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Polish spatial expressions in early L2 development: The impact of form-based input enhancement

Introduction

There has been a long-standing Second Language Acquisition (SLA) debate over the possibility to externally manipulate input in order to direct the learner's attention towards some aspects of target language and, as a consequence, to facilitate language learning (e.g. Chini 2011, Han 2001, Norris & Ortega 2006, Ellis 2001, Doughty & Williams 1998). Most researchers working in SLA usage-based or form-focused models agree today that a certain amount of focus on linguistic form is needed in order to acquire second language (L2) grammar, as it encourages noticing of linguistic features and their learning.

The emergence of grammatical forms and form-meaning mapping in novice L2 learner varieties, rarely addressed in past decades¹, has been receiving a growing interest in SLA research, conducted both from generative and functional perspective. This interest has yielded in recent years a series of publications devoted specifically to the initial stages of SLA (e.g. Han & Rast (eds.) 2014, Carrol 2013, Gullberg & Indefrey (eds.) 2010). However, studies directly exploring the impact of *input enhancement*² on initial L2 grammar learning are few and no general consensus has been reached as to whether such an external

¹ One of the first studies on early SLA was conducted within the ESF project (PERDUE 1993) investigating L2 development in natural settings.

² *Input enhancement* is a very broad SLA term referring to a series of techniques used to make salient selected features of a target language in instructed learning.

manipulation of classroom input may accelerate language learning, by helping *ab initio* learners notice and process L2 grammatical cues. For instance, in some recent studies based on the VILLA project data, the role of *focus on form*³ in L2 initial learning has not been unequivocally demonstrated (Latos et al. 2016, Watorek et al., in print).

The study seeks to preliminary explore whether drawing attention to target morphosyntactic distinctions by mainly visual focus-on-form input enhancement may be beneficial to novice learners, resulting in their more successful grammatical performance. In order to fulfil such an objective, we analyse and compare the production of two spatial expressions, i.e. *w + lewo/prawo* vs. *na+lewo/prawo* ‘into + left/right’ vs. ‘on + left/right’, in an offline and semi-free task by two groups of initial French learners who took a 14-hour Polish course within the VILLA project. The experiment participants were exposed to the communicative, predominantly oral and monolingual input which differed in respect to whether or not their attention was drawn to specific morphosyntactic features of the target language (TL): Form-based session (FB) vs. Meaning-based session (MB). At the end of each teaching session, the learners verbally interacted with a Polish native interviewer during a complex route direction-giving task. Our main aim is to verify whether the formal composition of the spatial patterns and their morphosyntactic coding which were enhanced in the FB classroom input through a focus on form have better chances of being noticed and produced by learners.

The target linguistic elements chosen for our analysis are two compound spatial expressions used in the classroom input to indicate the change of direction (dynamic pattern) and to locate objects/places (static pattern) according to the left-right orientation. Such a choice has several motivations. First, the target spatial expressions were used as a part of two semantically distinct morphosyntactic patterns, i.e. static localization *versus* dynamic movement patterns, and their form-meaning distinction was clear-cut. Second, the two spatial patterns were frequently used in both inputs and focused on several times during the FB classroom activities (Watorek et al., in print). Finally, the target items were produced at least once by all learners during the direction-giving task, so it allows for the inter-group comparison.

³ *Focus on form*, contrasted principally with *focus on meaning*, refers to drawing learners' attention to L2 formal/grammatical properties.

The comparison of the learners' oral productions, conducted at group and intra-individual learner levels, will be preceded by the assessment of the usage frequency and temporal distribution of the two spatial patterns in the inputs provided to both groups of learners. The comparability of the inputs with respect to the presence and use of the spatial expressions under examination is crucial to our study for the following reasons: it is widely assumed that the frequency and distribution of linguistic elements in the input are important factors that might increase the saliency of target items, and thus their chances of being noted and analysed by learners (e.g. Ellis 2002, 2006, Larsen-Freeman 1976, Tomasello 2003); as a consequence only a parallel statistical and temporal distribution of the target spatial expressions in the two inputs enables us to explain the expected greater gains in the production of the target expressions in the FB group ("working hypothesis") as an effect of their increased saliency achieved through the FB input enhancement.

The study is organised as follows: the description of relevant methodological issues of the study (Section 2), the assessment of input statistical and distributional properties and the analyses of the learners' productions of target linguistic elements (Section 3), the discussion of results and main findings (Section 4) and general conclusions (Section 5).

