Language Teaching (2020), **53**, 358–370
doi:10.1017/S0261444819000314

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THINKING ALLOWED

Grammar learning strategies as a key to mastering second language grammar: A research agenda

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Abstract

Although major advances have been made in research on language learning strategies (LLS), there are some areas that have been somewhat surprisingly neglected by specialists. This applies without doubt to the strategies that learners draw on to better understand and learn grammar rules but also to employ grammar structures in real-time processing, as required in spontaneous communication. In this paper, I outline a research agenda for grammar learning strategies (GLS), identifying three distinct lines of inquiry: (1) identification and measurement of GLS, (2) examination of factors moderating GLS use, and (3) strategies-based instruction as applied to GLS. Although these three areas are to some extent reflective of the main foci of empirical investigations in research on LLS, in each case, I try to demonstrate how cutting-edge theoretical and empirical developments can be applied to the study of GLS. For each of the three areas, I propose research tasks the execution of which has the potential of moving research on GLS forward.

1. Introduction

Research into LLS has considerably evolved since Rubin (1975) spearheaded it by identifying the characteristics of good language learners. On the one hand, it has succeeded in the identification of a plethora of strategic devices used in a variety of contexts, resulted in the development of major classifications of LLS, also focusing on target language (TL) skills and subsystems, generated new data collection tools, identified a range of variables mediating strategy use, and verified the effects of strategies-based instruction (SBI) (see Cohen & Macaro, 2007; Cohen, 2011; Oxford, 2011, 2017; Pawlak, 2011a; Griffiths & Oxford, 2014; Griffiths, 2018; Oxford & Amerstorfer, 2018; Pawlak & Oxford, 2018). On the other hand, this line of inquiry has successfully withstood severe critiques (e.g. Dörnyei, 2005, 2009a; Dörnyei & Ryan, 2015) and has managed to rejuvenate itself through incorporating the tenets of complex dynamic systems theories (CDST) (Larsen-Freeman & Cameron, 2008) and delineating new research avenues (Oxford, 2017; Pawlak & Oxford, 2018). While some of the concerns about research on LLS cannot be easily dismissed, in particular those regarding the future directions in which it should be taken or the methodological challenges involved, both educational psychologists (e.g. Winne & Perry, 2000; Zimmerman & Moylan, 2009) and second and foreign language (L2) learning experts (e.g. Oxford, 2017) believe that adept use of strategies is inherently involved in achieving self-regulation. This is surely ample reason to persist in investigating this construct, not least because the findings are perhaps more likely to resonate with teachers and translate into feasible pedagogical implications than the outcomes of studies dealing with such currently popular topics as working memory, emotions, or identity. For this to happen, however, two key conditions must be met: (1) such research should become more focused by targeting LLS use in specific areas (e.g. subsystems, skills), and (2) since LLS use is bound to differ widely as a function of contextual and individual factors, there is a clear need to complement the use of inventories which allow capturing general patterns, with situated studies tapping LLS use in specific learning tasks (Pawlak & Oxford, 2018).

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In light of how robust LLS research continues to be, it was a major surprise to discover how little research existed on strategies that learners apply to learn grammar, or GLS, when I was planning my first study in this area (Pawlak, 2008). My interest in GLS, understood as 'deliberate thoughts and actions that students consciously employed for learning and getting better control over the use of grammar structures' (Cohen & Pinilla-Herrera, 2010, p. 64), came from my involvement in empirical investigations of form-focused instruction (FFI), including corrective feedback (CF) (Pawlak, 2006, 2014), individual differences (ID) (Pawlak, 2011a, 2012a), and studies that sought to illuminate the mediating effects of the latter on the former. It was clear to me from the outset that skillful use of GLS, whether it is intended to learn rules, automatize these rules, or benefit from CF, plays a key role in the mastery of TL grammar. For one thing, similar to other ID factors, the employment of GLS is bound to mediate the effects of any instructional options teachers may choose to fall back upon (Ellis, 2010; Pawlak, 2017). Equally importantly, successful grammar learning, just like L2 learning in general, calls for considerable autonomy, which is mainly fostered through appropriate use of GLS (Pawlak, 2016).

