



# ‘Knowing How’ in Slovene: Treading the Other Path\*

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# ‘Зная, как’ в СЛОВЕНСКОМ ЯЗЫКЕ: ИДЯ ПО ИНОМУ ПУТИ

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## Abstract

For the linguistic expression of the concept of knowledge, the Slavic languages use verbs deriving from the Indo-European roots *\*ǵnō* and *\*ueǵd*. They differ in terms of the availability of both types of verbs in the contemporary standard languages and in terms of their semantic range. As will be shown in this paper, these differences are interesting not only from a language-specific lexicological point of view, but also in the context of the intersection of lexicon and grammar. Covering the domain of ‘knowing how,’ the *\*ǵnō*-based verb in Slovene (*znati*) has been extending into the domain of possibility and, on this basis, developing into a modal verb. While this development is not surprising from a typological point of view, it is remarkable from a Slavic perspective, since this particular grammaticalisation path towards possibility is otherwise unknown to Slavic. This peculiar feature of Slovene, which most probably relates to its long-lasting and intensive contact with German, is illustrated in the present paper by comparing Slovene to Russian on the basis of three main questions: 1) the semantic range of *vedeti / vedat’* and *znati / znat’*; 2) the lexicalisation of ‘know how,’ and 3) the relation between knowledge, ability, and possibility. The focus is on contemporary Slovene and Russian, leaving a detailed diachronic investigation and the further embedding into a larger Slavic and areal perspective for future analyses.

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## Keywords

knowledge, ability, modality, Slovene, Russian

## Резюме

Для выражения понятия знания славянские языки используют глаголы, производные от индоевропейских корней *\*ǵnō* и *\*ueǵd*, но различаются условиями употребления обоих типов этих глаголов в современной литературной норме и условиями их семантического ранжирования. Как показано в настоящей статье, эти различия интересны не только со точки зрения лингвоспецифичности лексики, но также в контексте пересечения лексики и грамматики. Обслуживая сферу значений 'зная, как', словенский глагол с основой *\*ǵnō* (*znati*) распространился и на семантическую сферу возможности и благодаря этому стал модальным глаголом. Хотя этот сдвиг и не удивителен с типологической точки зрения, он примечателен в общеславянской перспективе, поскольку этот особый путь грамматикализации в сторону семантики возможности в целом не известен прочим славянским языкам. Эта характерная черта словенского языка, которая, скорее всего, связана с длительными и интенсивными его контактами с немецким, проиллюстрирована в настоящей статье сравнением словенского языка с русским в трёх главных аспектах: 1) семантический диапазон глаголов *vedeti* / *ведать* и *znati* / *знать*, 2) лексикализация значения 'знать, как' и 3) взаимоотношения между понятиями знания, способности и возможности. Основное внимание уделено современным словенскому и русскому языкам, без подробных экскурсов в их историю, но с прицелом на дальнейшее исследование данного вопроса в широкой славянской и ареальной перспективе.

## Ключевые слова

знание, возможность, модальность, словенский язык, русский язык

## 1. Introduction

As concerns the expression of KNOWLEDGE,<sup>1</sup> the Germanic and Slavic languages exhibit verbs that derive from the Indo-European roots *\*ǵnō* and *\*ueǵd*. The contemporary standard languages differ, however, in two main regards: as concerns the lexical partitioning of KNOWLEDGE by these verbs and as concerns the semantic extension of the verbs based on *\*ǵnō*. This is illustrated in (1) and (1'):<sup>2</sup> Slovene displays *\*ǵnō*-based *poznati* and *znati* alongside *\*ueǵd*-based *vedeti*. German, too, has verbs of both roots (*kennen* and *können* < *\*ǵnō*, *wissen* < *\*ueǵd*), while Russian and English use *\*ǵnō*-based verbs only (*znat'* and *know*, respectively). That is, the two members of the Germanic family differ in that English has one verb only (*know*), whereas German displays three different verbs (*kennen*, *wissen*, *können*). A similar relation obtains between Slovene and Russian as representatives of Slavic:

<sup>1</sup> Uppercase letters indicate concepts.

<sup>2</sup> Eng = English, Ger = German, Ru = Russian, Slo = Slovene.

Slovene uses two different verbs ((*po*)*znati*, *vedeti*), as opposed to one verb (*znat'*) in Russian. Moreover, it does not seem possible to use ru. *znat'* in translating slo. *znam prisluhniti*, which points towards a difference in the semantic extension of *znat'* and *znati*.

- (1) a. Slo: Kdor me *pozna*, *ve*, da *znam* prisluhniti ljudem! [GIGAFIDA: Dnevnik 2000]  
 b. Ger: wer mich kennt, weiss, dass ich den Menschen zuhören kann!  
 (1') a. Ru: Te, kto menja *znaet*, *znajut*, čto ja xorošo *umeju* prislušivat'sja k ljudjam!  
 b. Eng: [*lit.*] Who *knows* me *knows* that I *know* how to listen to the people!

Remarkably, then, the differences in the expression KNOWLEDGE by means of \**ġnō* and \**ueid* seem to be more pronounced within than across the Slavic and German families.

Against this background, Slovene turns out to be quite particular among Slavic in two main respects: First, it lexicalises KNOWLEDGE by means of verbs deriving from both roots, with the \**ġnō*-based verb having entered the domains of 'knowing how' and ability, see (1). Second, and even more particular, this semantic expansion constitutes a recent starting point for the grammaticalisation of possibility—a path that is not observed for the other Slavic languages. This usage of *znati* as expressing epistemic possibility is illustrated in (2):

- (2) Do polovice meseca bo sicer retrogradni Merkur delal težave v komunikaciji, tako da *zna priti* do kakšnih nerodnih situacij.  
 'Until the middle of the month Mercury will cause communication troubles, such that uncomfortable situations *may arise*.'  
 (<http://slowwwenia.ena.com/Novice/Horoskop/Mesecni-horoskop-za-december2011.html>, 23.1.2012)

The link between 'knowing how,' ability and modality has been stated previously (e.g., [KIEFER 1997]), as has the status of 'know' as one possible lexical source of possibility (e.g., [BYBEE ET AL. 1994; AUWERA, PLUNIAN 1998; HANSEN 2001; NARROG 2012]). This has been done mainly retrospectively, i.e., from the perspective of modality. The present paper will shift the focus towards the concept of KNOWLEDGE as the starting point of this development. This allows for stating the links mentioned above more precisely in that a language-independent point of reference is provided. It thus also becomes possible to show the closeness of Slovene to German and its differences from Russian, which is taken here as the exemplary representative<sup>3</sup> of Slavic.