Methodology of the study

VILLA project

The data analysed in this study were gathered during two experimental sessions of a Polish course organised in Paris within the VILLA international project "Varieties of Initial Learners in Language Acquisition controlled classroom input and elementary forms of linguistic organisation"⁴. The principal objective of this extensive research project was to explore the early stages of SLA in controlled classroom conditions. The employment of a natural target language - the highly inflected Polish language - and the total control over the input provided in the form of a language course to experiment participants with five diverse L1s were major methodological novelties of the study (see Dimroth et al. 2013, Latos et al. 2016 for more details).

⁴ The research project was funded by a grant from the Open Research Area in Europe for the Social Sciences (ANR, DFG, NWO) from France, Germany, and the Netherlands for the period 2011-2014. The website of the project: <http://villa.cnrs.fr>.

Polish course

The Polish course was conducted in a communication-based classroom setting. The learners, divided into two distinct learner groups (Meaning-based or Form-based), were exposed to the total of approximately 14 hours of a predominantly oral and exclusively monolingual input based on meaning. Both learning sessions were taught by the same teacher, a native speaker of Polish. The input provided in a meaningful learning context contained no meta-language nor explicit grammar teaching. As a support to the oral instruction during the classroom sessions, the teacher constantly used the visual support consisting of Power Point slides containing illustrations, symbols, TL⁵ words and short sentences as well as previously recorded short dialogs, placed on the slides in the form of audio files.

Each teaching session was conducted following exactly the same didactic sequence based on a detailed course syllabus, which was composed of analogous linguistic contents realized in the form of building blocks of meaning. With the exclusion of the last 30-minute class, each lesson lasted 90 minutes and was composed of two 45-minute parts with a 15-minute break. The learners were instructed not to take notes during the lessons, nor to consult any Polish learning materials, such as manuals, dictionaries or grammar books over the whole course period.

The classroom sessions were recorded and filmed. Subsequently, the whole oral input provided by the teacher (TEA) was transcribed in the CHAT format⁶. In the post-data collection period, these files were used to measure token frequency and temporal distribution in the input as well as to assess other distributional or qualitative properties of TL input data.

Polish spatial expressions

The Polish phrases *na+lewo/prawo* and *w+prawo/lewo* are spatial expressions encoding location or position⁷ in motion according to the left-right orientation. The phrases are composed of a morphologically invariable noun *prawo* 'right' or *lewo* 'left' and a specific preposition. The choice between the preposition *na* 'on' and *w* 'in/into' depends on the usage context and is related to the type of verb employed in the utterance. Static verbs such as, for instance, *być* 'to be' or *znajdować się* 'there be' are used exclusively with the prepositional

⁵ The abbreviation for *target language*, i.e. the language that is being learned.

⁶ CHAT: Codes for the Human Analysis of Transcripts (MacWhinney 2000).

⁷ Location is meant as a fixed place and position as a variable one.

phrase *naprawo/lewo* to locate a person or object in the space (static context), as exemplified in (1). The second pattern is typically used with motion verbs such as *iść* 'to go' or *jechać* 'to drive'⁸ to encode the change of direction during the movement (dynamic context), as (2) illustrates.

1. *Dom jest na lewo/*w lewo, a dworzec na prawo/*w prawo.*

'The house is (situated) on (the) left side, whereas the station on (the) right side.'

2. *Ja pójdę w prawo a ty idź w lewo!*

'I'll go into right and you go into left!'

In the input provided to the learners, the invariable nominal forms *prawo* 'right' and *lewo* 'left' appeared in two different syntactic patterns. In the first pattern, the forms were introduced by the preposition *w* 'in' and formed part of composed spatial expressions: *w+prawo* 'into right' or *w+lewo* 'into left'. The two prepositional phrases were used only with the motion verb *skręcić* in conjugated (3) or infinitival form (4), often as part of imperative construction (5). Their usage was cognitively related to direction change in the movement-related dynamic contexts.

3. *On skręca w prawo.* (TEA⁹, MB session)

'He turns into right.'

4. *Skręcić w lewo.* (TEA, MB session)

'To turn into left.'

5. *Proszę skręcić w lewo.* (TEA, FB session)

'Please, turn into left.'

The spatial nouns were also introduced by the preposition *na* 'on'. The two-part complex expressions *na+prawo* 'on right (side)' or *na+lewo* 'on left (side)' were exclusively used with static verbs such as *być* 'to be', *znajdować się* 'there be' (ex. 6-8). The second syntactic pattern was, thus, related to the context of static location. It needs to be mentioned that in the static locative pattern the spatial expression was always preceded by conjugated verbs.