In view of the potential benefits of strategic learning of grammar, it has never ceased to puzzle me how such blatant neglect of GLS could have come about. While the predominance of communicative approaches may be partly to blame (Oxford & Lee, 2007), it surely cannot tell the entire story in view of the fact that grammar teaching has never been called into question, let alone abandoned, in foreign language contexts, and focus on form is seen as indispensable in content-based instruction (CBI, e.g. Lyster, 2017). Even a cursory look at publications dealing with LLS shows that not that much has changed and even though the body of research has increased, the questions asked have remained similar, focusing mainly on the identification of GLS. Thus, there is an obvious need for more research in this area that would not only mirror the developments in the study of LLS but also move this field forward by pursuing new lines of inquiry. The paper represents a modest attempt to propose a research agenda that can provide inspiration for researchers wishing to shed light on how GLS use can aid the acquisition of TL grammar in various contexts. In what follows, I focus on three research strands: (1) identification and measurement of GLS, (2) examination of variables mediating GLS use, and (3) SBI targeting GLS. The first two areas are more relevant for theory and research, while the third is more concerned with harnessing empirical evidence to inform classroom practice. Although these lines of inquiry are reflective of what has transpired in LLS research, the tasks that I propose often go beyond what has been done, thus paving the way for future investigations of GLS.

2. Identification and measurement of GLS

Identification and description of GLS have been the major thrust of the empirical investigations carried out so far, which stems from the fact that the field remains in its infancy. While strategies for learning grammar were reported in research examining overall profiles of LLS use (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985), of particular interest are studies that have specifically addressed GLS. The findings of these studies (e.g. Sarıçoban, 2005; Pawlak, 2008, 2009, 2012b, 2018a) are far from conclusive but they suggest reliance on a limited number of rather traditional GLS as well as evident impact of predominant instructional and assessment techniques. Still, the empirical evidence is very tenuous; we have just begun to uncover the pieces of the puzzle concerning what learners do to facilitate the process of learning and using grammar structures. What we know hardly provides a basis for sound pedagogical proposals. This is unfortunate because without being able to unequivocally identify GLS and measure their use, it is difficult to achieve progress in the remaining two areas of investigation that I discuss below. More precisely, we cannot seriously contemplate making definitive claims about how GLS use is related to attainment, ID factors or contextual variables, and it poses a major challenge to establish the value of intervention in GLS since comparisons between initial and end states are beset with difficulties. This does not mean that such attempts should not be made with the tools that we do have at our disposal, but we must be aware of their limitations.

For reasons spelt out above, identification and measurement of GLS should come at the top of the research agenda but several key issues should be kept in mind when confronting these tasks. First,

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there is a crucial difference between explicit and implicit, or at least highly automatized (Ellis, 2009; DeKeyser, 2010, 2017), knowledge of TL grammar and this distinction should be taken into account when tapping GLS. In other words, as recognized to some degree in the definition I provided above, there is a major difference between understanding rules and employing them in controlled exercises with no strict time constraints and using TL structures in real-time communication. This must surely be reflected in the taxonomies of GLS and data collection instruments or we will overlook a crucial dimension of strategic learning of grammar.

Second, the available studies have relied on diverse classifications and data collection tools, which makes it extremely hard to compare the findings. In most cases, these have been adaptations of Oxford's (1990) taxonomy of LLS and her *Strategy Inventory for Language Learning* (SILL), which have not been designed to capture the specificity of learning grammar. An attempt to impose order on the field was made by Oxford and Lee (2007), who distinguished between strategies for implicit learning which includes a focus on form (i.e. aiding noticing TL features in communication, see Long, 1996), strategies for explicit inductive learning (i.e. helping rule discovery) and strategies for explicit deductive learning (i.e. assisting the process of understanding rules). This division, however, was never intended to be a complete taxonomy but, rather, to inspire future discussion and empirical work. I built on this scheme and created what represents the only comprehensive classification (Pawlak, 2013, 2018a) in which GLS are divided into four groups: metacognitive, affective, social, and cognitive. The last category includes strategies for: (1) aiding the production and comprehension of grammar in communication tasks, (2) developing explicit knowledge, (3) developing implicit knowledge, and (4) dealing with corrective feedback on grammar use. On this basis, I designed a research tool, the *Grammar Learning Strategy Inventory* (GLSI), comprising 70 five-point Likert-scale items. The investigation of the properties of the GLSI provided ample evidence for its validity and reliability (Pawlak, 2018a), and, to the best of my knowledge, it constitutes the only theoretically and empirically driven research instrument for collecting data on GLS. This is the reason why its use is suggested as a point of reference in the tasks proposed below. It should be kept in mind that the classification of GLS and the construction of valid and reliable instruments represent work in progress, since other strategic devices may be identified, existing tools are not free from flaws, and they are not applicable to every single context. Additionally, even most meticulously designed inventories suffer from limitations, which must be kept in mind when designing studies and interpreting their results (Oxford, 2017).