The paper is structured as follows: Section 2 introduces three sub-domains of KNOWLEDGE and their verbal lexicalisation in Germanic and Slavic. The

<sup>3</sup> This is, of course, a broad oversimplification, but suffices for the purposes of the present paper.

intra-Slavic differences concerning these lexicalisation patterns of KNOWLEDGE in terms of *\*ĝnō*- and *\*ueǵd*-based verbs are illustrated in section 3 on the examples of Slovene and Russian. Section 4 focuses on 'knowing how' and its relation to ABILITY on the one hand, and the differences between Slovene and Russian in the lexicalisation of ABILITY by their *\*ĝnō*-based verbs on the other. On this basis, Slovene *znati* is shown to constitute an emerging modal verb in section 5. In this way, the linguistic expression of KNOWLEDGE becomes relevant from a lexical-typological and areal perspective, as will be concluded in section 6.

## 2. KNOWLEDGE

In the philosophical tradition (e.g., [RYLE 1945; VENDLER 1957; STANLEY 2011]), three main domains of KNOWLEDGE are commonly differentiated: factual knowledge ('knowing that'), knowledge concerning how to do something ('knowing how') and acquaintance with something or somebody ('knowing sb / sth'). APRESJAN [1995] refers to these domains as *propozicional'noe znanie* 'propositional knowledge,' *znanie-umenie* 'knowledge-ability' and *znanie-znakomstvo* 'knowledge-acquaintance' and thereby captures the different targets or types of content of knowledge: propositions, actions and objects, cf. table 1. In order to abstract away, as far as possible, from any language-specific connotations, the three domains will be referred to as KNOW-1, KNOW-2 and KNOW-3 in the remainder of this paper.

Table 1. The concept of KNOWLEDGE

KNOWLEDGE	subdomains	target	shortcut
	'knowing that' / propositional knowledge	proposition	KNOW-1
	'knowing how' / knowledge-ability	action	KNOW-2
	'know sb / sth' / knowledge-acquaintance	object	KNOW-3

In his survey of synonyms for selected basic concepts in the main Indo-European languages, BUCK [1949: 1208] notes in the entry for 'know' that "know as a fact" (that is, KNOW-1) and "be acquainted with" (that is, KNOW-3) are both covered by *know* in contemporary English, while in other Indo-European languages both domains "were originally expressed by different words and still are." These different words typically derive from the roots *\*ĝnō* and *\*ueǵd*, which originally described two kinds of knowledge (e.g., [GRKOVIĆ-MEJDŽOR 2007: 315]<sup>4</sup>): perceptive knowledge for which the subject is a passive

<sup>4</sup> Stating that "[r]ani indoevropski, kao jezik aktivne tipologije, ovu razliku markirao je leksički" 'early Indo-European, as a language of the active typology, marked this difference on a lexical basis,' GRKOVIĆ-MEJDŽOR [2007: 315] regards the lexical differentiation of both types of knowledge as a characteristic feature of early Indo-European, being in line with its 'active' character (see [KLIMOV 1972] for more details)

recipient (*\*ueīd*) and inferential knowledge, in which the subject is actively involved (*\*ġnō*). In some languages, the sense of ‘know how to do’ “became dominant” [BUCK 1949: 1208] for *\*ġnō*. That is, words of this root developed to cover KNOW-2 and thereby started being “used as ‘know how’ and so virtually ‘can,’ like Fr. *il sait lire* ‘he (knows how to) can read’” [IBID.: 647]. In addition, one further kind of development can be observed, “displacing the older meaning ‘know’ and the old words for ‘can’” [IBID.: 647]. One case in point is English, where large parts of KNOW-2, in particular the possibility readings (see section 5), are expressed by the modal *can*, leaving *know* as a lexical verb.

The differences in English and German concerning the linguistic partitioning of KNOWLEDGE by means of the verbs under discussion are illustrated in table 2. English uses *know* for all three subdomains, distinguishing the content of knowledge—proposition, action, object—on syntactic grounds (complement clause, infinitive, direct object). Within KNOW-2, a particular part has been taken over by *can* (< *cunnan*), a cognate of *know* (e.g., [WATKINS 1985: 32]), such that *can* and *know* now divide up this domain. German has verbs derived from *\*ġnō* for KNOW-2 (*können*) and KNOW-3 (*kennen*), whereas *\*ueīd*-based *wissen* is used for KNOW-1. That is, while in English *can* split off and developed into a fully fledged modal, in German *kennen* split off as a lexical verb, leaving *können* with modal functions. Differently from English, contemporary German marks the partition of KNOWLEDGE also on a lexical basis.

Table 2. Germanic

	English	German
KNOW-1	<i>*ġnō</i> > <i>know</i>	<i>*ueīd</i> > <i>wissen</i>
KNOW-2	<i>*ġnō</i> > <i>know, can</i>	<i>*ġnō</i> > <i>können</i>
KNOW-3	<i>*ġnō</i> > <i>know</i>	<i>*ġnō</i> > <i>kennen</i>

The difference between English and German concerning the expression of KNOW-1 and KNOW-3 by verbs derived from one and the same root (English) or from two different roots (German) can be observed within the Slavic family as well. The contemporary Slavic languages divide into two groups [POPOVIĆ 1960: 3; GRKOVIĆ-MEJDŽOR 2007: 317–318], as can be seen in table 3. The languages of the former group, which includes East Slavic (except for Ukrainian), Eastern BCS, Bulgarian and Macedonian, employ *\*ġnō* for KNOW-1 and KNOW-3, whereas the latter—including Slovene, Western BCS, West Slavic and Ukrainian—have *\*ġnō* for KNOW-3 and *\*ueīd* for KNOW-1. As concerns

on active languages). The fact that in Russian, for instance, *\*ueīd* but not *\*ġnō* appears in the context of impersonal predicatives such as *mne izvestno* ‘I know,’ ‘I am aware of’ (lit. ‘it is known to me’) might be taken as attesting to this quality.



the lexical expression of KNOW-1 and KNOW-3, Russian thus ties in with the 'English type' and Slovene with the 'German type' (see also (1) and (1') above).