⁸ In Polish (L1) the choice between the two spatial expressions depends on the verbal preferences of a motion verb. We have compared co-occurrences of chosen motion verbs with both spatial expressions in the National Corpus of Polish Language (NKJP). Some motion verbs are used in only one pattern (*wychodzić w prawo*/0* occurrence vs. *wychodzić na prawo/88* occurrences), others occur with both expressions (*iść w prawo/35* occurrences vs. *iść na prawo/64* occurrences), yet others exhibit a clear preference for one pattern, even if the second one is also possible (*skręcić w prawo/310* occurrences vs. *skręcić na prawo/14* occurrences).

⁹ The abbreviation indicates the teacher's productions.

6. *Kuchnia znajduje się na lewo, garaż znajduje się na prawo.* (TEA, MB session)
'(The) kitchen is located on left (side), (the) garage is located on right (side).'
7. *Czy toaleta jest na prawo?* (TEA, MB session)
'Is (the) toilet on right (side)?'
8. *Schody znajdują się na lewo, nie na prawo.* (TEA, FB session).
'The stairs are located on left not on right (side).'

In conclusion, it is important to emphasize that the input use of the two spatial syntactic patterns mirrored a clear-cut and cognitively motivated form-meaning distinction: '*na+lewo/prawo*' for static location vs. '*w+lewo/prawo*' for dynamic change of direction.

Experiment participants

The experiment participants were French L1 monolingual speakers with no prior knowledge of Polish nor any other Slavonic language. This important prerequisite was tested by means of a language background questionnaire and a Language Sensitivity test during individual interviews conducted before the course. All learners were university students with specialization courses in various scientific areas, excluding modern languages, linguistics and psychology. The recruited experiment participants were divided into two learner groups, i.e. Meaning-based (MB) or Form-based (FB). Both groups of French adult learners attended a two-week intensive Polish course in Paris, their home city. The language instruction given to the learners was based on meaning and consisted in 10 daily teaching sessions conducted in accordance with the same syllabus. The MB group was composed of 17 participants (13 female and 4 male subjects) aged between 18 and 29, while the FB group included 19 learners (12 female and 7 male subjects) aged between 19 and 24.

Two types of exposure

The instruction received by French L2 learners was differentiated according to two different approaches to presenting the same input, i.e. Meaning-based vs. Form-based. These two exposure types are the main variables of our study. Specifically, the TL input used in the two experimental classroom sessions differed in the degree of meta-linguistic explicitness. The MB input did not contain any overt focus on TL formal properties. In contrast, the FB input was visually enhanced in order to direct the learners' attention to chosen TL form-related properties (cf. Sharwood-Smith 1993, Doughty & Williams 1998). To enhance the noticing of TL syntactic structures and morphological endings,

various techniques of typographic input enhancement, such as bolding, underlining or colour highlighting, and a minimal structuring of grammatical content in the form of simplified paradigms and patterns, were used. In addition to the typographic enhancement and the rule-oriented structuring of the FB input, in the FB classroom session the teacher tended to privilege explicit corrective feedback such as explicit corrections or repetitions, whereas the MB instruction implied a strong limitation of explicit corrective feedback and the preference for using other, more 'indirect', forms of teacher's correction such as reformulations or clarification requests.

The focus on linguistic form was obtained in different ways depending on treated linguistic materials and teaching objectives. The direction-giving and asking activity consisted in the verbal production of different routes elaborated on the basis of two-dimensional city maps (Fig.1). The visual material used in the MB session as a support for direction-giving communication did not contain slides with graphically structured syntactic patterns, highlighted inflectional endings or underlined dedicated prepositions. The MB learners' attention was not deliberately drawn to morphosyntactic features of TL discourse sequences employed to indicate localisation or path during classroom interactions.

In contrast, pre-selected formal properties of TL system were made overtly visible to the FB learners. The target spatial expressions were focused on in the visual material presented in the FB session on different communicative occasions (lessons from 4 to 9). As exemplified in Fig. 2, the FB learners' attention was directed to the formal composition and the spatial meaning of the static pattern in diverse communicative contexts such as the description of a house interior or of public places and their reciprocal position. The prepositional makeup *na*+spatial noun was presented as a structural arrangement common to the top-down and left-right space orientation, i.e. *na+prawo/lewo*, *na+górze/dole*.

