

Conceptualizing Competing Language-Processing Pressures for L2 Learners

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ABSTRACT: 本論の前半では言語学習者がコミュニケーション・タスクを行う際に直面する認知処理上の pressures について検討する。これらの pressures を説明する上で Levelt (1989) の言語処理モデルを用い、その pressure が学習者の短期記憶容量に負荷をかける過程を見る。特に、課題に集中可能な間に受ける負荷により、学習者は自然に言語形式より先に意味伝達を優先するようになる。この傾向が問題となるのは、学習者が言語発達の上で中心となる syntax に気づかないためである。

本論の第2部では「Focus on form 理論」(Long1991)を検討する。この理論の主張は、「学習者は自ら気付く言語のみを身につける」というものである。Focus on form の提案者たちは、レッスン中のある時点で学習者を言語形式に集中させる必要がある、と主張する。最後に本学人間科学部の英語教育プログラムを検討し、タスクワーク時における学習者の処理 pressure の緩和および学習者が言語形式を明確に認識するために行われてきた取り組みについて議論する。

Key words: task-based learning, attentional capacity, processing pressure, focus on form, noticing, pre-task planning, online planning, integrative planning.

1. Introduction

In 2005, a task-based language-learning program was implemented at the Sekiya campus of Osaka Shoin Women's University. Despite still being new to Japanese language education, task-based learning is currently a dominant language learning approach used around the world (see Kumaravadivelu 2006a). This does not mean that it is not without criticism, and, undoubtedly, the key controversy in task-based learning revolves around the requirement that meaning takes priority over language form (Willis, 1996; Prabhu, 1987; Nunan, 1989, Bygate, Skehan, and Swain, 2001; Ellis, 2003; Nunan, 2005). Nunan's (2005) definition highlights the primary role

meaningful language use plays in task-based learning:

My own definition is that a pedagogical task is a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is primarily focused on mobilizing their grammatical knowledge in order to express meaning, and in which the intention is to convey meaning rather than to manipulate form (4).

While it is beyond the scope of this paper, the central theme in this definition is that language acquisition is best activated when learners are using language in meaningful or 'real-

world' ways. However, this also means that learners are prioritizing fluent language use over accurate and complex language use. The obvious problem with this orientation is that like with communicative language teaching before it, task-based learning predisposes learners to ignore deeper syntactical processing. The problem becomes more acute with beginner language learners who must work with a limited attentional capacity (short-term memory capacity) that is almost wholly preoccupied with communicating and comprehending language content. From a cognitive processing perspective, this paper will provide the reader with a basic understanding of the pressures that language learners face when engaged in communicative task work. The concept of focus on form (noticing), which is seen as one pedagogical solution to the above problem is also reviewed. In concluding the paper, a number of classroom pedagogical options that have been employed in the new language program to address the above processing problem are reviewed.

Levelt's first-language speech model (1989; see de Bot 1992 for an adapted bilingual version) has become a key explanatory model in the research of task-based planning and performance. This in an interesting point, considering that it is not a second-language model, and does not explain how second-language acquisition occurs through language production. Nonetheless, Ellis (2005:15) attributes its popularity in task-based research (e.g. Bygate, 2001; Bygate and Samuda, 2005; Ellis and Yuan, 2005; Sangarun, 2005; Skehan and Foster, 2005; Tavakoli and Skehan, 2005) to its descriptive potential to highlight the processes of production and provide clear hypotheses of how task characteristics and planning options can influence task performance.

Levelt's model (see figure 1.1) includes three overlapping, simultaneous, but autonomous processing components: *conceptualisation*, *formulation* and *articulation*. Each processing component produces a specific type of input and output. As Levelt (1989: 8) notes, 'the output of one component may become the input for another'. The first component deploys the *conceptualiser*, which is activated by an intention to talk. This intention initiates what Levelt calls *macroplanning*, which involves selecting communicative goals, and then identifying speech acts to actualise the goals. The next step is *microplanning*, which comprises 'the informational perspective of the utterance, its topic, its function, and the way in which it would attract the addressee's attention' (Levelt 1989: 5). At the end of this stage, there is a non-linguistic 'preverbal message', which is now available as input for the formulation.

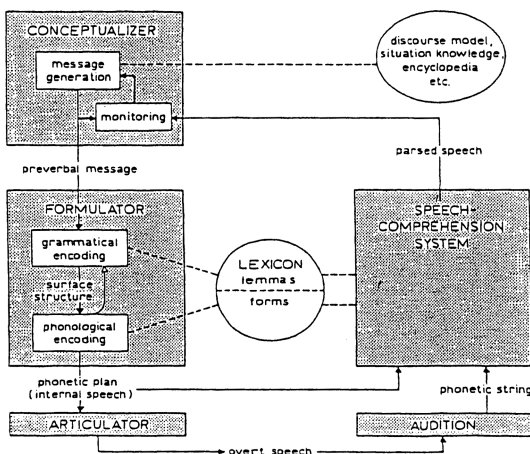


Fig. 1.1

stage.