Table 3. Slavic

	East Slavic, Eastern BCS, Bulg., Mac.	Slovene, Western BCS, West Slavic
KNOW-1	* <i>ĝnō</i> > <i>znat'</i>	* <i>ueīd</i> > <i>vedeti</i>
KNOW-2	?	?
KNOW-3	* <i>ĝnō</i> > <i>znat'</i>	* <i>ĝnō</i> > <i>(po)znati</i>

As the overview in BUCK [1949: 1207] shows, the lexical differentiation of KNOWLEDGE by means of \**ĝnō* and \**ueīd* is characteristic of older stages of Germanic and Slavic (on Slavic see also [GRKOVIĆ-MEJDŽOR 2007: 317]). This distinction has been lost in some of the contemporary languages, such as English or Russian,<sup>5</sup> while others have retained it, such as German, Danish and Swedish, and the Slavic languages given in table 3. The geographical location of the languages of the latter type suggests a division of European languages into a periphery, where the distinction has been given up, and a centre, where it is still kept (see also the overview in [KEY, COMRIE 2015]),<sup>6</sup> albeit with slightly diverging semantic characteristics for the verbs of both roots.

Strikingly, neither POPOVIĆ [1960] nor GRKOVIĆ-MEJDŽOR [2007] considers KNOW-2 in their intra-Slavic differentiation. Most probably, this relates to the fact that in Slavic, KNOW-2 is expressed by verbs deriving from the root \**mog* 'power, be strong' (e.g., Russian *moč'*, BCS *moći*, Czech *moci*). At first sight, therefore, the linguistic expression of KNOW-2 does not seem to be relevant for the lexical distinctions within KNOWLEDGE in Slavic.

### 3. KNOWLEDGE in Slovene and Russian

This section offers a closer look at the semantic characteristics and preferred contexts of the usage of verbs derived from \**ĝnō* and \**ueīd* in Slovene and Russian as representatives of the two groups introduced in section 2.

<sup>5</sup> The question as to when, where and under what conditions \**ueīd* started to fall into desuetude in these languages remains to be investigated, ideally taking into account factors such as genre, language contact (written and oral) and prescriptive tradition.

<sup>6</sup> This is not congruent with HASPELMATH's [1998] distinction of Standard Average European into nucleus, core and periphery, which he bases on morpho-syntactic features dating—with all due caution—to the "time of the great migrations at the transition between antiquity and the Middle Ages" [IBID.: 285]. The lexical partition under discussion here seems to be younger and subject to processes which are still in need of closer inspection. As concerns the Slavic languages, extra-linguistic factors such as translations of prestigious texts (most importantly, the Bible) or the tradition of (mainly German and, secondarily, Czech) grammar writing might have played a role, in particular for the retention of \**ueīd* alongside \**ĝnō*.

### 3.1 Lexicological descriptions

According to [MAS], Russian *vedat'* expresses the possession of information about something or somebody; for this interpretation, *znat'* is given as a synonym expression. In literary styles, *vedat'* is described as expressing sentience. However, it is indicated as being outdated in both interpretations and as being restricted to phraseological expressions such as *vedat' ne vedaet* 's/he does not have the slightest idea' (see also [PTENCOVA 2008: 267] on the constantly decreasing usage of *vedat'* as evinced in the Russian National Corpus<sup>7</sup>).

For *znat'*, [MAS] distinguishes the four main interpretations listed in (3):

- (3) a. to possess information about sb / sth
- b. to have skills in a particular domain (e.g., *znat' matematiku* 'know mathematics')
- c. to know sb / sth (*ja znal korotko ètogo starika* 'I have known this old man closely'); to experience sth
- d. to understand, recognise, comprehend

Since with interpretations (3a) and (3d), *znat'* covers domains that are also mentioned for the outdated *vedat'*, the contemporary distribution seems to result from the semantic expansion of *znat'* at the expense of *vedat'* (see also [APRESJAN 1995: 46]; PTENCOVA [2008: 274, 277] dates the beginning of the expansion of *znat'* into the semantic domain of *vedat'* to the 15th c.). In none of the interpretations listed is *znat'* directed towards an action, which suggests that it does not cover KNOW-2. This is also reflected in APRESJAN's [2004: 398–399] description, which gives the factive interpretation (i.e., KNOW-1) as the main meaning for *znat'*, alongside 'imet' svedenija o čem-libo' 'have information about something' (i.e., KNOW-3). Two further interpretations, 'obladat' umenijami v opredelennoj oblasti (*znat' francuzskij* [. . .]) 'possess capabilities in a particular domain (*know French*),' which is close to KNOW-2, and 'byt' znakomym s kem-libo' 'be acquainted with somebody' [IBID.: 399], which can be regarded as an instance of KNOW-3, are mentioned as additional, but peripheral, interpretations.<sup>8</sup>

For Slovene *vedeti*, [SSKJ] lists the interpretations given in (4). All of them testify to the passive character of the kind of KNOWLEDGE lexicalised by

<sup>7</sup> Apart from "za poslednee stoletie" 'over the last century,' PTENCOVA [2008: 267] does not give any details as to the time span covered by her analysis. She neither dwells upon the method of query, but simply notes that "*vedat'* vstrečatsja v 20 raz reže čem *znat'*" '*vedat'* is met 20 times less frequently than *znat'*" [IBID.]. Nonetheless, this can be taken as indicating the general trend.

<sup>8</sup> Citing example (i), one of the reviewers points out an additional usage of *znat'*, which does not seem to be related to KNOWLEDGE but instead carries the aspectual meaning of stativity:

(i) Ètot gorod  *znal* i vremena procvetanija, i èpoxi upadka.

'This city *has known* times of prosperity as well as epochs of decline.'

This usage is not covered by the present paper. However, because it exhibits an inanimate subject, it might possibly be analysed as an expansion of KNOW-3.

\**veid* (cf. section 2). The main domain of *vedeti* appears to be KNOW-1, while KNOW-2 is covered only marginally. It is described as being outdated in usage (4d), i.e., in the sense of KNOW-3.

