīvās* <u>*masu kultūras*</u> *ietekmei,*

kas	*ir*	*reālās*	*dzīves*	**aizvietotāja**.
which.NOM	be.COP.PRS.3	real.GEN.SG	life.GEN.SG	substitute.NOM.SG

'Thus, a subject no longer participates in the creation of the historical situation, but surrenders to the influence of the fictitious mass culture, which is a substitute for real life.' (LVK2022)

d. *Arī* <u>*neformālās izglītības pieejamība*</u>

ir	*būtisks*	*nevienlīdzības*	**veicinātājs**.
be.COP.PRS.3	major.NOM.SG	inequality.GEN.SG	contributor.NOM.SG

'Access to non-formal education is also a major contributor to inequality.' (LVK2022)

e. <u>*Šķūņa atjaunošana*</u> *būs netradicionāls, bet saturiski papildinošs*

muižas	*kompleksa*	*teritorijas*	*attīstības*
manor.NOM.SG	complex.GEN.SG	territory.GEN.SG	development.GEN.SG

papildinātājs	*un*	**veicinātājs**.
adder.NOM.SG	and	contributor.NOM.SG

'The renovation of the barn will be an unconventional, but a meaningful addition and contribution to the development of the manor complex.' (LVK2022)

On the other hand, various types of referent–action relations are also possible for inanimate, not just animate referents. In addition, there are some semantic features present in contextual meanings that are not covered within this descriptive approach (see Section 4).

Nau's (2013) work provides a different perspective, which offers useful insights relevant to the current study. Firstly, while stating that *-tāj-* nouns are specialised for the meaning 'one that v-s', which she considers to be the only invariant meaning present in all *-tāj-* derivatives, and that nouns with *-ēj-/-tāj-* never express instruments in the narrow sense ('something to v with'), admitting at the same time that this view may be nowadays becoming outdated, Nau makes an important observation, consistent with literature on agentive nouns in other languages (e.g., Alexiadou 2017), that the semantic role of the syntactic 'S' in *-tāj-* derivatives is not restricted to AGENT.

Secondly, N a u (op. cit.) introduces a distinction between a type and a role reading of agentive nouns similar to B a a y e n , N e i j t's (1997) conceptual vs. referential function (of Dutch *-heid* '-ness' nouns). Type derivatives are used to designate or establish a type "where the referent of the agent noun is characterized by the action or state expressed by the verb", while role derivatives "indicate that someone has, at a given moment or in a given situation, a certain role", "an individual is referred to by its role as the main participant in the event named by the verb" (N a u 2013, 85). N a u (ibid.) illustrates the type–role distinction with examples where types and roles are expressed by different affixes, as in (9):

(9) a. *rakst-niek-s – rakstī-tāj-s* 'writer'
   b. *dzēr-āj-s – dzēr-ēj-s* 'drinker'
   c. *mel-is – melo-tāj-s* 'liar'
   d. *pļāp-a – pļāpā-tāj-s* 'chatterbox'

N a u (ibid.) also offers examples where type and role readings are possible for derivatives formed by means of one and the same affix, e.g., *dziedātājs* 'singer' (occupation, i.e. type, and someone singing at a particular moment, i.e. role), *profesionāls lietussargu aizmirsējs* 'a professional umbrella-forgetter' (type) vs *potenciāls naudas aizmirsējs* 'a potential forgetter of money' (role). Some of the examples illustrating type readings name occupations, others – persons characterised by actions they tend to or habitually engage in.

While the type–role distinction may be useful at some level of genericity, it is not sufficient for capturing subtler semantic features occurring in context (see Section 4). E.g., animate and inanimate 'type' referents may be named as bearers of a property expressed in relation to an action because they are specialised for performing precisely that action and exist, at least within the scope of the context, only in connection with this function of theirs, as in (10):

(10) a. [−ANIMATE, +SPECIALISATION: substance]
    Kosmetologi iesaka izmantot
    *netaukainus   acu   kosmētikas   **noņēmējus**.*
    non-greasy.ACC.PL eye.GEN.PL make-up.GEN.SG remover.ACC.PL
    'Cosmetologists recommend using non-greasy eye makeup removers.'
    (LVK2022)

b. [+ANIMATE, +SPECIALISATION: person]
Ir gan dziednieki, gan zīlnieki, gan gaišreģi,

lāstu	**noņēmēji**	*un*	*bioenerģētiķi,*
curse.GEN.PL	dispeller.NOM.PL	and	bioenergy_therapist.NOM.PL

gan arī tādi, kas strādā ar saules enerģiju.
'There are healers, fortune tellers, clairvoyants, curse dispellers and bioenergy therapists, as well as those who work with the energy of the sun.' (LVK2022)

c. [−ANIMATE, +SPECIALISATION: device]

Vienkārši pārvelciet	*pūku*	*un*	*spalvu*
just swipe.IMP.PL.2	lint.GEN.PL	and	feather.GEN.PL

noņēmēju
remover.ACC.SG

pāri izvēlētajai virsmai un visas pūkas un spalvas pie tā pielips.
'Just swipe the lint and feather remover over your chosen surface and all the fluff and feathers will stick to it.' (Tīmeklis2020)

Conversely, 'type' referents may also exist independently of this capability and still not be associated to any particular event in which they are participants, as in (11):

(11) a. [−ANIMATE, −SPECIALISATION: action]
Karošu grebšana ir

lielisks	*stresa*	*vai*	*dusmu*	**noņēmējs,**
excellent.NOM.SG	stress.GEN.SG	or	anger.GEN.PL	reliever.NOM.SG

jo, kamēr cilvēks ir darba procesā, tikmēr ķibeles jau ir aizmirsušās.
'Spoon carving is an excellent means for relieving stress and anger because by the time one has finished working, one's troubles are already forgotten.' (Tīmeklis2020)

b. [+ANIMATE, −SPECIALISATION: animal]

Suņi	*ir*	*lieliski*	*stresa*	**noņēmēji.**
dog.NOM.PL	be.COP.PRS.3	great.NOM.PL	stress.GEN.SG	reliever.NOM.PL

'Dogs are great stress relievers.' (LVK2022)

c. [−ANIMATE, −SPECIALISATION: substance]
Sakaltētu, samaltu lauru lapu un apelsīnu mizu pulveris ir labs zobu aplikuma

un	*citu*	*lieko*	*kārtu*
and	other.GEN.PL	unwanted.GEN.PL	deposite.GEN.PL

abrazīvs	**noņēmējs.**
abrasive.NOM.SG	remover.NOM.SG

'A powder made of dried ground bay leaves and orange peel is a good abrasive remover of dental plaque and other unwanted deposits.' (LVK2022)

In addition, the type–role axis does not provide a means for distinguishing between 'type' referents that are merely capable of carrying out an action (as in (11)) and those that are supposed to have carried out that action in order to qualify as referents (12). E.g., to be called 'a professional umbrella-forgetter' one has to have forgotten an umbrella on multiple occasions, i.e. to have participated in several events, which would then make them also a 'role' referent (in contextually implied events).