As Fig. 3 illustrates, the learners exposed to the FB input were overtly shown the dynamic pattern, as well. The sequence displayed within a complex schema of imperative construction was used to provide direction indications during the movement on foot (*iść*) or by means of transportations (*jechać*). The target elements were graphically realised as a part of complex sequence composed of the verb *skręcić* followed by the direction change indication (*w prawo* and *w lewo*) or as isolated prepositional phrases: *w lewo* and *w prawo*. In both cases, the direction was symbolically represented by an arrow.



Figure 1. City map in classroom activities

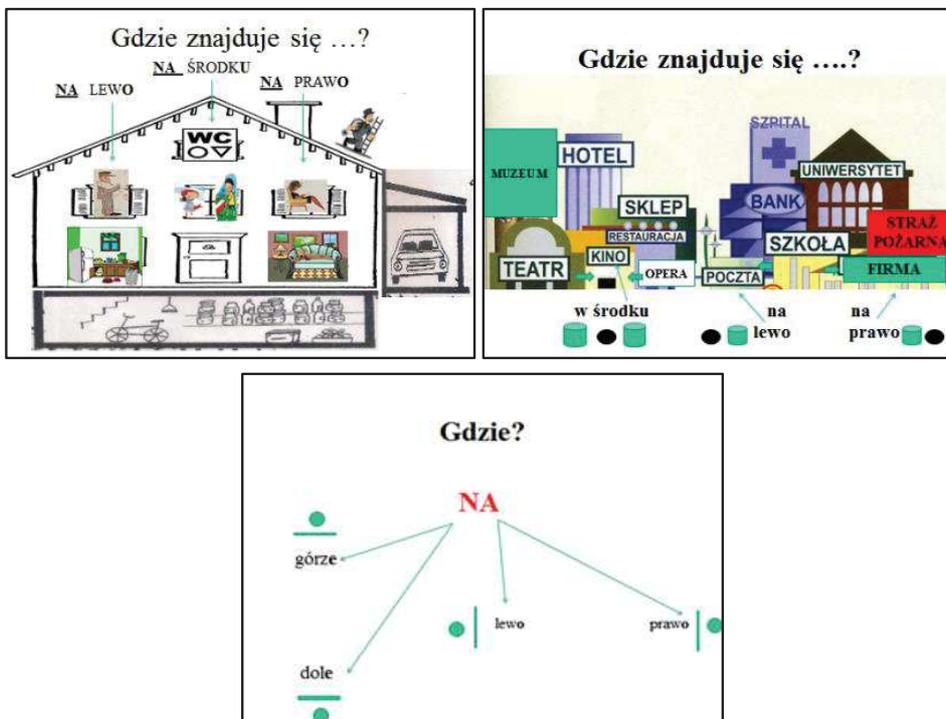


Figure 2. Examples of the FB input enhancement: *na + lewo/prawo*



Figure 3. Examples of the FB input enhancement: *w + prawo/lewo*

Route Direction task

Our experimental data were elicited using a very complex verbal task named *Route Direction*. All learners were tested individually at the end of the teaching session. The task was conducted with the help of a simplified city map (Fig.4) containing the current location of interlocutors (red dot) and the route indication (red arrow) leading among different landmarks (e.g. hospital, school, parks, streets) to the target location.

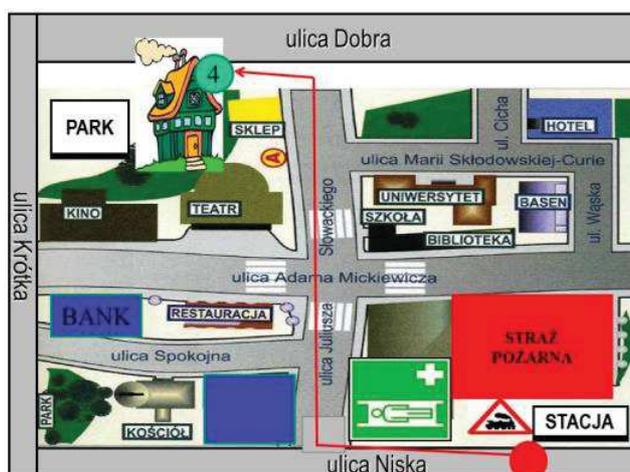


Figure 4. City map in the Route Direction Task

The Polish experimenter initiated the interaction by a short and carefully planned introduction to the task (see Appendix 1). During the learner's verbal production, the experimenter acted as a tourist, providing the learner with a feedback consisting mainly of fillers and other interjections. A simulated interaction was conducted entirely in Polish. The learner's aural production was recorded and transcribed.