- (4) a. to be aware of sth / have sth in mind on the basis of perception or learning
- b. to be aware of / have in mind basic properties of sth on the basis of personal experience
- c. to be in a position to carry out some action because of personal experience
- d. outdated 'znati': *vedeti tuje jezike* 'to know foreign languages'

For *znati*, [SSKJ] gives the interpretations in (5):

- (5) a. to memorise what has been learnt and be able to convey and apply it
- b. to be able to successfully execute and perform a particular capability
- c. vernacular: possibly to be the case: *tam bi znala biti zaseda* 'there might be an ambush'
- d. outdated 'vedeti': *za njegov dolg so znali vsi* 'everyone knew about his debts'

Being directed towards an action, interpretations (5a) and (5b) cover the domain of KNOW-2. Interpretation (5c) is not captured by the subdomains of KNOWLEDGE established so far; it will be dealt with in sections 4 and 5 (see (2) for a first illustration). There is one usage for which *znati* is listed as being outdated, namely, as a synonym for a particular use of *vedeti*, (5d). Taken together, these descriptions suggest a division of labour in Slovene. Contrary to Russian, Slovene \**gnō* (*znati*) has not ousted \**veid* (*vedeti*). Instead, both still retain the original semantics of active vs. passive knowledge and each cover particular domains of KNOWLEDGE.

The differences between Slovene *znati* and *vedeti* on the one hand, and between Slovene and Russian on the other can be seen in (6), a parallel passage retrieved from the PARASOL corpus:

- (6) a. Slo: (i) *Vem*, da (ii) ničesar ne *znam* dobro. (iii) *Vem*, da nisem lepa. . .  
[PARASOL]  
'I *know* that I don't *know* [= don't know how to do] anything well. I *know* that I am not beautiful. . .'
- b. Ru: (i) *Znaju*, što (iia) ja glupa. (iib) *Znaju*, što ničego kak sleduet (iic) ne *umeju*. (iii) *Znaju*, što ja nekrasivaja. . . [PARASOL]  
'I *know* that I am stupid. I *know* that I *am* not *able* to do anything as it should be done. I *know* that I am not beautiful.'

In Slovene, (6a), *vem* has a proposition as target (KNOW-1), *znam* a nominalised action (KNOW-2)—as becomes obvious by the Russian translation. In Russian, (6b), *znaju* is used as an equivalent for *vem* (KNOW-1), while *znam* and its target



*ničesar* ‘nothing’ are rendered by (iia)-(iic): (iia) *ja glupa* ‘I am stupid’ serves as a general paraphrase, while the actional complement implicit in *ničesar* is paraphrased by (iib) *znaju* and its propositional complement (iic) *ničego kak sleduet ne umeju* ‘I am not able to do anything the way it should be done.’ The actional content of KNOWLEDGE (KNOW-2) needs to be introduced by *umet’* ‘to be able,’ since this is not an option for *znat’*—contrary to Slovene *znati*. For the second instance of propositional KNOWLEDGE in (iii), Slovene and Russian again use *vedeti* and *znat’* respectively.

### 3.2 Usage

The differences between Russian and Slovene in the semantic coverage of the verbs under discussion surface more distinctly in parallel texts.<sup>9</sup> Examples (7)–(9) show different ways in which Slovene *vedeti* as expressing KNOW-1 may be rendered in Russian: except for a very few examples of *vedat’* (see (7)), this meaning is expressed by *znat’* (see (8)), or predicative constructions, such as *izvestno* ‘it is known’ (with *vest’* < \**uejd’*; see also footnote 4) (see (9)).

- (7) a. Slo: Kaznovati nekoga, ki ni *vedel*, *kaj* dela, je navadno barbarstvo. [PARASOL]  
 b. Ru: Nakazyvat’ kogo-to, kto ne *vedal*, *čto* tvoril, ne čto inoe, kak varvarstvo. [PARASOL]  
 ‘Punishing somebody who did not *know*, *what* he was doing, is barbarism.’
- (8) a. Slo: kajti on dobro *ve*, *da* [PARASOL]  
 b. Ru: ibo prekrasno *znaet*, *što* [PARASOL]  
 ‘since he *knows* very well *that*’
- (9) a. Slo: *nihče ne ve*, kakšna misel je tedaj obšla Ivana [PARASOL]  
 b. Ru: *nikomu ne izvestno*, kakaja tut mysl’ ovladela Ivanom [PARASOL]  
 ‘*nobody knew*, what thought has crept over Ivan’

KNOW-3 is expressed by means of *(po)znati* and *znat’*, respectively, see (10):

- (10) a. Slo: Seveda vas *poznam!* [PARASOL]  
 b. Ru: Razumeetsja, ja *znaju* vas. [PARASOL]  
 ‘Of course, I *know* you.’

Example (11) oscillates between KNOW-3, which is suggested by the nominal object, and KNOW-2, which is suggested by the semantics of this object, which includes an action:<sup>10</sup>

<sup>9</sup> It is important to note that the comparison in this section is not to be taken as a detailed corpus study nor does it aim at providing a detailed survey of the means of expressing ability in Russian (see, e.g., [BELJAEVA 1990; BELYAEVA-STANDEN 2002; HANSEN 2001] for concise overviews and analyses).

<sup>10</sup> The further context of this example does not contribute to solving this equivocality, see (ii):

- (11) a. Slo: *Znam še tajsko masažo*. [PARASOL]  
 b. Ru: Ja ešče tajskij masaž *znaju*. [PARASOL]  
 'I *know* the Thai massage.'

As concerns KNOW-2, *znati* is common in Slovene, while in Russian, *znat'* is listed (see 3b) as expressing this sense of KNOWLEDGE only in examples such as (12):

- (12) a. Slo: Poleg domačega *znam* pet jezikov. [PARASOL]  
 b. Ru: Ja *znaju* pjat' jazykov, krome rodnogo. [PARASOL]  
 'I *know* five languages besides my native one.'

Actually, however, in cases like (12), knowledge seems to be targeted at an object rather than at an action, whereby such uses of *znat'* seem much closer to KNOW-3, i.e., know something / somebody. Obviously, we are dealing with the same kind of oscillation as observed for (11), which derives from the divergence of syntax (nominal object) and semantics (nominal object suggesting an action).