(12) *Tagad ir smuki, varu te pieņemt*
    savus   *piegādātājus*   *un*   ***noņēmējus*.**
    my.ACC.PL   supplier.ACC.PL   and   buyer.ACC.PL
    'Now it's nice, I can receive my suppliers and [wholesale] buyers here.' (LVK2022)

Likewise, the type–role distinction does not reflect the differences between a specific single action, in which 'role' referents are participants, and specific repeated actions, habitual actions, generalised or hypothetical actions, etc. Overall, we believe that a broader inventory of contextual semantic features that *-tāj-* derivatives acquire in actual language use in order to fit specific naming needs beyond the generic derivational meaning offers a better account of the semantic diversity of *-tāj-* derivatives than do minimalistic classifications.

In assessing the possible range of contextual semantic features of *-tāj-* derivatives, this study draws from ideas developed by various scholars in publications on deverbal agentive nouns from a typological perspective (e.g. Koptjevskaja-Tamm 1993; Nau 2013; Alexiadou 2017), event-relatedness of *-er* nominals (e.g., Rappaport Hovav, Levin 1992); types of *-er* nominals, e.g., dispositional versus episodic *-er* nominals (Alexiadou, Schäfer 2010; Roy, Soare 2013); the external argument generalisation (Booij 1986; Levin, Rappaport Hovav 1988; Rappaport Hovav, Levin 1992); as well as types of instruments, most importantly, concerning the causer role of some inanimate referents of 'agentive' nouns (Kamp, Rossdeutscher 1994; Alexiadou, Schäfer 2006).

However, in the course of the current analysis of language material, we have found that some concepts, such as event-relatedness, provide a better fit if applied to Latvian *-tāj-* derivatives in a narrow, specific sense, which is not related to the availability of the source verb's argument structure in *-tāj-* derivatives, but rather is tied to truth conditions, as far as the scope

of the available context suggests (whether a referent has to have actually participated or is expected to participate in an event). Other concepts, e.g., dispositional–episodic or type–role nominals, broadly correspond in this study to a combination of two or more contextual semantic features.

3. Data sources and methods

The list of deverbal *-tāj-* derivatives used in this study consists of 1288 lemmas extracted from the Database of Latvian Morphemes and Derivational Models (a currently ongoing project, 2023–2026, see: https://www.dlmdm. lu.lv/en/), which contains manually validated lemmas from The Balanced Corpus of Modern Latvian LVK2018 (abbreviated as LVK2018, available at: http://hdl.handle.net/20.500.12574/11). The size of the corpus is approximately 10 million words.

Contextual meanings of *-tāj-* derivatives are analysed based on contexts included in "The Latvian National Corpora Collection" (abbreviated as LNCC, available at: https://www.korpuss.lv). The LNCC is a diverse collection of 34 corpora representing both written and spoken language and covering all important text types and genres. It consists of approximately 2.8 billion tokens.

Frequency information is provided in Table 1. Since frequency data are not manually validated, i.e. a small portion of lemmas may not be genuine *-tāj-* derivatives, we provide the figures as approximate:

Table 1. **Frequency of lemmas corresponding to *-tāj-* derivatives in LVK2018, nouns with masculine and feminine endings counted separately**

Lemmas	Frequency in LVK2018
Approximately 1000	<5
Approximately 800	<3
Approximately 600	1 (hapaxes)

The large proportion of low-frequency words fits in with the high productivity of the derivational pattern and suggests that many of these derivatives have been formed by language speakers as new words in concrete contexts rather than being pre-existing, established units of the lexicon. In addition, many *-tāj-* derivatives in the list are derived from prefixed verbs, which also points to at least some of them likely being new productive formations (13):

(13) a. *ie-pak-o-tāj-s* 'packer' < *ie-pak-o-t* 'to pack'
    b. *iz-trauc-ē-tāj-a* 'disturber, troublemaker' < *iz-trauc-ē-t* 'to trouble'
    c. *no-līdz-inā-tāj-s* 'smoother, equalizer' < *no-līdz-inā-t* 'to smooth out'

It must be pointed out that established (institutionalised) derivatives tend to have richer out-of-context semantics, often with some encyclopaedic contents attached to it and therefore are less dependent on contextual specification (14a–b). This is perhaps most evident when established derivatives are contrasted with productive derivatives with the same base, cf. examples (14) and (15).

(14) a. *zīmuļu **asinātājs*** 'pencil sharpener'
    b. ***modinātājs*** 'alarm clock'

(15) a. *Ir palielinājusies enciklopēdiskās literatūras aprite –*

izziņas	*krājumus*	*šķirsta*		
reference.GEN.SG	collection.ACC.PL	browse.PRS.3		
gan	*prāta*	***asinātāji,***	*an*	*skolēni,*
CONJ	mind.GEN.SG	sharpener.NOM.PL	CONJ	schoolchild.NOM.PL

    meklējot projektu darbiem nepieciešamo informāciju.
    'The circulation of encyclopaedic literature has increased – reference collections are browsed by those who wish to sharpen their minds and also by schoolchildren in search of information needed for project work.' (LVK2018)
    b. *Te dzimuši, mācījušies un darbojušies*

daudzi	*mūsu*	*tautas*	***modinātāji.***
many.NOM.PL	our.GEN.PL	nation.GEN.SG	awakener.NOM.PL

    'Many of those who contributed to the awakening of our nation were born, studied and worked here.' (LVK2018)

Given the abundance of various approaches to defining and measuring morphological and derivational productivity in linguistic literature, perhaps, a short explanation of what we mean by productively formed *-tāj-* derivatives in this study is required. When we speak of productively formed *-tāj-* derivatives we refer to productivity in the qualitative sense, i.e., invoking a live, readily available word-formation pattern to express a specific meaning in a concrete context (this has also been termed *availability* by some authors, e.g., B a u e r (2003)). This may be done either by online derivation or by using a previously stored derivative as a 'novel' regular formation adjusted to specific naming needs (see (14) and (15) for possible examples). Both ways

are open to language speakers, and it is immaterial, for the purposes of this study, which one is chosen by a particular speaker, as long as the derivative in question is semantically and formally regular in contemporary Latvian. The suffix *-tāj-* is also productive in the quantitative sense, which includes realised or past productivity; the degree of generalisation of the word–formation pattern; potential productivity, i.e., the broadness of the range of potential valid source verbs; and resultativity or profitability, i.e. the amount of 'new' derivatives produced in a certain time period (B a u e r 2003; B a r ð d a l 2008; B a a y e n 2009; see also A r o n o f f, L i n d s a y 2017), as evidenced by the high proportion of low-frequency words cited above.