Formulation, as Levelt (1989: 11) writes, ‘translates a conceptual structure into a linguistic structure’. To accomplish this, two types of encoding occur. The first is grammatical encoding. It consists of procedures whereby a lexical item is retrieved, accompanied by its ‘lemma’ (meaning and syntax). This retrieval, moreover, triggers syntactic-building, and produces a ‘surface structure – an ordered string of lemmas grouped in phrases and subphrases of various kinds’ (Levelt 1989: 11). After the strings have been foregrounded, phonological encoding produces a phonetic plan, which is the ‘internal speech’ of how the utterance should sound.

At the articulation stage, the phonetic plan as input or what (Levelt 1989: 27) calls ‘neuromuscular instructions’ is converted into physical speech, with its stress, intonation, and rhythm. Lastly in Levelt’s model, at all stages, self-monitoring occurs through the adjoining ‘Speech-Comprehension System’. The system is comprised of three subsystems that monitor the autonomous stages described above. The monitoring in the conceptualising stage checks whether or not the preverbal message is consistent with the original intention to communicate. The second monitor examines the internal speech in the formulation stage before it becomes articulated speech. The third subsystem inspects the oral production.

Levelt’s model is a description of first-language processing, but it is an invaluable

model for understanding the problems that language learners with limited processing capacity face when trying to process language. In relation to task performance, it offers a model for explaining how methodological options like pre-task planning, on-line planning, and task repetition may relieve some of the different processing pressures at the conceptualisation and formulation stages. Levelt’s model demonstrates that the conceptualiser and formulator simultaneously process two different types of information needed for language production – the former, rough content, and the latter, specific syntax. It needs to be noted that in relation to the articulation stage or articulator, Bygate & Samuda (2005: 43-44) recognize that while this stage poses potential processing pressures for the learner; nonetheless, most of planning procedures for pronunciation are ‘heavily automated’ and do not sap attentional capacity like the other two processes.

For learners operating with a limited attentional capacity, the pressure of doing both *conceptualising* and *formulating* forces them to prioritise one type of processing over the other. VanPatten (1990, 1996, 2002) has demonstrated that a language learner’s natural tendency is to process meaning at the expense of form, and that overall processing for meaning is ‘capacity robbing’ (VanPatten 1994: 28). This lack of capacity means that learners will have very few cognitive resources to attend to the grammar of the content. In relation to language production, Skehan (1998) argues that learners faced with real-time communicative demands will usually rely on mem-

ory-based language (memorized language chunks) and communication strategies at the expense of 'deeper' rule-based language processing. Skehan believes that this bypassing of syntactic processing leads to language fossilization. Regarding the tension between meaning and form in the classroom, Samuda (2001: 119) rightly recognizes it as one of the 'enduring challenges' in language learning. Over the last 20 years, the concept *focus on form* (noticing) has emerged as the key pedagogical option for overcoming the inherent learner bias towards fluency during communicative tasks.

Schmidt (1990, 1994, 2001) in his Noticing Hypothesis argues that second-language acquisition is dependent upon what students consciously attend to, or 'notice', in language input. The pedagogical concept of *focus on form* (Long, 1991; DeKeyser, 1998; Doughty and Williams 1998b; Long and Robinson 1998; Doughty, 2001; Ellis, 2001) is a classroom actualization of Schmidt's noticing. Ellis (2005: 9) writes that focus on form refers, 'to the mental processes involved in selective attention to linguistic form while attempting to communicate'. The importance of focus on form (noticing) in the classroom is evident in the fact that Skehan (2002) views it as the first key process in interlanguage development. Focus on form also entails learners 'noticing gaps' (e.g. Schmidt and Frota 1986; Swain 1995) between their own production and the input they are exposed to. Schmidt views conscious attended learning as superior to unattended learning (for criticism of conscious attention, see Carr and Curran 1994; Tomlin and Villa 1994; Gass 1997). The theoretical

underpinning of focus on form is that if the learner is able to notice gaps or new language, then he/she has the potential to internalise that language into their second-language system. Overall, noticing is believed to facilitate the conscious and semi-conscious cognitive processes of *inferencing*, *structuring* and *restructuring* (see Kumaravadivelu 2006b: 50-3), which allow learners to access and internalise the target-language system. In recent years, Schmidt (2001: 3) has expanded his view on noticing to incorporate a variety of semi-conscious apparatuses, such as alertness, orientation, pre-conscious registration (detection without awareness) and selection (detection with awareness within selective attention). In summary, it is generally agreed (see Robinson 2003) that attention, whether it involves conscious awareness or not, is nonetheless vital for detecting and attending to input, which in turn is vital for language development. As well as Long's *focus on form* (1991), Rutherford's *consciousness-raising* (1987), Sharwood-Smith's *input enhancement* (1991) and VanPatten's *processing instruction* (1996) are all pedagogical practices that emphasise the role of attention in meaning-based language learning.