Apart from this restricted usage of *znat'*, which is also the only example APRESJAN [2004: 399] lists for *znanie-umenie*, Russian exhibits various equivalents to Slovene *znati* in this domain. These equivalents encompass, most prominently, implicit coding, (13), *umet'* 'be able,' (14), and *moč'* 'be able, can,' (15).

- (13) a. Slo: Ah, kako *zna streljati*! [PARASOL]  
 b. Ru: ax, kak on *streljaet* [PARASOL]  
 'Ah, how he shoots!'
- (14) a. Slo: Zakaj hodiš na bazen, če ne *znaš plavat*? [PARASOL]  
 b. Ru: Začem ty xodiš' v bassejn, esli *plavat'* ne *umeeš'*? [PARASOL]  
 'Why do you go to the pool if you cannot swim?'
- (15) a. Slo: Tega ti ne *znam povedati* drugače [PARASOL]  
 b. Ru: Ja ne *mogu* tebe *ob"jasnit'* ètogo. [PARASOL]  
 'I *cannot explain* this in a different way.'

Based on (7)–(15), the semantic scope of *znati* / *znat'* and *vedeti* / *vedat'* can be summarised as in table 4: whereas in Russian, *znati* has ousted *vedat'* for KNOW-1, both verbs have specialised for KNOW-1 and KNOW-3, respectively, in Slovene. In addition, Slovene *znati* covers KNOW-2, an option not available for Russian *znat'*.

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(ii) "Znam še tajsko masažo," je rekla . "Kakšna pa je ta?" je vprašal [. . .] "To se dela s stopali. Ulegel se boš na tla, jaz pa bom preprosto hodila po tebi. . ." [PARASOL]  
 "I also know the Thai massage," she said. "What [kind of massage] is this," he asked.  
 "It is done with your feet. You lay down on the floor, and I will simply walk on you."

Table 4. KNOW-2 in Russian and Slovene

		KNOW-1	KNOW-2	KNOW-3
Russian	<i>vedat'</i>	(+)	—	(+)
	<i>znat'</i>	+	(+)	+
Slovene	<i>vedeti</i>	+	(+)	—
	<i>znati</i>	(+)	+	+

The data presented in this section show that Slovene is among the languages for which the sense of ‘know how to do,’ i.e., KNOW-2, became dominant—or at least possible—for \**ġnō* (cf. section 2). Being directed towards an action, KNOW-2 is closely related to ability, as will be discussed in more detail in section 4.

#### 4. KNOW-2 and ABILITY

ABILITY is not a uniform concept but comprises several subdomains. MAIER [2014] differentiates dispositions, powers and abilities. Dispositions are ascribed to subjects as particular properties (e.g., *is-fragile*). Powers, such as *understand a language*, in addition require a subject possessing cognitive capacities. Abilities, such as *speak a language*, require a cognitive subject, too; moreover, they are actional, i.e., directed towards an activity. This type of singular belongs to what MELE [2003: 447] calls ‘practical’ abilities. They come in three variants: simple, general and promise-level [IBID.: 447]. Simple and general abilities differ according to whether they depend upon an enabling situation (specific) or not (general), as MELE [2003: 447] illustrates in the following example:

Although I have not golfed for years, I am able to golf. I am not able to golf just now, however. I am in my office now, and it is too small to house a golf course. The ability to golf that I claimed that I have may be termed a *general* practical ability. It is the kind of ability to A that we attribute to agents even though we know that they have no opportunity to A at the time of attribution, and we have no specific occasion for their A-ing in mind. The ability to golf that I denied I have is a *specific* practical ability, an ability an agent has at a time to A then or to A on some specified later occasion.

As to the third type, an ability is a promise-level ability of an agent if it is “a sufficiently reliable ability to ground, in an [...] agent who knows her own abilities, complete confidence that, barring unexpected substantial obstacles, if she sincerely promises to A, she will A” [MELE 2003: 464]. That is, promise-level abilities can be understood as an agent’s assurance and belief in her capacities to carry out a particular action. They concern the estimation as to the possible success of her action and are thereby close to an assessment of the likelihood of the occurrence of a situation.

On the basis of these subtypes of abilities, the uses of Slovene *znati* and their Russian equivalents introduced in section 3.2 can be classified more coherently. For the expression of dispositions, i.e., property-like 'abilities,' medium constructions are preferred in both languages, see (16). This comes as no surprise given that medium constructions resemble statives, ascribing a state to an individual (e.g., [SPENCER, ZARETSKAYA 2003]).

- (16) a. Slo: Pod njegovim pogeldom *se je težko odločati*. [PARASOL]  
 b. Ru: Pod ego vzgljadam tjaželo *dumaetsja!* [PARASOL]  
 'Being exposed to his gaze it is difficult to decide/think.'

As illustrated by examples (17)–(30), Slovene *znati* is an option for the expression of powers describing a capability of an agent, for general abilities which are independent of an enabling situation, and for specific abilities requiring a particular occasion to be carried out. Russian, however, uses various different means for the expression of these abilities.

Typically, powers are expressed indirectly in Russian, as in (17). Such instances of what KRATZER [2002] calls 'inherent modality' often go by the label of 'potential reading' of the imperfective aspect (see [SONNENHAUSER 2008] for more details on this particular interpretation). In addition, *moč'* is an option, see (18). The rare occurrences found in the NKRJA of *znat'* expressing powers, such as (19), stem from older and rather literary texts, which suggests that this usage is not—or no longer—very typical for *znat'*.

- (17) Slo: *zna* dokaj dobro *govoriti* s tukajšnjimi ljudmi [PARASOL]  
 Ru: bez truda *razgovarivaet* s mestnymi [PARASOL]  
 'he *can speak* easily with the local people'  
 (18) Ru: čto *možet ponimat'* o žizni devočka v 14 let [. . .]? [NKRJA]  
 'What would a 14-year-old girl *be able to understand* about life?'  
 (19) Ru: — O, bože! — Tol'ko i *znaeš' pridirat'sja*. . . [NKRJA]  
 '—Oh, Lord! —All you *can* do is *carp*. . .'

The most common expression of general abilities is *umet'*, as in (20) and (21), with *moč'* being possible as well, see (22). Rarely, *znat'* is attested, see (23). But again, such examples appear to be restricted to older and literary texts.