4. Contextual semantic features

Having analysed the contextual uses of *-tāj-* derivatives extracted from "T h e B a l a n c e d   C o r p u s   o f   M o d e r n   L a t v i a n   LVK2018", we have singled out five contextual semantic features that reflect the differences between the rich contextual semantics of regularly formed deverbal *-tāj-* nouns and their generic out–of–context semantics: ANIMACY, SEMANTIC ROLE, SPECIALISATION, EVENT and TYPE OF ACTION. I.e. it is suggested that any given productively formed *-tāj-* derivative in language use can be characterised in terms of a combination of these feature values in addition to the minimal semantics arising from the source verb–affix semantics interaction (see Sections 1 and 2).

Features ANIMACY, SPECIALISATION, and EVENT are binary, while features SEMANTIC ROLE and TYPE OF ACTION are categorical. The feature TYPE OF ACTION only applies to +EVENT derivatives.

Some feature values are likely precluded by the lexical semantic body and/or the semantic skeleton of the source verb, on the one hand, and the state of the real world, on the other hand, e.g., animacy or certain semantic roles. Therefore, an effort has been made to include examples where one and the same source verb produces derivatives with different feature values.

4.1. Animacy

Many verbs can motivate *-tāj-* derivatives with both animate and inanimate referents (see Table 2). Most probably, at some conceptual level, the perception of the relation in which a referent of a derivative is intended to stand to the action expressed by the source verb differs depending on whether it is a living being capable of initiating an action in a way in which inanimate referents are not.

Ta b l e 2. **Latvian -*tāj*- derivatives and** ANIMACY

Derivative	Examples of types of +/− ANIMATE referents in LNCC	
	+ANIMATE	−ANIMATE
*veic-inā-**tāj**-s* 'promoter, facilitator'	a person	a substance, a source of information, the internet, an action, cooperation, a country, a player's experience in tennis games, a cathedral
*ie-dvesm-o-**tāj**-s* 'inspirer'	a person, an animal	a book, the sun, a political party, art
*pa-ātr-inā-**tāj**-s* 'accelerator'	a person	a facility, a device, society, a virus, war, substance
*rakstur-o-**tāj**-s* 'characteriser'	a person	a property or a feature, an inscription on a car, blood test results
*socializ-ē-**tāj**-s* '*socialiser*'	a person	cinema, family, school, work, television
*skal-o-**tāj**-s* '*washer, rinser, launderer*'	a person	a drink (milk – as a stomach rinser), a game, a bank

Animacy stands in complex relation to other contextual semantic features and cannot be eliminated entirely from the picture by, e.g., mapping certain semantic roles onto animate and inanimate referents, because animate referents can be AGENTS and EXPERIENCERS, but also CAUSERS, just like some inanimate referents, as in (16):

(16) a. [+ANIMATE, AGENT]
     Mēs to uzskatām par terora aktu,
     *kura   īstenotājiem,   **iedvesmotājiem** un   organizatoriem*
     what.GEN.SG perpetrator.DAT.PL inspirer.DAT.PL and   organizer.DAT.PL
     jāsaņem pelnītais sods.
     'We consider this to be a terrorist attack, and its perpetrators, inspirers, and organisers must receive the punishment that they deserve.' (LVK2022)

   b. [+ANIMATE, CAUSER]
     *Viens   no   maniem   galvenajiem   **iedvesmotājiem***
     one.GEN.SG of   my.DAT.PL   main.DAT.PL   inspirer.DAT.PL
     ir taustiņinstrumentālists Džo Zavinuls.
     'One of my main inspirations is the keyboardist Joe Zawinul.' (LVK2022)

   c. [−ANIMATE, CAUSER]
     *Šo   grāmatu   par   savu   **iedvesmotāju***
     this.ACC.SG book.ACC.SG   PREP   own.ACC.SG   inspirer.ACC.SG
     pārsvarā atzinuši vīrieši.

'Those who have recognised this book as their inspiration are mostly men.'
(LVK2022)

The feature value combination [−ANIMATE, AGENT] will often correspond to an organisation, a group of people, a country, etc. being conceptualised as person-like (17), while the combination [+ANIMATE, CAUSER] will often mean that an animate referent, including a person, is perceived to have produced a certain effect without directly intending to (16b).

(17) *Latvijas Darba devēju konfederācija kopš saviem pirmsākumiem ir*
  sociālā   *dialoga*   *un*   *korporatīvās*   *sociālās*
  social.GEN.SG dialogue.GEN.SG and   corporate.GEN.SG   social.GEN.SG
  atbildības   *platforma*   *un*   **popularizētāja**.
  responsibility.GEN.SG platform.NOM.SG and   promoter. NOM.SG
  'Since its inception, the Confederation of Latvian Employers has been a platform for and a populariser of social dialogue and corporate social responsibility.' (Ziņas)

Finally, ANIMACY also likely has a part in source verb and source verb sense selection, e.g., the verbs *iemīlēt* 'to fall in love with' > *ie-mīl-ē-tāj-s* 'someone falling in love with someone or something' or *prātot* 'to think, ponder' > *prāt-o-tāj-s* 'thinker, ponderer' are unlikely to motivate inanimate referents of *–tāj–* derivatives.

4.2. Specialisation

The binary feature SPECIALISATION draws a distinction between referents characterised by the action expressed by the source verb as the referent's sole or main function, at least within the scope of the concrete context, and referents that stand in some other type of relation to such action. It partly overlaps with the distinction between designations of professions vs. performers of an action not related to one's occupation, but SPECIALISATION is a better fit as it also covers inanimate referents, e.g., instruments, substances, body parts (see Table 3, also examples (10) and (11)).