It should be emphasised that the raw data involve exclusively learners' phonological realisations. As discussed previously, the target patterns are made up of a morphologically invariable noun (*lewo/prawo*) and a preposition that varies according to the syntactic context. For this reason, the productions of the two structural components have been assessed differently. All learners' realisations of the invariable nouns, even if diverse from the target-like format, e.g. *liwo*, *liewo*, *blawo*, *grawo* or *prewo*¹⁰, have been included in our analysis. Conversely, only the aural productions in which the type of preposition is clearly

¹⁰ The learners' variants present the substitution of the vocal or consonant sound, including sound cluster, in any position of morphologically invariable word.

recognizable have been taken into account. As a consequence, morphosyntactically ambiguous structures like *na wlewo*¹¹, due to a diverse, non-target, word segmentation, have not been considered.

Analyses and results

Input: frequency and temporal distribution

The crucial role of input and its structural, statistical and distributional properties in language learning is today undeniable: “a cognitive representation of so called “grammar” can be tied to the experience a speaker has had with the language” (Bybee 2006: 711). Our data was elicited from learners exposed to the input in two different learning sessions. Thus, it is important to verify whether the inputs provided to the two groups of learners are comparable with respect to the frequency and distribution of the target spatial expressions. As already discussed, the target spatial phrases were used in two different contexts: dynamic description involving the motion verbs *skręcić* and *iść* and static description based on static verbs *być* and *znajdować się*. We have compared the usage frequency and temporal distribution of the two spatial patterns and each expression separately in the MB and FB input (see Tab. 1).

In both sessions, the spatial expressions related to direction change were introduced during the lesson 4, while the prepositional phrases locating objects or places appeared for the first time in the lesson 5. The two spatial patterns were consistently used in the subsequent lessons, i.e. 6-10. The token-frequency, i.e. the frequency of actual item, and its temporal distribution were alike across the two teaching sessions. Only minor differences in the token-frequency (+/-15) can be identified: *w+lewo* 88 (MB) vs. 98 (FB), *w+prawo* 112 (MB) vs. 115 (FB), *na+lewo* 91 (MB) vs. 79 (FB), *na+prawo* 87 (MB) vs. 83 (FB). If we consider the type-frequency, that is to say, the frequency of each target pattern measured as an overall number of its occurrences, we can note that the dynamic pattern is slightly more recurrent than the static one in the two inputs and that this difference is somewhat bigger in the FB session. In general, the proportion of the employment of the two spatial patterns appears fairly balanced (“around half-to-half”): dynamic pattern (53%) vs. static pattern (47%) in the MB session, dynamic pattern (57%) vs. static (43%) in the FB session.

¹¹ The learner’s variant is composed of the preposition *na* and the noun *wlewo* which incorporates an additional sound *w*, corresponding to the preposition used in the dynamic pattern.

The type of preposition used by a learner in the target patterns is a crucial criterion for assessing the form-meaning association. For this reason, we have additionally compared the total number of the occurrences of the two propositions and their usage patterns in both inputs. As shown in Appendix 2 and 3, the target prepositions were equally frequent (min. 950/ max.1060 occurrences) and used in similar usage patterns in both inputs. In sum, it can be concluded that the two inputs exhibit a parallel distribution of the spatial expressions and are to a great extent comparable in respect to the frequency of the target linguistic elements.

Table 1. Frequency and temporal distribution of the target spatial expressions

Lessons	MB				FB			
	Dynamic		Static		Dynamic		Static	
	<i>W lewo</i>	<i>W prawo</i>	<i>Na lewo</i>	<i>Na prawo</i>	<i>W lewo</i>	<i>W prawo</i>	<i>Na lewo</i>	<i>Na prawo</i>
1-3	0	0	0	0	0	0	0	0
4	5	5	0	0	4	5	0	0
5	0	0	23	20	0	0	13	15
6	2	2	19	33	1	1	23	23
7	45	63	15	12	32	50	10	7
8	10	15	22	14	38	39	20	23
9	17	20	10	7	14	7	10	10
10	9	7	2	1	9	13	3	5
TOT	88	112	91	87	98	115	79	83
CUM	200		178		213		162	
PCT	53%		47%		57%		43%	

Spatial expressions in learners' output

All learners produced spatial prepositional phrases at least once in the dynamic context of direction change, that is to say, with the motion verbs. Only a few learners used spatial expressions in static contexts with static verbal forms. This may be explained by the specificity of the Route Direction task. The dynamic pattern is mandatory in order to indicate the movement towards the destination point. Moreover, the route traced on the map (see Fig. 3), implies a non-linear movement which requires the change of its direction. Conversely, the use of static expressions to locate a landmark or destination point on one of the two sides of the route is optional in the task.