- (20) a. Slo: Bog [. . .] pa *zna* tudi kaznovati. [PARASOL]  
 b. Ru: No Gospod' *umeet* karat'! [PARASOL]  
 'God *knows how* to punish.'  
 (21) Ru: Moja mama [. . .] tože *umela šit'* (èto *umeli delat'* vse v sem'e ee roditelej [. . .]), no ne vseгда u nee bylo dlja ètogo vremja. [NKRJA]  
 'My mum *could sew*, too (everybody in her parents' family *could do this*), but she did not always have enough time.'

- (22) Ru: Proizvol'nost' — èto kogda rebenok *možet upravljat'* svoim povedeniem [NKRJA]  
 'Voluntariness—this is when the child *is able to control* its behaviour'
- (23) Ru: Drevnie *znali čitat'* èti načertanija. [NKRJA]  
 'the ancients *could read* [*knew how to read*] these inscriptions'

Specific abilities, which require an enabling situation, can only be expressed by *moč'* in Russian. In (24), the enabling situation is very general ('in all possible circumstances'), in (25) it is given by 'reasons of illness':

- (24) a. Slo: Pilot, ki se ne *zna* v vsakih okoliščinah *orientirati*, ali kak pojav traja pet sekund ali deset, ne bo nikoli kaj dosti vreden. [PARASOL]  
 b. Ru: Pilot, kotoryj ne *možet*, nezavisimo ot obstojatel'stv, *sorientirovat'sja*, skol'ko prošlo sekund — pjat' ili desjat', nikogda ne stanet masterom svoego dela. [PARASOL]  
 'A pilot who is not able to orient himself in all possible circumstances whether some phenomenon lasts for five seconds or ten, is for the birds.'
- (25) Ru: po bolezni *ne možet učastvovat'* v sudebnom razbiratel'stve [NKRJA]  
 'for reasons of illness, he *cannot attend* the court hearing'

That the means sketched in (20)–(25) cannot be used interchangeably in Russian but that each have their particular preferences for certain subdomains of ABILITY becomes evident by (26) and (27). These examples illustrate the difference between inherent and overtly expressed ability on the one hand, and between *umet'* and *moč'* on the other. In both cases, particular communicative effects arise from the usage of *umet'* in contexts that, as a default, require a different means of expressing ability. The kind of ability to be expected for a non-intentional subject such as a kitchen machine is a disposition. However, the usage of *umet'* in (26) suggests an intentional subject, as pointed out, e.g., by HANSEN [2001: 182], who describes the semantics of *umet'* as 'a possibility that is assigned to an animate being because of know-how or practice.' It is this mismatch that underlies the interpretation of the kitchen machine having human-like powers in (26)—an effect that can be exploited in advertising, selling this machine as an active, independently operating helper in kitchen work.

- (26) Ru: Novyj kuxonnyj kombajn Philips Essence pojmet vse s pervogo slova. On *umeet* rezat' lomtikami, [. . .] vyžimat' sok. . . [NKRJA]  
 'The most recent kitchen machine will understand anything straightaway. It is *able to* cut slices, to press out juice'



In (27), *umet'* is used with a cognitive subject for which *dumat'* is an inherent characteristic. It is nothing that can willingly be brought about by carrying out a particular action. In this case, it is a mismatch in actionality that triggers pragmatic enrichment yielding particular communicative effects (irony, for instance).

- (27) Ru: Okazyvaetsja, naš režisser *umeet dumat'*! [NKRJA]  
 'Obviously, our stage director *is able to think*!'

The third type of ability, promise-level ability, can be expressed in Russian only by *moč'*, as in (28):

- (28) Ru: Ja ne znaju, gde okažus' čerez 20 minut, [. . .]. *Mogu byt' zanjata* 8 časov podriad. . . [NKRJA]  
 'I don't know where I will be in 20 minutes. I *may be* continuously *busy* for 8 hours.'

Remarkably, Slovene *znati* reaches also into the domain of promise-level ability. This can be seen in (29), where *znam biti razumska* may be interpreted as expressing self-assessment:

- (29) Slo: A to ni res, saj *znam biti razumska*, [. . .] [GIGAFIDA]  
 'But this is not true, I *may indeed be sensible*.' [lit. 'I know to be sensible']

This semantic extension of *znati* becomes even more evident in (30a). Since *pozabljivost* 'forgetfulness' is not an agentive, cognitive subject, *zna stati* may receive an epistemic interpretation only. In Russian, *moč'* is the only option to express this meaning, see (30b):

- (30) a. Slo: Tokrat jih *zna pozabljivost stati* 1.666.000 tolarjev. [FIDAPLUS]  
 'This time, their forgetfulness *may cost* them 1.666.000 Tolars.'  
 b. Ru: Durnoe slovo *možet obojtis'* vam očen' dorogo. [NKRJA]  
 'A bad word *may cost* you dearly.'

With uses such as (29) and (30), *znati* clearly reaches into the modal domain. The transition from ABILITY to MODALITY<sup>11</sup> will be sketched in section 5.

<sup>11</sup> 'The transition from ABILITY to MODALITY' refers to the expansion of *znati* from a lexical to a modal verb. BYBEE ET AL. [1994] show the diachronic path from ability to modality, which consists in the increasing grammaticalisation of lexical elements originally expressing various senses of 'capability.' KIEFER [1997: 252] offers a pragmatic account of the "genetic" relationship between ability and root modality." Due to this close relationship, ABILITY is sometimes subsumed under MODALITY (e.g., [AUWERA, PLUNIAN 1998]).

## 5. From ABILITY to MODALITY

The subtypes of ABILITY listed in section 4 can be characterised by a specific set of features each, as summarised in table 5. Dispositions are ascribed as properties to a subject which does not need to have cognitive capacities but may well be a simple ‘bearer’ of properties. This is different for powers, which can be predicated only of cognitive subjects. General and specific abilities have an additional actional component. Both are distinguished by the relevance of situational factors for the latter. With the factor of situation coming to the fore, specific abilities shade into what might be called ‘circumstantial’ ability. For promise-level abilities, the factors of cognitive subject and situation lose their relevance. What becomes relevant instead is the agent’s assessment concerning the likelihood of the successful execution of an action and the concomitant occurrence of a particular situation.