While +SPECIALISATION most often goes hand in hand with −EVENT, −SPECIALISATION referents that are not participants of an event are also quite common (11) and (18):

Table 3. **Latvian -*tāj*- derivatives and SPECIALISATION**

Derivative	Examples of types of +/− SPECIALISATION referents in LNCC	
	+SPECIALISATION	−SPECIALISATION
*spodr-inā-**tāj**-s* 'polisher, bright- ener, polish'	a person (boot polisher, as a profession in the past), a ma- chine (floor polisher, boot pol- isher), a substance (polish)	a person (*tradīcijas spodrinātājs* 'a restorer, popularizer of a tra- dition'), vinegar (which can be used to polish brass and cop- per), lights (as accessories that brighten up room interiors)
*uz-lab-o-**tāj**-s* 'enhancer, addi- tive, improver'	soil improver (formulated specif- ically for the purpose), artificial colour and flavour enhancer	a patient (*savas veselības uzlabotājs* 'betterer of one's own health'), a priest, a sub- stance (molybdenum when used to enhance photoconduc- tivity), a machine (a photora- dar as an improver of traffic safety)
*skait-ī-**tāj**-s* 'meter, counter, numerator'	a device (meter), software, mathematical numerator, a per- son (*balsu skaitītājs* 'vote coun- ter' as an occupation), an ab- stract concept (*mafijas skaitītājs* 'extortion by a criminal mob when one's debt is growing with each day passing')	a person (*stundu skaitītāja, zvaigžņu skaitītājs* 'a counter of hours, stars')
*rakst-ī-**tāj**-s* 'writer', distinct from *rakst-**niek**-s* 'writer (of books)')	a device (*DVD rakstītājs* 'DVD writer'), software, song lyrics writer (as an occupation), book writer (in a sense similar to *rak- stnieks*), computer virus writer (of an established group associ- ated specifically with making computer viruses)	author of a (specific) letter, complaint, article, comment, etc., a person who burns mu- sic files onto CDs (*mūzikas rakstītāji* 'music file writers'), writers of computer scripts (any writers, not necessarily as an occupation)

(18) [−EVENT, −SPECIALISATION]
    Gaismekļi ir ne tikai lielisks aksesuārs,
    bet   *arī*   *interjera*   ***spodrinātājs**.*
    but   also   interior.GEN.SG   brightener.NOM.SG
    'Not only are lamps great accessories, they also brighten up room interiors.'
    (LVK2022)

[+ANIMATE, +SPECIALISATION] derivatives are usually names of professions, occupations, while [−ANIMATE, +SPECIALISATION] nouns are often devices, machines, instruments, computer programs, substances, as well as abstract concepts.

Finally, [+SPECIALISATION, −EVENT] and [−SPECIALISATION, −EVENT] referents seem to be often associated with different types of syntactic contexts.

4.3. Semantic role

The semantic roles that -tāj- derivatives correspond to in relation to the underlying proposition (i.e. the roles of the 'S' or 'Obj' argument of the source verb) are partly determined by source verb semantics, e.g., AGENT vs. EXPERIENCER vs. POSSESSOR, and partly specified in context, e.g., AGENT vs. EXPERIENCER vs. S–INSTRUMENT vs. OBJ–INSTRUMENT vs. CAUSER, as in Table 4.

Table 4. **Latvian -tāj- derivatives and semantic roles**

Derivative	AGENT	S–INSTRUMENT or OBJ–INSTRUMENT	CAUSER	EXPERIENCER
*mekl-ē-**tāj**-s* 'seeker, searcher'	a person	a search engine, a locating device		
*slim-o-**tāj**-s* 'somebody who is ill'				a person
*tic-ē-**tāj**-s* 'believer'				a person
*tiev-ē-**tāj**-s, no-tiev-ē-**tāj**-s* 'slimmer'	a person (purpose-fully try-ing to lose weight)			a person (losing weight without an indication that it is done on purpose, e.g., *broileru gaļa vislabāk nodrošina ar dzelzs apgādi gan grūtnieces, gan arī bērnus (kā arī ikvienu notievētāju).* 'broiler meat is the best supplier of iron to both pregnant women and children (as well as anyone who has lost weight)')

ap-reib-inā-**tāj**-s 'intoxicator'	a person		a substance	
ap-tur-ē-**tāj**-s 'stopper'	a person (smb. who has stopped smth. from happening)	a machine, device (*automātisks apturētājs* 'automatic stopper')	a substance (a bleeding stopping agent), a song (that temporarily interrupts the general flow of a larger performance)	
ap-vien-o-**tāj**-s 'unifier'	a person (*Lietuvas apvienotājs un valdnieks Mindaugs* 'Lithuania's unifier and ruler Mindaugas')	a device (*optiskais apvienotājs* 'optical combiner'), software (*grafisko datu formātu apvienotājs* 'aggregator of graphic data formats'), colour	war (*sabiedrības apvienotājs* 'unifier of society'), mythology (*ticības un zināšanas apvienotājs* 'unifier of faith and knowledge'), theatre, religion (e.g., paganism)	

For the purposes of this study, the semantic role of AGENT is assigned to referents who are humans, animals or collectives of people perceived as person-like if they purposefully, volitionally carry out or are capable of carrying out the action denoted by the source verb, whether they are or are not participants of an event. Instruments that can function as objects of the source verb are OBJ-INSTRUMENTS (also see section 1), while partially autonomous or machine-like referents are S-INSTRUMENTS. Animate referents that cause something to happen without directly intending to do so are CAUSERS, as are some inanimate referents, such as natural forces, substances, actions, abstract concepts.

Examples in (19) illustrate various feature value combinations for the source verb *modināt* 'to wake (transitive)':

(19) a. [+ANIMATE, −SPECIALISATION, −EVENT, AGENT]
Kaķis pasargā no vientulības. Kaķis prot mīļoties.

Kaķis	*var*	*būt*	*arī*	***modinātājs.***
cat.NOM.SG	can.PRS.3	be.INF	also	awakener.NOM.SG

'A cat protects from loneliness. A cat knows how to cuddle. A cat can also be a waking-up aid.' (LVK2022)

  b. [−ANIMATE, −SPECIALISATION, −EVENT, CAUSER]
Tādi dziesminieki kā Haralds Sīmanis, Andris Mičulis, Uldis Ozols un citi simboliski iezīmēja Atmodas laiku un

dziesminieku	*balsis*	*kā apziņas*	***modinātājus.***
singer.GEN.PL	voice.ACC.PL	as consciousness.GEN.SG	awakener.ACC.PL

'Singers such as Haralds Sīmanis, Andris Mičulis, Uldis Ozols and others symbolically marked the period of the Awakening and the singers' voices as awakeners of consciousness.' (LVK2022)

  c. [−ANIMATE, +SPECIALISATION, −EVENT, S-INSTRUMENT]
Un, jā, tiešām labi, ka bijām mājās

un	*zvanīja*	***modinātājs.***
and	ring.PST.3	alarm_clock.NOM.SG

'And, yes, it was really good that we were at home and the alarm clock was ringing.' (LVK2022)

Finally, some inanimate referents of *-tāj-* derivatives do not readily fit either the CAUSER, or the S- or OBJ-INSTRUMENT role, as in (20) and possibly (2b):

(20) *Skeleta muskuļi ir dažādi gan pēc formas – garie, īsie, platie, gan pēc uzdevumiem organismā –*

saliecēji,	*atliecēji,*	***grozītāji,***
flexor.NOM.PL	extensor.NOM.PL	rotator.NOM.PL

gan pēc šķiedru formas un veidojuma tajos.
'Skeletal muscles differ by shape – long, short, wide; by tasks in the body – flexors, extensors, rotators; and also by the shape and arrangement of fibers.' (LVK2018)

This suggests that the actual repertoire of semantic roles of *-tāj-* derivatives in Latvian may be broader than what we have proposed here, e.g., the semantic role of the derivative in (20) could perhaps be defined as FUNCTION.