Third, the bulk of the existing research has focused on university-level students, mainly those majoring in English as a foreign language, which severely limits its generalizability and usefulness. After all, as with LLS in general (e.g. Takeuchi, Griffiths, & Coyle, 2007; Pawlak, 2011a; Oxford 2017; Griffiths, 2018), GLS drawn on by advanced, older, and more cognitively mature students are likely to differ greatly from those used by less proficient learners in different types of schools, as well as in contexts where grammar teaching is not the main priority (e.g. CBI). Clearly, it is such individuals and not English majors who represent a majority of language learners.

Fourth, most of the studies conducted to date have focused on GLS used by learners of L2 English, which is understandable given its role in international communication but yet again reduces the generalizability of their findings. Even if we assume that many GLS are universal (e.g. planning, paying attention to what interlocutors say) and can be employed when learning the grammars of different TLs, the distinctive features of those grammars may also necessitate the application of very specific strategies, as Cohen, Pinilla-Herrera, Thompson, and Witzig (2011) showed designing a strategy website for Spanish grammar. This indicates that while generic instruments such as the GLSI can provide valuable insights into strategy use, there is a need to develop language-specific inventories to be able to better cater to the needs of various learner groups, also with respect to their first language (L1) backgrounds.

Fifth, there is merit in investigating differences in GLS use in a second, third or fourth language, an avenue that has only just begun to be explored (e.g. Haukås, 2015; Pawlak & Kiermasz, 2018). On the one hand, this could help us figure out how to assist learners in gaining control of the grammars of

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those languages, also taking into account their aims and motives, but, on the other, it could ultimately facilitate the task of creating language-specific inventories. Based on research on multilingualism (e.g. Mitits & Gavriilidou, 2015) or the theory of the ideal language self (e.g. Dörnyei, 2009b), interesting insights can be expected in this respect.

Sixth, reflecting to some extent predominant tendencies in the overall study of LLS, researchers have largely ignored the contextual, situated nature of GLS as they are employed in specific tasks (White, Schramm, & Chamot, 2007; Oxford, 2017). In other words, while it is still necessary to adopt a macro-perspective in exploring GLS, as seen in the administration of carefully designed tools to large populations, it must be augmented by a micro-perspective which would look into strategies employed in learning tasks. This is because major differences are bound to be seen, for example, between the use of different types of GLS in controlled exercises (e.g. paraphrasing sentences) and focused communication tasks, where the use of a grammar feature is prompted for successful task completion (Ellis, 2003).

Seventh, whatever theoretical stance is embraced as a justification, such as complex dynamic systems theory (e.g. Larsen-Freeman, 2016), as has been demonstrated with motivation (Dörnyei, MacIntyre, & Henry, 2015), GLS use is inevitably subject to change over time as a result of intricate interactions with other IDs and contextual variables. However, I am aware of only one study that has addressed the dynamic dimension of LLS (Cohen & Wang, 2018), and this investigation was not focused on GLS. There is a need to fill this gap. I believe that temporal variation in GLS is worthy of investigation, both over longer periods of time and with respect to the completion of specific tasks (cf. Oxford, 2017; Amerstorfer & Oxford, 2018; Oxford & Amerstorfer, 2018).

Finally, illuminating many of the issues outlined above may call for new research designs, procedures, and data collection instruments, but, perhaps even more importantly, this task may require adept integration of well-tried research procedures to capture different aspects of GLS use (e.g. questionnaires, interviews, narratives, think-aloud protocols). Oxford (2017, pp. 315–316) writes: 'Quantitative strategy questionnaires, if used at all, should not be analyzed using only simple frequency tabulations and traditional strategy categories (e.g. cognitive, metacognitive, affective), because this mode does not reflect the complexity of language learning and strategy use'. Even though I think that such downright rejection of traditional approaches is neither necessary nor warranted, Oxford's stance should alert us to the importance of combining a macro- and micro-perspective in GLS research, as my colleague and myself have done for willingness to communicate (WTC) (Mystkowska-Wiertelak & Pawlak, 2017).

The eight issues above provide a point of reference for the research tasks outlined below. They are mainly designed with the purpose of developing valid and reliable tools for tapping GLS in different contexts, extending our understanding of how these strategies are deployed in task performance, and ensuring that both the macro- and micro-perspective is represented in future research endeavours.