Table 5. ABILITY

Parameter	ABILITY
+subject	disposition
+subject, +cognitive	power
+subject, +cognitive, +actional	general ability
+subject, +cognitive, +actional, +situation	specific ability
[+subject, +cognitive, +actional], +situation	circumstantial ability / possibility
[±subject, ±cognitive, ±actional, ±situation], +assessment	promise-level ability / possibility

Based on these feature sets, the relation between ABILITY and MODALITY can be stated more explicitly, in particular, the points of transgression towards the different types of modality. First of all, it becomes clear why dispositions are not expressed by *znati*: they are not a mental phenomenon and hence outside the range of KNOWLEDGE in general, and of KNOW-2 in particular; actually, it may be questioned whether they belong to the domain of ABILITY at all. Pertaining to an agent’s inherent capacities, general abilities are closely related to dynamic modality. With the situational circumstances becoming more important, specific abilities shade into circumstantial possibility (see also [KIEFER 1997]). The more the factor ‘situation’ comes to the fore, the more all other factors are relegated to the background, as is indicated by the brackets in the table. Once the focus is on the enabling situation, circumstantial possibility shades into deontic possibility.

An example of the transition from ability to modality related to the factor of situation is given in (31). Even though *obraz* ‘face’ is not a cognitive agent, *znati* is used. Here, the enabling background is provided by situational factors—emotional circumstances in this particular case.

- (31) Slo: in prvič sem videl, kako *zna biti* njegov sicer otožni obraz tudi srdit [PARASOL]  
 'and for the first time I saw his sorrow turn into rage.'  
 [lit. 'how his otherwise wistful face *could be angry* as well]

For promise-level abilities, assessment comes to the fore and a split may occur between the subject as possessor of a particular capacity and an evaluator assessing the likelihood of this capacity being successfully implemented. By this feature of assessment, promise-level abilities bridge towards epistemic modality. Instead of relating an agent to her action, promise-level abilities pertain to the occurrence of a situation.

Along the transition from KNOWLEDGE to ABILITY and MODALITY, it is possible to map the differences between *znat'* and *znati*; see table 6:

Table 6. From KNOWLEDGE to MODALITY

conceptual domain \ linguistic expression	KNOWLEDGE	ABILITY		MODALITY		
	disposition	power	general ability	specific ability		
				circumstantial possibility	deontic possibility	epistemic possibility
Russian	medium	[ <i>znat'</i> ] implicit <i>moč'</i>	[ <i>znat'</i> ] <i>umet'</i> <i>moč'</i>	<i>moč'</i>	<i>moč'</i>	<i>moč'</i>
Slovene	medium	<i>znati</i>	<i>znati</i>	<i>znati</i>	( <i>znati</i> )	<i>znati</i>

The Russian equivalents to Slovene *znati* are restricted to—or at least strongly preferred for—one particular type of ability each: medium constructions for dispositions, implicit expression for powers and *umet'* for general abilities. Applying to all domains from powers to epistemic possibility, *moč'* is least specific or, to put it another way, most polysemous. This polysemy is visible in (32), where *ne možet paxnut'* is to be interpreted epistemically (note that the infant is the source of sensation, not the experience), while *ne možet govorit', begat' ili pisat'* expresses general abilities:

- (32) Ru: No on ne slyšal ničego. Kak ni staralsja. Verojatno, mladency ne paxnut, dupal on. Naverno, v ètom delo. V tom-to i delo, što mladenec, esli ego soderžat' v čistote, voobščè *ne možet paxnut'*, kak *ne možet govorit', begat' ili pisat'*. Èti veščì prihodjat tol'ko s vozrastom. [PARASOL]  
 'But he smelled nothing. For the life of him he couldn't. Apparently an infant has no odour, he thought, that must be it. An infant, assuming it is kept clean simply *doesn't smell* [lit: *it is not possible* for an infant to smell], any more than it *speaks, or walks, or writes* [lit: than it *is able to speak, walk or write*]. Such things come only with age.'

Because of this polysemy, *moč'* can be considered a prototypical modal verb (e.g., [HANSEN 2001]). The domain covered by *moč'* is congruent with Slovene *znati*, which covers the lexical meaning of KNOW-2 and various modal possibility meanings. It can thus indeed be considered a modal verb of contemporary Slovene.<sup>12</sup>

There is one modal domain that does not seem to be covered by *znati*, namely deontic possibility. Whether this is related to the data investigated in this paper or whether this is a systematic restriction, possibly resulting from the fact that *znati* as a *\*ĝnō*-based verb expresses 'active' knowledge (see section 2), needs to be investigated in more detail, also on a diachronic basis (see also [SONNENHAUSER 2014]).<sup>13</sup> In any case, this does not contradict the typologically observable development of participant external possibility towards deontic and/or epistemic possibility. As VAN DER AUWERA and PLUNGIAN [1998: 88–89] emphasise, participant external possibility may develop in both directions with no temporal ordering or implicational relation obtaining between them.

Given that in BYBEE ET AL.'s [1994] database, verbs meaning 'to know' appear as the "most commonly documented lexical source for ability" [IBID.: 190], the fact that Slovene *znati* has been semantically extending into the domain of KNOW-2 and acquiring modal functions is not very remarkable—at least judging from a general and Euro-typological perspective. It is striking, however, from a Slavic point of view, since this development is not attested for *\*ĝnō*-based verbs in the other Slavic languages. This is shown, e.g., by HANSEN [2001] in his diachronic investigation of modality in OCS, Russian, Polish and BCS, which leads him to conclude that for these languages, no other grammaticalisation path besides 'power' (*\*mog*) can be observed [IBID.: 409].<sup>14</sup> The path from *\*mog* resembles that of *\*ĝnō*, in that the original meaning of

<sup>12</sup> The diachronic development of the modal functions still needs to be analysed in more detail. For a first and very rough overview see [SONNENHAUSER 2014].

<sup>13</sup> There are very rare occurrences of what might be considered deontic usages in older texts, such as (iii) and (iv). However, for (iv) an epistemic interpretation seems possible as well.

(iii) Vunder si ti Gofpod taisti, / K'dir nam *sna* grehe odpustit'. [IMP: Gašpar Rupnik, *Pesmi krščanskega nauka*, 1784]

'You are that wonder, Lord, / You, who *can* forgive us our sins.'

(iv) Je vže vse e napravlenu? — Zdej vže *znajo* priti.

[IMP: Anton Linhart, *Županova Micka*, 1790]

'Is everything prepared? — Now they *can* / *may* come already.'