4.4. Event

This binary feature reflects whether the referent of a *-tāj-* derivative is named so a) by virtue of actually performing, having performed or being

expected to perform the action in question, as far as the context allows to judge, in order for the underlying proposition to be true, or b) on the basis of some other kind of relation to that action, e.g., being considered to be able, competent or well-suited to perform it (see Table 5). I.e. EVENT does not hinge on the availability or presence of the argument structure of the source verb in the syntactic neighbourhood of a derivative, but rather on truth conditions.

Table 5. **Latvian** *-tāj-* **derivatives and EVENT**

Derivative	Examples of types of +/− EVENT referents in LNCC	
	+EVENT	−EVENT
*tais-ī-**tāj**-s* 'maker'	supper makers (on a specific occasion), selfie makers (habitual), movie makers (of a specific film), taxation policy makers (*nodokļu politikas taisītāji*), stunt makers (on a specific occasion: *nevarēja atraut acis no triku taisītājiem* 'couldn't take our eyes off the stunt performers'), the maker of a specific watch (*sastapt šī pulksteņa taisītāju*)	monument makers (of a firm), parents (in general), an installed alarm system (*trokšņa taisītājs* 'a simple noise maker'), a trouble maker (in general)
*žāv-ē-**tāj**-s* 'dryer'	a car (which caused asphalt to become drier on a specific occasion), a person (when using drying equipment), people drying or wishing to dry the hay in the field at a specific point in time	devices and machines (laundry, hair, hand dryers), wind (in general: *vējš, siena žāvētājs* 'wind, the hay dryer'), a plate rack, a person (various occupations related to drying smth), an abstract device (*smadzeņu žāvētājs ieslēgts atkal* 'they've switched on the brain dryer again')
*ad-ī-**tāj**-s* 'knitter'	a knitter (on a specific occasion, of a particular garment: *ideja un dizains mans, bet adītāja – mana krustdēliņa ome* 'the idea and design are mine, knitting – by my godson's granny')	a knitter (as a profession*: mūsu lieliskso audēju, adītāju darba telpu jautājums* 'the issue of a workspace for our wonderful weavers, knitters')

Although −EVENT often correlates with +SPECIALISATION and vice versa, it is not always the case (21) (also see (18) and (19) for examples of various feature value combinations):

(21) [+ANIMATE, −SPECIALISATION, AGENT or CAUSER, −EVENT]
Sieviete nav radītāja.

Sieviete	*ir*	*iznīcinātāja.*
woman.NOM.SG	be.COP.PRS.3	destroyer.NOM.SG

Vīrieši to saprot. Tikai viņi liekuļo.
'Women are not creators. Women are destroyers. Men understand this. It's just that they are hypocrites.' (LVK2018)

Within this construal, the 'professional umbrella-forgetter' from N a u 's (2013) example would correspond to the feature value combination [+ANIMATE, −SPECIALISATION, EXPERIENCER, +EVENT, HABITUAL].

4.5. Type of action

This categorical feature only applies to +EVENT derivatives and can, therefore, be viewed as an extension or a sub-feature of the EVENT feature. The feature TYPE OF ACTION further specifies the relation in which an action expressed by a source verb stands to the referent of a -*tāj*- derivative, distinguishing between a specific single action; specific repeated actions; a prolonged action, state or situation; habitual, characteristic actions; and possible, hypothetical, generalised actions or situations (see Table 6).

T a b l e 6. **Latvian** -*tāj*- **derivatives and** TYPE OF ACTION

*staig-ā-**tāj**-s* 'walker, stroller'	TYPES OF ACTION **in LNCC contexts**
specific single action	(22) *Nezināmais **staigātājs** laikam bija pārbaudījis, vai vārtiņi vaļā vai ciet.* 'The mysterious **walker** must have been checking whether the gate was open or closed.' (Karogs)
specific repeated actions	(23) *Dienā pārguruši, vakaros Antverpenē mēs vairs nebijām diezin cik čakli **staigātāji**.* 'Having tired during the day, in the evenings in Antwerp we were no longer very diligent **walkers**.' (Karogs)
being capable of an action	(24) [*Slimnīcas*] *Palātā sākās rosība. **Staigātāji** cēlās mazgāties, daži uztina smēķus.* 'The [hospital] ward came alive. **Those who could walk** were getting up to wash, some rolled themselves a cigarette.' (Karogs)
prolonged action, state or situation	(25) *No tāles nākošs, aizejošs pret tāli, šis mūžam meklējošais **staigātājs**.* 'Coming from afar, going to afar, this eternally searching **walker**.' (LitMāksla)

habitual, charac-teristic actions	(26) *Nieki, viņi ilgi vēl gozēsies vecumdienās, abi sārtvaidži, lieli* **staigātāji**, *vasarās klīst pa mežiem un pļavām.* 'Nonsense, they will enjoy their old age for a long time to come, both rosy-cheeked, eager **walkers**, wandering through forests and meadows in the summer.' (Karogs)
possible, hypo-thetical, gener-alised action	(27) *Vēss kalnu vējiņš tīkami spirdzina* **staigātāju** *pēc karstās dienas lejā, kur vasarā caurmēra temperātūra ir ap 25 grādi.* 'A [random] **stroller** is pleasantly refreshed by a cool mountain breeze after a hot day down below, where the average temperature in summer is around 25 degrees.' (Karogs)

Although this may seem too fine-grained an approach, we believe that the (sometimes rather subtle) differences between different feature values and their combinations are relevant to how language speakers conceptualise the contents of utterances containing *-tāj-* derivatives.

5. Discussion

In established lexicalised Latvian *-tāj-* derivatives (DT1), the semantic features described in Section 4 are, generally, part of 'dictionary' out-of-context meaning, while in productively formed novel derivatives or previously circulating derivatives invoked as novel for the purposes of specific contexts (DT2), they only become visible in contextual use (e.g., cf. examples in (14) and (15)). What implications does this have with regard to the lexicon, on the one hand, and the system of derivational morphology, on the other hand?