We have divided our analysis into two distinct parts: (i) analysis and comparison of spatial compound expressions in dynamic and static contexts on

group level, and (ii) analysis and comparison of spatial compound expressions in static and dynamic contexts on learner level (intra-learner comparison).

Dynamic and static context: analysis on group level

Dynamic contexts require the use of a motion verb and, as a consequence, the employment of spatial expressions with the preposition *w*, whereas in target-like patterns a static verbal form is combined with a spatial expression through the preposition *na*. We have compared the MB and FB learners' productions of target items in dynamic and static contexts with respect to their formal composition, i.e. the presence or lack of a preposition¹² and the type of preposition used. In the MB group 38 dynamic and 10 static sequences were produced with spatial expressions. The FB learners used target expressions 38 times in dynamic contexts and 14 times in static ones.

As showed in Tab. 2, in the majority of the FB productions (87%), the prepositional expression was structurally complete, i.e. composed of a preposition and a noun, and appropriate for the dynamic context, i.e. produced with the preposition *w*. Only 2 utterances contained the structurally complete expression which was introduced by the preposition *na*, mandatory for static localisation contexts. In the two remaining FB productions (5%) the spatial noun was used without any preposition. Half of the MB productions (50%) contained a structurally complete but morphosyntactically inappropriate prepositional phrase *na+prawo* or *na+lewo*. The employment of a structurally complete and appropriate spatial expression amounted to 42% in this learner group. Similar to the FB productions, only 3 utterances (8%) contained solely a spatial noun which was not introduced by a preposition.

Table 2. Learner output: Spatial expressions in dynamic contexts

TYPE	MB	FB
W + LEWO/PRAWO	16 (42%)	33 (87%)
NA + LEWO/PRAWO	19 (50%)	2 (5%)
LEWO/PRAWO	3 (8%)	3 (8%)
TOTAL	38	38

¹² The target spatial expressions under exam are structurally complex two-part prepositional phrases. It can be hypothesized that the composite expressions can also be learned as compact one-part words or chunks. In such a case the preposition is not a free but bound morpheme (affix) and the variation occurs in the internal structure of the target element.

As already indicated, the use of spatial expressions with static verbs was less frequent in the learners' outputs¹³. In the MB learner group, all productions of spatial phrases in static context were syntactically and contextually appropriate (Tab. 3). The majority of the FB productions (70%) exhibited a target-like spatial format, too. Around one third of the FB static spatial patterns contained the preposition *w* proper for dynamic contexts.

Table 3. Learner output: Spatial expressions in static contexts

TYPE	MB	FB
NA + LEWO/PRAWO	10 (100%)	10 (70%)
W + LEWO/PRAWO	0	4 (30%)
TOTAL	10	14

Since the target spatial expressions were rarely produced in static contexts and only by a limited number of learners - 10 out of 17 MB learners and 12 out of 19 FB learners - the comparison of these structural patterns on group level is only partially reliable.

Static vs. dynamic use: analysis on individual level

We have performed an intra-learner analysis. Specifically, we have selected only those individual productions in which the target spatial expressions were used with both static and motion verbs. Subsequently, we have verified whether the produced spatial patterns differed, and if so, whether they were morphosyntactically appropriate, i.e. the syntactic format of the expression corresponded to the context of use, i.e. dynamic vs. static.

As we can see in Tab.4, in each learner group around half of the learners who produced spatial expressions in two different communicative contexts did not differentiate between their structural patterns and made use of only one preposition. Interestingly, the MB learners exclusively used the preposition *na*, proper for static contexts, whereas the FB learners, except for one subject, showed a clear preference for the preposition *w*, required in dynamic contexts. Approximately half of the learners in both learner groups used spatial phrases with a proper context-dependent distinction.

¹³ Examples of static learners' productions: 9./*Dom Kowalskich jest na lewo/* (FB Learner1218) 'Kowalski's house is (situated) on left (side)' 10./*Numer cztery jest na lewo/* (MB Learner 1106) 'Number four is (situated) on left (side)'.