It remains to be investigated how far these uses are influenced by the underlying model texts and the specific language background of the authors. Many texts of the 17th and 18th century are close translations from German, oftentimes by writers who were educated in German (with Slovene still not being a polyfunctional literary language by the end of the 18th century).

<sup>14</sup> See also BUCK [1946: 648], who notes cognates of *\*mog* as 'general Slavic' in his entry for 'can, may.'

‘might, power’ [BUCK 1949: 647] develops into ability and possibility [HANSEN 2001: 414].<sup>15</sup>

Obviously, Slovene and Russian instantiate the two main paths towards modality in what may be called Standard Average European, corresponding to the cross-linguistic pattern that “ability grams may come either from verbs such as ‘know,’ which express mental ability, or verbs such as ‘have the power or might,’ which express physical ability” [BYBEE ET AL. 1994: 191]. They differ in that one path (*\*mog*) is to be expected for Slavic, while the other (*\*ĝnō*) constitutes a peculiarity within this family.

## 6. Conclusion and further embedding

As has been shown, with respect to the lexicalisation of KNOWLEDGE, Slovene is special among the Slavic languages in two respects. First, it has preserved verbs based on *\*ĝnō* and *\*ueǵd*. While this can be observed for part of the other Slavic languages as well, the semantic coverage of both is particular in Slovene. This is specifically striking for *\*ĝnō*, which reaches into the domain of KNOW-2. Second, *\*ĝnō*-based *znati* has not only been entering the domain of KNOW-2, i.e., the ability domain, but in addition has been continuing to develop into a marker of participant-internal, participant-external and even epistemic possibility. In this respect, Slovene resembles German, which has *können* (< *\*ĝnō*) as a fully-fledged modal. By the division of KNOWLEDGE and the particular development of *\*ĝnō*, Slovene is closer to German than to any other Slavic language. The differences between Slovene *znati* and Russian *znat'* on the one hand, and the similarities between Slovene *znati* and German *können* on the other concerning the coverage of KNOW-2 / ABILITY are summarised in table 7.

Table 7. Slovene between Slavic and German

lexicatisation \ ABILITY		general	specific (~> deontic possibility)	promise-level (~> epistemic possibility)
German	<i>*ĝnō</i> > <i>können</i>	+	+	+
Slovene	<i>*ĝnō</i> > <i>znati</i>	+	(+?)	+
Russian	<i>*ĝnō</i> > <i>znat'</i>	—	—	—

As has been pointed out, there is one feature shared by all Slavic languages that have preserved verbs based on *\*ueǵd* vs. *\*ĝnō*: they are the most central of

<sup>15</sup> Slovene has also *moči*, a cognate of Russian *moč'*. However, *moči* is restricted to negative possibility in contemporary Slovene, being in polarity-based complementary distribution with *lahko* (for details cf. [ROEDER, HANSEN 2006; MARUŠIČ, ŽAUCER 2016]).



their family and have all been in contact with German on various levels: oral contact, literacy contact and contact on the level of grammatical description. The lexical division of KNOWLEDGE therefore seems likely to be an areal phenomenon, with the specific semantic range of Slovene *znati* being indicative of a particularly close, intensive and long lasting contact to German. Whether the lexicalisation of KNOWLEDGE could also be taken as a feature of a possible Central European area (e.g., [NEWERKLA 2002]), encompassing Slovene, German, Western South Slavic (i.e., Kajkavian) and West Slavic (in particular Czech), remains to be investigated.

In any case, the linguistic expression of KNOWLEDGE turns from a mere lexicological peculiarity into a grammatically relevant phenomenon. Thereby, the lexicalisation of KNOWLEDGE emerges as a potential object of investigation for lexical typology (along the lines of, e.g., [KOPTJEVSKAJA-TAMM 2012; RAXILINA, PLUNGJAN 2007]), as indicated in table 8.

Table 8. KNOWLEDGE between lexicon and grammar

concept	linguistic level	Slovene vs. Russian
KNOWLEDGE	lexicon: KNOW 1, 2, 3	<i>znati</i> / <i>vedeti</i> vs. <i>znat'</i> / <i>vedat'</i> → different partitions
ABILITY	lexicon ↔ grammar	<i>znati</i> vs. <i>znat'</i> → ± grammaticalisation
MODALITY	grammaticalisation paths	* <i>ĝnō</i> ; * <i>mog</i> → typological differences

Moreover, tracing the development of \**ĝnō* and \**ueid* in the European languages might also have implications concerning different ‘naïve models of the world’ (along the lines of [APRESJAN 1986]).

From a primarily Slovene point of view, further research needs to take into account the relation between the modal uses of *znati* as compared to *moči* and *lahko*. While the latter prove to be in polarity-based complementary distribution (see [ROEDER, HANSEN 2006]), the possible functional division between *lahko* and *znati*, and between *ne moči* and (*ne*) *znati*, has not yet been investigated in detail. The parallel texts in (33) give a short indication of the kinds of relations between those verbs: German has *können* used in different senses: (i) and (ii) express dynamic modality (ability), (iii) gives the assessment of the likelihood of the situation, i.e., is used epistemically, with the following context (‘would be greater than Frangipani’) providing the basis for this assessment. In Slovene, the dynamic meanings are expressed by *znati*, (i) and (iii), whereas *ne more*, (ii), gives the epistemic assessment. Whether the usage of *ne more* is due to the negation or whether this is simply for stylistic reasons remains to be analysed on a more systematic basis.

- (33) a. Ger: Ich weiß zwar, dass er das, was er behauptet, (i) *nicht kann*, ja gar nicht (ii) *können* (iii) *kann*, er wäre denn noch größer als der große Frangipani.  
[PARASOL]  
b. Slo: Vem sicer, da tega, kar zatrjuje, (i) *ne zna*, seveda tega niti (ii) *ne more* (iii) *znati*, ker bi bil sicer še večji od velikega Frangipanija.

This potential division of labour between the various possibility predicates in Slovene needs to be investigated also from a diachronic perspective. Of particular interest is the rise of modal functions for *znati* and its possible relation to the 'modal cycle' (as suggested by [MARUŠIČ, ŽAUCER 2016]) underlying the development of the modal adverb *lahko* at the expense of *moči*.

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