It would seem that the semantic contents of DT1 would have to be stored in the lexicon, while the semantics of DT2 would have to be computed online, both in speech production and perception. We have provided a possible broad model of how this is done in Figure 1. Furthermore, the existence of a DT1 formed from a particular source verb probably does not prevent a DT2 from being productively derived from the same source verb.

One of the most promising contemporary theories of derivational semantics is Lieber's (e.g., 2004; 2011) system of lexical semantic representation. In what follows, we will therefore tentatively discuss the possible ways in which the semantics of Latvian *-tāj-* derivatives, including contextual semantic features, might be represented within that framework.

According to Lieber's framework of lexical semantic analysis, the semantics of all complex words is structured similarly and consists of a semantic/grammatical skeleton containing all information relevant to syntax

along with a semantic body. I.e., in this case, the semantics of both DT1 and DT2 would have to consist of a semantic/grammatical skeleton and a semantic body, the main difference being that for DT1 the two semantic components would be stored in the lexicon and for DT2 they would be assembled in real time through integration of the semantic skeleton of the suffix *-tāj-* with the source verb to form a single referential unit.

The features that are syntactically active and are thus part of semantic/grammatical skeletons are assumed to vary cross-linguistically. E.g., L i e b e r (2011, 80) suggests that the semantic/grammatical skeleton of the English agentive suffix *-er* is characterised by two features: [+material, dynamic]. The presence of the feature [material], in general, defines correspondence to the syntactic category of noun, the positive value signalling the presence of materiality and the negative value denoting its absence, thus defining abstract nouns.

While investigating the actual set of semantic features constituting the semantic/grammatical skeleton of the suffix *-tāj-* in Latvian within L i e b e r 's framework of lexical semantic analysis is an area that certainly needs further research, for now we may note that the feature [material] in Latvian *-tāj-*nouns can have both a positive and a negative value (e.g., (7), (8c), (8d), (8e)), so that the semantic skeleton of the suffix *-tāj-* would have to be defined as [material, dynamic], where the feature [material] defines the conceptual category of THINGS/SUBSTANCES/ESSENCES without denoting the presence of materiality. If we assume that the referentiality of a derivative is established through coindexation, then the existence of two kinds of referents of *-tāj-*derivatives in Latvian – 'S' and 'Obj to V with' – could be explained by affix polysemy, i.e. by the suffix *-tāj-* having two sets of skeletal features: one, which places no restrictions on the semantics of its coindexed argument and results in 'S' derivatives, the so-called R argument (an argument, which establishes referentiality in nouns, see L i e b e r 2011) of the semantic skeleton of the suffix *-tāj-* being coindexed with the highest (external or S) argument of the source verb; and another which requires that the coindexed argument be 'something to V with'.

L i e b e r 's (2011) concept of the semantic body, in its extended version, contains two layers: a systematic layer of meaning that is relatively stable from speaker to speaker and consists "of those universal semantic features that are not syntactically active in the language in question" and the second layer of meaning, which "is purely encyclopedic, consisting of assorted bits

of information: colour, precise shape contours, precise manners of motion, special functions or origins, and so on" (L i e b e r 2011, 83). This part of the meaning is shaped by specialised user knowledge and may differ from one speaker to another. L i e b e r (2011, 85–87) further proposes a number of semantic features that, depending on whether they are or are not syntactically active in a particular language, form part of either the semantic/grammatical skeleton or the structured layer of the semantic body of complex words, e.g., <animate>, <human>, <female>, <age>, <artefact>, <function>. Some of these features stand in a hierarchical relationship to others, e.g., [material], <animate>, <human>, <female>, <age>.

Although, for the purposes of this study, our contextual semantic features have been formulated as descriptive classes not tied to any particular framework and not intended as universal semantic features, they can probably be adapted to fit in as part of the structured layer of the semantic body of *-tāj*-derivatives, where each DT2 derivative formed for specific naming needs in a concrete context is characterised by a certain combination of these feature values, e.g., the noun *klauvētājs* 'knocker' in examples (2a–b) and (3) would correspond to three different configurations, as in (28):

(28) a. *klauvētājs* (2a) [material, dynamic ([$_i$], [+dynamic ([$_i$], [ ])])]
        <+animate>, <+human>
        <agent>
        <−specialisation> (or <−function>)
        <+event>, <specific-single>
        {encyclopaedic elements: what is known to speaker about humans knocking on doors}

   b. *klauvētājs* (2b) [material, dynamic ([$_i$], [+dynamic ([$_i$], [ ])])]
        <−animate>, <+thing>, <+natural>
        <causer>
        <−specialisation> (or <−function>)
        <+event>, <specific-single>
        {encyclopaedic elements: what is known to speaker about tree branches knocking against windows}

   c. *klauvētājs* (3) [material, dynamic ([$_{something\ to\ V\ with\text{-}i}$], [+dynamic ([ ], [$_{with\text{-}i}$])])]
        <−animate>, <+artefact>
        <instrument>
        <+specialisation> (or <+function>)
        <−event>
        {encyclopaedic elements: what is known to speaker about door knockers}

Here, we have supplemented the feature <+/−animate> with additional hierarchically subordinate features such as <natural>, <artefact>, <human>, as suggested in L i e b e r 's work (e.g., 2004). The precise scope of the feature <specialisation> versus <function> (e.g., L i e b e r 2011), if intended as a (tentatively) universal semantic feature in future work, would need further research.

6. Conclusions

At the level of derivational morphology, the semantics of the Latvian suffix *-tāj-* is highly generic. The existence of two basic kinds of referents – 'S' and 'Obj to V with' – is probably best explained by affix polysemy.

The subtler semantic differences observed among *-tāj-* derivatives (e.g., see Section 2) occur either in established lexicalised derivatives, which are part of the lexicon, or when the derivational pattern is used productively to meet specific naming needs in concrete contexts.

The rich contextual semantics of productively formed *-tāj-* derivatives can be described in terms of contextual semantic features, where each specific contextual use of a derivative corresponds to a certain combination of contextual semantic features. I.e., one and the same source verb may be used to form derivatives with different sets of contextual semantic features, as far as the semantics of the source verb does not make some interpretations implausible. Contextual semantic features are part of the semantics of a concrete derivative, not part of the generic semantics of the suffix *-tāj-* (in terms of L i e b e r 's framework of lexical semantic analysis – part of the semantic body of a derivative).