Research task 1

Design an instrument for measuring GLS use by secondary school learners.

As signalled above, most of the existing, scant research on GLS comes from studies of university students majoring in an L2, mainly English, who are required to achieve superior mastery of TL grammar. The results of such studies, however, cannot be generalized to other educational levels and the data collection tools may be inappropriate since L2 majors possess considerable knowledge about linguistics, language learning, and language teaching. Thus, there is a need to adapt existing instruments so that they become suitable for learners in other contexts. Learning an L2 at the secondary school level seems to lend itself perfectly to this task because, in most educational contexts, grammar constitutes an integral part of courses in foreign languages. The designed instrument should be non-language specific, thus ensuring applicability to a range of L2s, and it should take into account strategies for the development of explicit and implicit (highly automatized) knowledge. The points of

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reference could be the classification of GLS and the tool developed by Pawlak (2013, 2018a), which may have been designed for English majors but they are outcomes of a principled approach to the study of GLS and currently have no other published alternatives.

The first step could involve administering the GLSI to a group of secondary school learners, examining the scores for the different categories, subcategories, and specific items, and conducting interviews in which the understanding of the statements could be verified. The next step could entail using qualitative techniques (i.e. interviews, diaries) to identify strategies that may be useful in this group but were omitted in the GLSI. Then, the GLSI can be modified accordingly, which would involve scrapping, adding, or adjusting items but could also entail the inclusion of new categories, or, possibly, even constructing an entirely new research instrument. Subsequent administration of this newly developed instrument to a large number of secondary school learners would reveal patterns of GLS use.

Research task 2

Design a tool for tapping GLS use by learners of a foreign language other than English that could be used by learners representing different L1 backgrounds.

While reliance on metacognitive, social, affective, or motivational strategies, or, in more recent reconceptualizations, also on metasocial, metaaffective, or metamotivational strategies (Oxford 2011, 2017), is likely to be TL neutral, the use of cognitive GLS can be expected to be at least to some extent a function of the specificity of a given linguistic system, caused among others by the employment of different processing strategies (Pienemann & Lenzing, 2015). It is clear, for example, that learning English grammar poses quite different challenges from learning Spanish grammar, with the task being further compounded by the nature of the L1 as well as its similarity to the L2. The first step in the development of a language-specific instrument could be careful analysis of the descriptive grammar of the selected TL and relevant resources concerning linguistic typology or cross-linguistic influence (e.g. Alonso, 2016). These initial considerations could serve as a basis for the identification of specific strategies used by different groups of learners (e.g. at different educational levels) to develop explicit and implicit knowledge of TL structures through quantitative and qualitative procedures. For example, English learners of German could be asked to do a translation task necessitating reliance on a range of grammar structures. In the process, they could be requested to think aloud, which would be recorded, and, on completion of the activity, to respond to several Likert-scale items specifically designed to capture GLS used for translation (e.g. paying attention to word endings, making associations with similar forms in L1). The resulting inventory, possibly consisting of 5-point Likert-scale items, could be combined with the more general categories included in the GLSI to provide a fuller picture of GLS use.

Research task 3

Validate existing instruments for tapping the use of GLS.

The focus could be on the GLSI or the tools developed in Research tasks 1 and 2. The choice of the GLSI is justified as it is currently the only comprehensive tool for investigating GLS, it has been initially validated in the Polish context (Pawlak, 2018a) and, despite its shortfalls, holds much promise for revealing how learners tackle the challenges of L2 grammar. The instrument could be validated in a variety of settings, for example with English majors in countries other than Poland. Validity and reliability of the instrument can be determined by applying the procedures described by Dörnyei and Taguchi (2009), such as calculating correlations with similar tools (e.g. GLSI), determining test-retest reliability, or tabulating Cronbach alpha values for scales and subscales to obtain information about internal consistency reliability. Factor analysis could be undertaken to reduce the number of categories

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or identify new ones. On this basis, a final version of the instrument can be created and administered, either in pen-and-paper or electronic format, to large populations and then successive rounds of exploratory and confirmatory factors analyses can be undertaken.

Research task 4

Compare the use of GLS in grammar task performance in English and another TL.