Table 4. Individual productions: static vs. dynamic context

TYPE	MB	FB
NA + LEWO/PRAWO	4	1
W + LEWO/PRAWO	0	5
1 PATTERN	44%	50%
CONTEXTUALLY APPROPRIATE	4 (44%)	5 (42%)
CONTEXTUALLY INAPPROPRIATE	1 (12%)	0
INCOMPLETE	0	1 (8%)
2 PATTERNS	56%	50%
TOTAL	9	12

Discussion of the results and main findings

Our results show that the FB learner group outperformed the MB group in using appropriate spatial expressions, i.e. *w+lewo/prawo*, in dynamic contexts characterised by the use of a motion verb. The MB group showed a greater arbitrariness (ca.50%) in the choice of a morphosyntactic pattern in the same communicative contexts. The greater instability of the MB productions in terms of a specific construction employment cannot be attributed to substantial differences in the use and frequency of such elements nor to the divergent distribution of the two patterns across the two learning sessions, since, as discussed in Sec. 3.1, the frequency and other distributional values of the target constructions were to a great extent alike in the two inputs. This may suggest that the focus-on-form input enhancement helped the FB learners to detect and differentiate morphosyntactic patterns.

Interestingly, such an inter-group dissimilarity has not been identified in the comparison of the structures used to encode the static meaning. In static contexts, all MB productions (100%) exhibited a target-like structural pattern, while in one-third of the FB productions the dynamic format was applied instead. This peculiar and somehow unexpected result can be explained by the following facts.

First, as already pointed out, the employment of the spatial phrases with static verbs was less frequent in both learner groups. Thus, the comparison of the productions in static contexts is partial and non-fully explanatory for the inter-group variation, as it concerns only a part of subjects exposed to the different types of input exposure. Moreover, such a result may be to some extent related to the performance of the individual learners' who differentiated

the meaning of the target spatial constructions. We will return to this issue when discussing individual learners' performances.

Second, a clear preference for the static formats in suitable and non-suitable communicative contexts and a relatively infrequent production of the dynamic pattern, observed in the MB group, may lead us to conclude that the static construction, i.e. *na+prawo/lewo*, was a "default" pattern in the MB group. The most MB learners tended to encode the spatial meaning in the static format, irrespective of the fact that the global number of occurrences of the dynamic pattern *w+prawo/lewo* was slightly higher (53% vs. 47%) in the input. What additional factors may have been responsible for such a preference?

It needs to be recalled that, unlike in the FB session, the two spatial patterns, differing in morphosyntactic composition and semantic specificity, were never visually presented to the MB learners. In the MB session, the processing of these linguistic elements was based on their phonological representations in the aural input. In phonological terms, the static pattern is perceptually more salient as it contains the morphologically invariant noun (*lewo/prawo*), common to both constructions, and the preposition composed of two sounds: the consonant /n/ and the vowel /a/. Conversely, the dynamic pattern includes the preposition *w* which is phonetically realised as a consonantal sound /f/ before the noun *prawo* and as a consonantal sound /w/ before the invariable noun *lewo*. Being phonologically less prominent and more irregular, the latter compound is probably more difficult to process.

In the light of the above discussion, it is possible to explain the observed tendencies in the encoding of spatial meaning on group level as the effects of the two different input exposures. The tendency to encode two semantically distinct spatial meanings in one format which is phonologically more salient and regular appears justifiable and plausible if we assume that phonological representations played a crucial role in the extracting and processing of linguistic information from the MB input. In contrast, the input enhancement, consisting in a predominantly visual focus-on-form, may have prompted the noticing of divergent morphosyntactic patterns, even if their phonological prominence in the aural input was dissimilar. As a consequence, the FB form-based instruction might have helped initial learners to semantically differentiate and encode the target spatial meanings according to the communicative contexts of usage.

This conclusion has been, somehow, challenged by the results of an additional analysis of the individual learners' productions in which the target spatial expressions were used in two diverse contexts by the same learner. The

intra-learner comparison has pointed out a comparable distribution of the results. Approximately a half of the MB and FB subjects who produced spatial expressions with static and motion verbs, did not properly encode the spatial meaning, opting for only one morphosyntactic pattern. The FB learners were likely to produce dynamic patterns, whereas the MB learners static ones. The preference for the static pattern in the MB group has been already linked to the concept of phonological saliency. The preference for the dynamic pattern in the FB group may be attributed to the communicative saliency of the dynamic construction in the verbal Route Direction task, as discussed in Sec. 3.2.