In this study, we have identified five contextual semantic features: ANIMACY, SPECIALISATION, SEMANTIC ROLE, EVENT, and TYPE OF ACTION, where TYPE OF ACTION is in a hierarchical relation to EVENT. The actual list of features is probably larger and is arranged hierarchically, e.g., involving different subclasses of +ANIMACY (human, animal) and −ANIMACY (thing, substance, state of affairs, action) referents.

PRODUKTĪVU REGULĀRU ATVASINĀJUMU SEMANTIKA KONTEKSTUĀLĀ LIETOJUMĀ – LATVIEŠU VALODAS DARĪTĀJLIETVĀRDU PIEDĒKLIS *-tāj-*

Kopsavilkums

Vārddarināšanas produktīvums ir viens no svarīgākajiem līdzekļiem dažādu jaunu vai specifisku nozīmju izteikšanā. Produktīvu regulāru atvasinājumu semantika ir konteksta nosacīta un balstās uz formas, t.i., vārddarināšanas afiksa, un tā nozīmes vienību, taču kopumā tā ir vispārīga, jo tai piemīt t.s. minimālā vārddarināšanas nozīme. Valodas lietojumā šī minimālā nozīme bagātinās, lai būtu iespējams nosaukt aktuālus specifiskus jēdzienus, priekšmetus, parādības utt. Latviešu valodā ir bagātīga un produktīva vārddarināšanas sistēma, kuras pamatā ir sufiksācija, prefiksācija, arī atsevišķi cirkumfiksācijas un derivatīvo galotņu lietojuma gadījumi, kā arī salikteņu darināšana (sk., piemēram, K a l n a č a, L o k m a n e 2021). Deverbālu darītājlietvārdu piedēklis *-tāj-* ir viens no produktīvākajiem vārddarināšanas piedēkļiem mūsdienu latviešu valodā. Vārddarināšanas modeļa V$_{\text{Piedēklis}}$ + *-tāj-* N pamatnozīme parasti tiek definēta kā "attieksmē ar darbību izteiktas pazīmes nesējs" (S o i d a 2009). Šī nozīme ir pietiekami vispārīga un atvasinājumiem attieksmē pret motivētāju darbības vārdu paredz iespēju izteikt dažādas semantiskās lomas (piem., darītāju, izjutēju, instrumentu) un pat sintaktiskus argumentus (piem., subjektu vai objektu). Šai pētījumā tiek uzskatīts, ka *-tāj-* atvasinājumu semantiskā daudzveidība galvenokārt ir konteksta nosacīta, t.i., tieši konteksts piešķir dažādas konkrētas lietojuma nianses, lai gan pamatnozīme ir salīdzinoši vienkārša un vispārīga. Pētījumā tiek aplūkotas piecas kontekstuālās semantikas pazīmes, ar kuru palīdzību tiek aprakstīta *-tāj-* atvasinājumu lietojuma daudzveidība un kas papildina *-tāj-* minimālo vārddarināšanas nozīmi. Raksta teorētiskais pamats balstīts uz Rošeles L ī b e r e s (Rochelle L i e b e r 2004; 2017) iedibināto derivatīvi un semantiski kompleksu vārdu semantisko modeļu aprakstu. Tomēr *-tāj-* atvasinājumu nozīmes iztirzājums veidots kā konkrētu piemēru analīze, šai pētījuma stadijā nepostulējot īpašus sintaktiskus vai leksiskus modeļus. Visi aplūkotie *-tāj-* atvasinājumi izgūti no "Līdzsvarotā mūsdienu latviešu valodas tekstu korpusa LVK2018", to kontekstuālais lietojums pētīts "Latviešu nacionālas korpusu kolekcijas" dažādu korpusu tekstos.

ABBREVIATIONS

2, 3 – person
ACC – accusative
Cīņa – *"Cīņa" corpus*
CONJ – conjunction
COP – copula
DAT – dative
DT – derivative type
GEN – genitive
IMP – imperative
INF – infinitive
INS – instrumental
Karogs – *"Karogs" corpus*
LatSenRom – *Corpus of Latvian Early Novels*
LitMāksla – *"Literatūra un Māksla" corpus*

LVK2018 – *Balanced Corpus of Modern Latvian 2018*
LVK2022 – *Balanced Corpus of Modern Latvian 2022*
NOM – nominative
Obj – object
PL – plural
PREP – preposition
PRS – present
PST – past
S – subject
SG – singular
Tīmeklis2020 – *CommonCrawl of Latvian 2020*
V – verb
Ziņas – *Articles from Latvian news portals*

SOURCES

Baklāne, Andra, Valdis Saulespurēns, Artis Ozols 2022, *"Karogs" corpus,* CLARIN-LV digital library at Institute of Mathematics and Computer Science, University of Latvia. Available at: http://hdl.handle.net/20.500.12574/83.

Baklāne, Andra, Valdis Saulespurēns, Artis Ozols 2022, *"Literatūra un Māksla" corpus*, CLARIN-LV digital library at Institute of Mathematics and Computer Science, University of Latvia. Available at: http://hdl.handle.net/20.500.12574/81.

Baklāne, Anda, Valdis Saulespurēns, Artis Ozols, Marlēna Krasovska 2021, *Corpus of Latvian Early Novels*, CLARIN-LV digital library at Institute of Mathematics and Computer Science, University of Latvia. Available at: http://hdl.handle.net/20.500.12574/78.

Cīņa. Corpus of the newspaper texts 1904–1991, 2024, National Library of Latvia. Available at: https://korpuss.lv/en/id/C%C4%AB%C5%86a.

Levāne-Petrova, Kristīne, Roberts Darģis 2018, *Balanced Corpus of Modern Latvian (LVK2018)*, CLARIN-LV digital library at Institute of Mathematics and Computer Science, University of Latvia. Available at: http://hdl.handle.net/20.500.12574/11y.

Levāne-Petrova, Kristīne, Roberts Darģis, Kristīne Pokratniece, Viesturs Jūlijs Lasmanis 2023, *Balanced Corpus of Modern Latvian (LVK2022)*, CLARIN-LV digital

library at Institute of Mathematics and Computer Science, University of Latvia. Available at: http://hdl.handle.net/20.500.12574/84.

CommonCrawl of Latvian 2020, Institute of Mathematics and Computer Science, University of Latvia. Available at: https://korpuss.lv/en/id/T%C4%ABmeklis2020.

Ziņas. Articles from Latvian news portals 2022, Institute of Mathematics and Computer Science, University of Latvia. Available at: https://korpuss.lv/en/id/Zi%C5%86as.

REFERENCES

Alexiadou, Artemis 2017, Nominal derivation, in Rochelle Lieber, Pavol Štekauer (eds.), *The Oxford Handbook of Derivational Morphology*, Oxford: Oxford University Press, 235–256, DOI: https://doi.org/10.1093/.