Given the obvious limitations of any inventory, which may not capture all strategies that can be employed and cannot provide insights into how GLS are in fact applied in different situations, it is indispensable to complement a macro-perspective with a micro-perspective that would shed light on the mediating effects of a specific activity (e.g., predominant focus on form or meaning, planning time). It would also be insightful to uncover how these task effects are themselves mediated by the nature of the L2. Accordingly, the task is intended to illuminate situated GLS use, additionally providing insights into how their application may hinge on the demands of the learning task, the characteristics of a specific TL, the impact of cross-linguistic influences, the sequence in which the languages are learnt, and also motivational factors. The focus could be on different grammar structures, but the best option would be to target a specific feature in both languages (e.g. the passive voice). Two tasks could be designed in both TLs which place varying demands on attentional resources and working memory capacity. For example, learners could be asked to paraphrase sentences, which would mainly require reliance on explicit knowledge, or to describe a location on the basis of prompts, which would primarily call for the application of implicit (highly automatized) knowledge. Depending on the nature of the task, quantitative and qualitative data could be collected by means of Likert-scale items taken from existing inventories, think-aloud protocols, immediate reports, or recordings of interactions, which would allow identification of language-related episodes (LREs) in which learners discuss the grammar features used (Jackson, 2001). Comparisons between the two tasks and languages can considerably enhance our understanding of contextualized use of GLS with respect to different linguistic systems.

Research task 5

Investigate the use of GLS in a course in which English is a medium of instruction (EMI).

The use of GLS is relevant not only in different language courses but also in situations in which learners are trying to master content through the medium of an additional language. This is in line with the counterbalanced approach (Lyster, 2015, 2017), which shifts attention from content to form proactively (i.e. by means of noticing, awareness, guided practice, and communicative practice) or reactively (i.e. through teacher questions or CF). This task aims to explore the use of GLS in an EMI course, such as teaching statistics to Erasmus students. Such use could be operationalized in terms of the thoughts and actions that students engage in when deciding on the grammar structures to employ in order to effectively read and write up reports on statistical problems and to present solutions in class. Data could be collected towards the end of several classes by means of short narratives focusing on the activities done in preparation for the class, or as it was in progress. This could be complemented with interview data with selected students focusing on the ways in which they approached problems in comprehending, learning and later using grammar structures to discuss and describe statistical concepts.

Research task 6

Investigate changes in the quantity and quality of GLS use over time.

In line with the current trend to investigate the dynamics of ID variables, such as motivation, there is merit to exploring temporal changes in GLS use at different timescales, whether this happens within

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the framework of CDST or another paradigm (cf. Pawlak & Oxford, 2018). Apart from the study by Cohen and Wang (2018), which focused on fluctuations in the functions of vocabulary learning strategies, such research is basically non-existent, making this line of inquiry particularly appealing. The proposed task explores changes in the use of metacognitive, affective, social, cognitive, but also perhaps compensation strategies over longer periods of time. It can be tackled with the help of a mixed-methods approach in which data on GLS use would be gathered at several points in time, say at the beginning, in the middle, and at the end of a three-year B.A. programme for English majors, both with the help of the GLSI or another inventory, and qualitative data collection tools, such as interviews, narratives, or diaries. It is also possible to apply procedures developed to explore motivational dynamics, such as retrodictive qualitative modelling (RQM) (see Dörnyei, 2014), 'which has not been used with learning strategy research but there is every reason to try out this important approach' (Oxford, 2017, p. 316). This would involve examination of GLS at a particular point in time with a particular group of learners with the intention of revealing forces that have shaped this use and changes in this respect over time. Three stages would need to be followed: (1) identification of salient learner types, or archetypes, in regard to GLS use (e.g. frequent users of traditional GLS, moderate users of GLS aiding grammar learning in communication), (2) selection of students who best fit each archetype, and (3) conducting interviews with those students with the purpose of illuminating the forces and the dynamics mentioned above.

3. Identification of variables mediating GLS use

The investigation of factors influencing LLS use has always been one of the most prolific lines of inquiry. Researchers have focused among others on the moderating effects of age, aptitude, motivation, personality, learning styles, learning goals, culture, experience, or the language learnt (Takeuchi et al., 2007; Cohen, 2011; Oxford, 2011; Pawlak, 2011a; Oxford, 2017; Griffiths, 2018). They have also explored the role of proficiency, viewing it in two ways, as a Factor underlying LLS use and as an outcome of such use, detecting high positive correlations in both cases (e.g. Oxford, 2002; Anderson, 2005; Pawlak, 2011a). On the whole, however, the research findings have been mixed and contradictory. Studies conducted thus far also offer important lessons for similar empirical investigations of GLS: (1) correlational studies cannot account for cause-effect relationships, particularly in the case of proficiency, (2) findings may vary widely depending on how attainment is operationalized (e.g., self-evaluations, grades, examination scores), (3) the same can be said about ID factors as, for example, the theoretical model that is adopted for conceptualizing motivation determines the nature of the tools used, (4) there are ID variables that have not been examined (WTC being a good example), (5) little is known about the impact of moderating variables on LLS use in performing learning tasks (see e.g. Pawlak, 2018b for pronunciation strategies), and (6) while interactions between different factors are inevitable, such complexity has yet to be examined.