The remaining MB and FB learners who produced two different structural patterns did differentiate the meaning of the target spatial constructions. In other words, they encoded the spatial meaning into a morphosyntactic format according to the communicative context. The number of such learners is relatively small (ca. 25% of all subjects) and comparable across the two learner groups (4 MB vs. 5 FB subjects). In the inter-group analysis of this study, the form-based input enhancement has been hypothesized to be an important visual aid facilitating the early processing of oral linguistic data. The intra-learner examination has pointed out that in the two learning sessions only around half of learners who produced spatial expressions in two different communicative contexts managed to differentiate the two diverse morphosyntactic formats and used spatial phrases with a proper context-dependent distinction (55% in the MB session, 50% in the FB session). It can be hypothesized that a learner's response to a new language is contemporaneously influenced by the input properties, including the instruction form, as well as by other factors such as learner's individual characteristics and capacities. Our last result implies that a supportive role of the form-based classroom instruction should be further corroborated with the analysis of the learner individual differences and the examination of how such individual characteristics interact with the classroom input.

Conclusions

On the basis of this study we might reasonably draw the following conclusions. First, as showed in the intra-learner analysis, initial learners are able to learn specific morphosyntactic features and to differentiate the spatial meaning of the distinct constructions, independently of the type of input exposure they are exposed to. This implies that the input enhancement alone cannot

explain a successful L2 development. Individuality seems to be another key factor strongly influencing L2 grammar learning. Second, in the inter-group analysis no clear meaning-form associated learning has been observed, partially because the two contexts of use, i.e. dynamic versus static, were quantitatively incomparable in the learners' productions. The inter-group dissimilarities in the encoding of spatial meaning into morphosyntactic structures have been theorized as the effect of the focus-on-form input enhancement. Nevertheless, the supportive role of such a didactic intervention should be further investigated in relation to other variables, in particular individual learner differences.

Appendixes

Appendix 1. Route Direction Test: procedure and instructions

After a short introduction to the task in the subject's native language, the Polish experimenter says: Jesteśmy tu, na stacji kolejowej w Krakowie (*pokazać czerwoną kropkę na planie*). Ja (*pokazać na siebie*) jestem turystą z Warszawy, a ty (*pokazać na ucznia*) mieszkasz w Krakowie. Ja (*pokazać na siebie*) - turysta pytam o informacje: Przepraszam bardzo, jak iść do ulicy Dobrej 4? 'We are here, at the railway station in Cracow (*please, indicate red dot on the map*). I am (*please, indicate yourself*) a tourist from Warsaw, and you (*please, indicate the learner*) live in Cracow. I (*please, indicate yourself*) - tourist ask for information: Excuse me, how to get to the street Dobra 4?'

While the learner is giving route-directions, the experimenter, playing a role of a tourist, carefully listens and responds: *tak* (yes), *aha* (ok) etc.

Appendix 2. Frequency & temporal distribution of the prepositions *w* and *na*

Lesson	MB		FB	
	NA	W	NA	W
1	129	43	149	16
2	58	19	37	30
3	33	185	31	133
4	42	105	50	105
5	165	72	162	58
6	188	114	165	100
7	96	187	84	211
8	163	209	147	224
9	99	132	120	117
10	18	25	20	35
TOTAL	991	959	965	1029
	+32	-32	-64	+64

Appendix 3. Main patterns of use of the prepositions *w* and *na*

USE	NA	W
Spatial	NA 'on'+ objects/places <i>Na rowerze</i> <i>Na stole</i> <i>Na uniwersytecie</i> <i>Na poczcie</i> <i>Na stacji</i>	W 'in' + places/objects <i>W domu</i> <i>W teatrze</i> <i>W sklepie</i> W+ city/country <i>W Paryżu, we Francji</i>
Spatial expressions	<i>Na lewo</i> <i>Na prawo</i> <i>Na górze</i> <i>Na dole</i>	<i>W lewo</i> <i>W prawo</i>
Metaphorical	<i>Na + noun</i> <i>Na imię, na przykład</i>	

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Summary: This preliminary study investigates the impact of focus-on-form input enhancement on the oral production of Polish spatial expressions by novice L2 learners. Two groups of French learners were exposed to the communicative input which differed on whether or not their attention was drawn to specific morphosyntactic properties of the target language: Form-based input vs. Meaning-based input. After 14 hours of exposure to the TL input, the learners took a verbal route direction-giving task. The inter-group results reveal a supportive effect of the form-based instruction on the processing and learning of target constructions. The intra-learner results imply the important role of individuality. Final findings suggest complex and multifactorial input-learner interdependences.

Keywords: L2 grammar, initial learners, spatial expressions, oral production, input enhancement, meaning-based vs. form-based instruction

Słowa kluczowe: gramatyka L2, początkujący uczniowie, wyrażenia przestrzenne, produkcja ustna, „wzmacnianie” materiału językowego (language input), metoda nauczania: meaning-based vs. form-based