Alexiadou, Aretmis, Florian Schäfer 2006, Instrument subjects are agents or causers, in Donald Baumer, David Montero, Michael Scanlon (eds.), *Proceedings of the 25th West Coast Conference on Formal Linguistics*, Somerville, MA: Cascadilla Proceedings Project, 40–48.

Alexiadou, Artemis, Florian Schäfer 2010, On the syntax of episodic vs. dispositional -*er* nominals, in Artemis Alexiadou, Monika Rathert (eds.), *The Syntax of Nominalizations across Languages and Frameworks*, Berlin: Mouton, 9–38, DOI: https://doi.org/10.1515/9783110245875.

Apresjan, Jurij 1974, Regular polysemy, *Linguistics* 14(2), 5–32, DOI: https://doi.org/10.1515/ling.1974.12.142.5.

Asher, Nicholas 2011, *Lexical Meaning in Context*, Cambridge: Cambridge University Press, DOI: https://doi.org/10.1017/CBO9780511793936.

Aronoff, Mark, Mark Lindsay 2017, Productivity, blocking, and lexicalization, in Rochelle Lieber, Pavol Štekauer (eds.), *The Oxford Handbook of Derivational Morphology*, Oxford: Oxford University Press, 67–83, DOI: https://doi.org/10.1093/.

Baayen, Rolf Harald 2009, Corpus linguistics in morphology: morphological productivity, in Anke Lüdeling, Merja Kytö (eds.), *Corpus Linguistics. An International Handbook*, Berlin, New York: De Gruyter Mouton, 899–919.

Barðdal, Jóhanna 2008, *Productivity: Evidence from Case and Argument Structure in Germanic*, Amsterdam, Philadelphia: John Benjamins Publishing Company.

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

Bauer, Laurie 2005, Productivity: theories, in Pavol Štekauer, Rochelle Lieber (eds.), *Handbook of Word-Formation*, Dordrecht: Springer, 315–334.

Falkum, Ingrid Lossius, Augustin Vicente 2015, Polysemy: current perspectives and approaches, *Lingua* 157, 1–16, DOI: https://doi.org/10.1016/j.lingua.2015.02.002.

Kamp, Hans, Antje Rossdeutscher 1994, Remarks on lexical structure and DRS construction, *Theoretical Linguistics* 20, 97–164, DOI: https://doi.org/10.1515/thli.1994.20.2-3.97.

Kalnača, Andra, Ilze Lokmane 2021, *Latvian Grammar*, Rīga: University of Latvia Press, DOI: https://doi.org/10.22364/latgram.2021.

Kalnača, Andra, Tatjana Pakalne 2023, Latviešu valodas lietvārdu darināšanas piedēkļu daudznozīmība teorētiskā skatījumā [The polysemy of Latvian nominal suffixes from a theoretical perspective.], *Language: Meaning and Form* 14, 53–73, DOI: https://doi.org/10.22364/vnf.14.05.

Koptjevskaja-Tamm, Maria 1993, *Nominalizations*, London, New York: Routledge.

Lieber, Rochelle 2004, *Morphology and Lexical Semantics*, Cambridge: Cambridge University Press, DOI: https://doi.org/10.1017/CBO9780511486296.

Lieber, Rochelle 2011, A lexical semantic approach to compounding, in Rochelle Lieber, Pavol Štekauer (eds), *The Oxford Handbook of Compounding*, Oxford: Oxford University Press, 78–104, DOI: https://doi.org/10.1093/oxfordhb/9780199695720.001.0001.

Lieber, Rochelle 2012, Semantics of derivational morphology, in Claudia Maienborn, Klaus von Heusinger, Paul Portner (eds.), *Semantics. An International Handbook of Natural Language Meaning* 3, Berlin, Boston: De Gruyter Mouton, 2098–2119, DOI: https://doi.org/10.1515/9783110255072.fm.

Lieber, Rochelle 2017, Theoretical approaches to derivation, in Rochelle Lieber, Pavol Štekauer (eds.), *The Oxford Handbook of Derivational Morphology*, Oxford: Oxford University Press, 50–66, DOI: https://doi.org/10.1093/.

Nau, Nicole 2013, Latvian agent nouns: their meaning, grammar, and use, *Baltic Linguistics* 4, 79–131, DOI: https://doi.org/10.32798/bl.410.

Navickaitė-Klišauskienė, Agnė 2013, *Dabartinės latvių kalbos daiktavardžių darybos sistema (nomina agentis ir nomina actionis)*, Humanitarinių mokslų daktaro disertacija [*Noun formation system (nomina agentis and nomina actionis) in contemporary Latvian*. Doctoral dissertation], Vilniaus universitetas.

Rainer, Franz 2017, Polysemy in derivation, in Rochelle Lieber, Pavol Štekauer (eds.), *The Oxford Handbook of Derivational Morphology,* Oxford: Oxford University Press, 338–353, DOI: https://doi.org/10.1093/oxfordhb/9780199641642.001.0001.

Rappaport Hovav, Malka, Beth Levin 1992, *-er* Nominals: Implications for a theory of argument structure, in Tim Stowell, Eric Wehrli (eds.), *Syntax and Semantics* 26: *Syntax and the Lexicon*, New York: Academic Press, 127–153.

Roy, Isabelle, Elena Soare 2013, Event related nominalizations, in Gianina Iordăchioaia, Isabelle Roy, Kaori Takamine (eds.), *Categorization and Category Change*, Newcastle upon Tyne: Cambridge Scholars Publishing, 123–152.

Soida, Emīlija 2009, *Vārddarināšana* [Word Formation], Rīga: Latvijas Universitātes akadēmiskais apgāds.

Spencer, Andrew 2019, The nature of productivity (including word formation versus creative coining), in Mark Aronoff (ed.), *Oxford Research Encyclopedia of Linguistics*, Oxford: Oxford University Press, DOI: https://doi.org/10.1093/acrefore/9780199384655.013.587.

Štekauer, Pavol, Salvador Valera, Lívia Körtvélyessy (eds.) 2012, *Word-Formation in the World's Languages: A Typological Survey*, Cambridge: Cambridge University Press, DOI: https://doi.org/10.1017/CBO9780511895005.

Andra KALNAČA
Latvijas Universitāte
Visvalža iela 4a
LV-1050 Rīga
Latvia
[*andra.kalnaca@lu.lv*]

Tatjana PAKALNE
Latvijas Universitāte
Visvalža iela 4a
LV-1050 Rīga
Latvia
[*tatjana.pakalne@lu.lv*]