Empirical evidence concerning the impact of mediating variables on the application of GLS is scant, limited to a handful of studies focusing on proficiency, experience, educational background, gender, or age, with inconsistent findings (e.g. Tilfarlioğlu, 2005; Pawlak, 2009). This situation has to be remedied because without establishing a clear-cut link between GLS use and attainment, both with respect to TL grammar and more generally, doubts can arise about the rationale for pedagogic interventions. Even if a correlation is detected, the quantity and quality of GLS use are likely to be moderated by an array of variables, which may have a bearing on the effects of specific options in grammar teaching but also the outcomes of instruction focused on GLS. Oxford and Lee (2007), for example, point out that the fit between the instructional mode and GLS use may be a function of age, development stage, gender, L1, educational level, goals, and myriad ID characteristics. Oxford (2017, p. 246) underscores the role of learning style, which 'not only helps to shape learners' choice of grammar learning strategies, but … also influences learners' responses to the way grammar is presented in L2 classes and textbooks'. Arguably, research should primarily focus on variables that can be seen as most pertinent to GLS use, since, for example, attitudes will play a role irrespective of a skill

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or subsystem. Moreover, although designs singling out one or two variables are insightful, most revealing would be studies targeting conglomerates of factors, which would shed much-needed light on the complexity of GLS use. Combining the macro- and micro-perspective seems to be the most beneficial. With all these caveats in mind, I suggest two research tasks intended to probe into the mediating influences on GLS use.

Research task 7

Examine the possible links between – for example – GLS use, beliefs about grammar instruction, motivation, WTC, learning styles, and attainment.

This task is motivated by three considerations: (1) although research on moderating influences on GLS use is almost non-existent, the general literature on strategies provides evidence for the link between LLS and learner-related variables, such as motivation, learning style, or attainment (Takeuchi et al., 2007), (2) there are factors that have not been investigated in LLS research, some aspects of which may be relevant to GLS use, such as beliefs or WTC, and (3) recognizing the complexity of GLS use, more valuable insights can be derived from studies exploring interactions between multiple variables than those focused on single factors. The task represents a macro-perspective and needs to involve a large sample, (i.e. several hundred participants), who could represent different linguistic backgrounds (e.g. L1 Polish and L2 English). Data on GLS use could be collected by means of the GLSI or other questionnaires developed for this purpose (see Research tasks 1 and 2 above).

As for the remaining variables, the decision as to how to operationalize them would rest with researchers but I outline some possibilities: (1) proficiency could be equated with course grades, self-assessment or, whenever possible, scores on standardized examinations, (2) beliefs about grammar instruction could be tapped by means of the tool described in Pawlak (2011b) which concerns different aspects of FFI (e.g. introduction of grammar structures, syllabus type), or the inventory constructed by Loewen et al. (2009), (3) motivation could be conceptualized in terms of the L2 motivational self-system and tapped by a tool developed for this purpose (e.g. Ryan, 2009; Pawlak, 2012c), (4) WTC could once again be measured through a variety of instruments (e.g. MacIntyre, Baker, Clément, & Conrod, 2001; Peng & Woodrow, 2010) but I would opt for the *Willingness to Communicate Inventory* (WTCI), designed for the Polish context (Mystkowska-Wiertelak & Pawlak, 2017), and (5) learning style profiles could be determined by means of the *Learning Style Survey* (LSS, Cohen, Oxford, & Chi, 2001) or the *Inventory of Language Learning Styles* (ILLS, Griffiths, 2012). The instruments could be administered on paper or electronically and the data subjected to correlational analysis, multiple regression, or analyses of variance, the last of which would allow establishing directionality if some of the variables are designated as independent ones. Crucially, the analysis should not be confined to overall GLS use but probe deeper, taking into account specific GLS categories and different dimensions of ID constructs (e.g. different facets of motivation).

Research task 8

Investigate the mediating role of IDs in GLS use in the performance of a specific activity.

In contrast to Research task 7, this task adopts a micro-perspective, which recognizes the need to investigate strategic learning of grammar in a situated manner. The task is intended to provide insights into the mediating role of ID factors in GLS use in context and can be undertaken with students at different educational levels. It involves conducting an activity involving the use of one grammar feature (e.g. the passive) or a set of such features (e.g. the use of narrative tenses), which could require reliance on explicit knowledge (e.g. translation of parts of sentences) or implicit (highly automatized) knowledge (e.g. inventing a narrative on the basis of prompts). The task would be performed in pairs and the students would be matched, for example, for gender (i.e. males – males, females – females, males –

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females), proficiency (i.e. similar and mixed), learning styles (e.g. different degrees of extraversion and introversion, defined, for example, on the basis of the LSS), as well as motivation and WTC (i.e. high and low for specific subcomponents of the scales). Proficiency could be established on the basis of course grades, exam scores, self-assessment, or, if possible, performance on standardized tests, while the other variables could be measured by means of the tools mentioned in Research task 7. The data on GLS use could be collected on task completion by means of Likert-scale items (e.g. some of those included in the GLSI), open-ended queries or interviews, but it is also possible to use think-aloud protocols in the case of more controlled tasks and audio-recordings of interactions, which would enable analysis of LREs (see Research task 4 for an explanation). Determining the use of GLS for specific dyads would allow insights into how it is mediated by individual and contextual factors. While similar procedures can be employed in tasks where learners are not matched, it may be difficult to uncover consistent patterns of strategy use in such cases (Pawlak, 2018b).

4. Instruction in GLS

While research into GLS can be theoretically motivated and expected to offer insights into, say, how the application of strategies triggers automatization of declarative knowledge, as posited by skill-learning theory (DeKeyser, 2015), to my mind, it should be primarily pedagogically oriented, aiming to facilitate learning and using L2 grammar. In other words, empirical evidence emanating from studies focusing on GLS identification and those seeking to illuminate the role of mediating factors should serve the purpose of informing pedagogical interventions aimed to enhance adept use of these strategic devices. As the meta-analysis of 61 studies undertaken by Plonsky (2011) demonstrated, there is moderate support for the efficacy of SBI, with its effects being mediated by age, proficiency, educational level, the number and type of LLS, the duration of the intervention, learning context, or outcome variables. Although different models of SBI have been proposed, there is consensus that such instruction should comprise several indispensable stages, such as raising awareness of known LLS, presenting and modelling new strategies, providing copious practice opportunities, and fostering self-evaluation of LLS use and their transfer to new tasks (Chamot, 2005; Rubin, Chamot, Harris, & Anderson, 2007). Oxford (2017) highlights the importance of differentiation, paying attention to sensory preferences, cognitive style, proficiency, strategies that students currently use, their interests or goals. Chamot (2018), in turn, mentions the role of socioeconomic, educational and cultural background, personality, motivation, proficiency, or strategic knowledge. Additionally, I would argue that studies seeking to gauge the efficacy of SBI should not only look at changes in strategy use but also the extent to which such enhanced use translates into achievement, either in general or with reference to TL skills and subsystems, both in terms of explicit and implicit (highly automatized) knowledge.

When it comes to instructing students in the use of GLS, existing empirical evidence is scarce, limited to just a couple of studies. Cohen et al. (2011), for example, showed that learners found a website devoted to strategies for Spanish grammar, helpful and useful, whereas Trendak (2015) demonstrated that SBI targeting emphasis in English was effective for cognitive and memory strategies, with the beneficial effects being maintained over time. I believe that it is precisely because of this scant evidence that studies of instruction in GLS should be undertaken since there is no other way to verify whether the moderately positive effects of SBI, as shown by Plonsky (2011), apply to this subsystem. Moreover, I am convinced that what we do know about the benefits of SBI warrants training in the use of GLS, particularly in situations where a premium is placed on the mastery of grammar. In Pawlak (2019), I discuss principles of instruction in GSL targeting English majors, stressing the need to adhere to general principles of SBI. However, I also point to the role of making learners cognizant of the importance of using grammar structures in real-time communication, focusing on cognitive GLS, applying GLS to the structures being taught, devising strategic plans for problematic features, forging links between classes included in the program, and promoting an autonomous approach (Pawlak, 2016). Although these principles are intended for university students majoring in foreign languages, they are largely applicable to other educational levels and contexts. Still, the need for differentiation in

https://doi.org/10.1017/S0261444819000314 Published online by Cambridge University Press

SBI, even within a single context, should be emphasized (Chamot, 2018). Such considerations are reflected in the research task that I propose below.

Research task 9

Design a module comprising GLS instruction for university students majoring in a foreign language.

The mastery of grammar will always remain a top priority for students majoring in a foreign language who aspire to be professionals, working as teachers, translators or interpreters. At the same time, using grammar accurately, meaningfully, and appropriately (Larsen-Freeman, 2003) poses a daunting challenge, especially when it comes to real-time communication which requires reliance on highly automatized TL knowledge. Thus, this context is perfectly suited to gauging the efficacy of GLS instruction and the insights can be subsequently applied to other contexts in which the range of structures taught is narrower and superior mastery of these structures is given less weight. While there is little empirical evidence on the effects of SBI on GLS use, the meta-analysis conducted by Plonsky (2011) shows that SBI is largely beneficial and there is little to lose in undertaking it with learners for whom the mastery of grammar is a necessity. The intervention envisaged in this task should most beneficially focus on a single TL feature (e.g. passive voice) so that its outcomes can be reliably appraised, it should be spread over a longer time (e.g. one academic year), and it could be incorporated into regular grammar classes included in the programme (or other classes if no separate classes are allocated for teaching grammar). SBI should best be confined to cognitive GLS that are directly involved in learning and using TL grammar and it could broadly follow Chamot's (2005) *Cognitive Academic Language Learning Approach* (i.e. preparation, presentation, practice, self-evaluation, expansion, and assessment). GLS use could be tapped by means of the GLSI, journals, interviews, and open-ended questions answered on completing tasks used to assess the mastery of the targeted structure. Such tasks should elicit both controlled and spontaneous TL use with the purpose of measuring explicit and implicit (highly automatized) knowledge.

A questionnaire could be designed as well to assess students' autonomy in learning grammar. The GLSI, the tests and the autonomy questionnaires should be administered at least three times, that is before, during and after the intervention, while other data collection procedures can be used throughout the entire year. On the one hand, this would allow determination of the extent to which SBI results in more frequent GLS use, whether such increased use leads to greater mastery of the targeted feature, and whether it fosters autonomy in learning grammar. On the other, it would offer insights into the dynamics of GLS use and progress made over time. The findings could provide a point of reference for SBI for other groups in a variety of contexts as it is clear that strategic intervention at all times needs to be adjusted to the realities of a specific instructional setting (e.g., learners and teachers' beliefs, available time).

5. Conclusion

Cohen and Pinilla-Herrera (2010, pp. 63–66) wrote that '(…) various grammar forms are not just magically acquired, but rather their learning calls for conscious attention. (…) Thus, there really seems to be a role for supporting students in the systematic use of strategies for retaining the grammatical forms that they encounter and need in order to perform in the language'. I could not agree more with this assumption but I am convinced that we need to know much more about GLS than we currently do to be able to supply learners with well-tailored assistance of this kind. Accordingly, in this paper I have presented an agenda for future research endeavours in terms of identification and measurement of GLS, moderating influences on their use, and SBI targeting strategies for learning grammar. While the research tasks I have suggested by no means exploit all the possibilities of how our understanding of GLS can be extended, they offer vital signposts illuminating the directions in which future empirical investigations can be taken. It is important that such research be informed by latest

https://doi.org/10.1017/S0261444819000314 Published online by Cambridge University Press

developments in LLS studies in general but also move beyond them by recognizing the specificity of learning grammar and the corresponding need to develop new research instruments. At the same time, I think that we should be cautious not to fall into the trap of uncritically following the fashionable trends, or should I say passing fads, in LLS research such as the application of dynamic systems, fascination with the dynamism of strategy use, or claims that strategies cannot be assigned to predetermined categories. While such developments certainly allow us to see LLS in a new light and to grasp more fully the influences underpinning their use, future research into GLS should strive to adeptly combine the old and the new, judiciously capitalizing on the benefits of a macro- and micro-perspective.

Acknowledgements. This article represents a contribution to the project no. 2015/17/B/HS2/01704 (2016-2019) funded by the National Science Centre, Poland.

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Cite this article: Pawlak, M. (2020). Grammar learning strategies as a key to mastering second language grammar: A research agenda. *Language Teaching*, *53*(3), 358–370. https://doi.org/10.1017/S0261444819000314

https://doi.org/10.1017/S0261444819000314 Published online by Cambridge University Press