Pedagogically, focus on form has three interrelated cognitive processing elements concerning its effectiveness to facilitate language acquisition: *Noticing*, *Interruption*, *Timing* (see Doughty 2001: 228). The first aspect, *noticing*, which was discussed above, concerns whether or not learners have the short-term memory capacity to simultaneously hold representations in their memory of both their interlanguage and the target language, and,

thus, notice holes or gaps between the two. Learners with a sufficient level of language competence in the L2 language are able to do much of their own noticing, but in the case of beginners, significant teacher direction/intervention is needed to direct or shift student attention towards form during a task-based lesson.

The second processing element involves whether or not focus on form should be integrated with meaning, and function focus. In other words, a strong integrative position insists that meaning, function, and form should occur simultaneously. With this position, it is contended that focus on form should occur incidentally, and not be interruptive to the point where potential meaning, form, and function ‘mappings’ are undermined (see Doughty 2001; Robinson 2001; DeKeyser 2005). Larsen-Freeman (2003) also makes a strong argument for why all three need to be processed together to facilitate effective acquisition. Lightbown (1998) is a proponent of a holistic approach to focus on form, or what she calls ‘continuous integration’, and opposes the traditional separation of language instruction and language use. The original concept of focus on form (Long 1991) corresponds with Lightbown’s (1998) position. Lightbown believes that traditional separation between meaning, form, and use is one reason why traditional approaches of teaching have been ineffective in promoting acquisition. She notes that separation is a ‘self-fulfilling prophecy’, in that learners learn to view ‘language instruction separate from language use’ (191). Lightbown further suggests that rules learned

in a grammar context maybe difficult to remember in a communicative context. The final argument for an incidental and non-interventionist focus on form is that it allows learners to do their own noticing, which, according to Jensen and Vinther (2003: 382), enables them to make their own decisions about what they are developmentally ready to acquire. This is seen as more advantageous to the learner, as opposed to a teacher-imposed external syllabus (see Pienemann’s 1998 Teachability Hypothesis). However, it remains unclear when learners have enough L2 competence to make their own developmental decisions.

The third element concerns when the timing of pedagogical focus on form intervention is most effective. Doughty (2001) presents four basic models for focus on form intervention timing:

1. Simultaneous, implicit attention to forms, meaning, and function at precisely the time when the learner need arises;
2. Implicit or explicit attention to forms shortly in advance of learner need arising;
3. A brief, implicit or explicit shift of attention from meaning and function to forms at precisely the time when the learner need arises;
4. Implicit attention to forms immediately contingent upon the evident learner need (249).

The first model is the one most consistent with Long’s (1991) view that focus on form

should arise incidentally in conjunction with meaning and function focus so that strong cognitive mappings of the three can occur. The second model (see DeKeyser, 1998) theorizes a longer *cognitive window* for learners, and, consequently, sees focus on form as ideal in advance of a communicative activity. In this model, focus on form is geared to ‘expectation for’ and ‘explicit orientation to’ language forms (Doughty 2001: 251). The third model parallels the first model except for the deliberate attempt to manage attention on form through teacher ‘precasting’ and ‘conversational interweaves’. These are techniques where the teacher deliberately incorporates a specific target into his or her speech with the purpose of getting the students to implicitly notice or incorporate the target into their current task work. (see Samuda 2001). The fourth model is mostly associated with ‘recasting’ of learner errors (Doughty & Varela 1998). The rationale for the fourth being that if recent verbatim speech remains activated in memory then there is the potential to promote cognitive comparisons facilitated through recasting. This fourth model corresponds with a discursual focus on form, and also includes pairs or groups of learners collaborative dialoguing with each other to facilitate modified output (see Donato 1994; Swain and Lapkin 2000, 2001). In summary the key differences between the four models can be reduced to four basic continuums: *proactive* – *reactive*; *explicit* – *implicit*; *sequential* – *simultaneous*; *obtrusive* – *unobtrusive*.

Despite the potential benefits of focus on form intervention, there are still structural

limitations to what learners can notice on their own. Namely, the noticing of meaning-form relationships is also heavily influenced by the structural variables of the mappings themselves. From the psycholinguistic perspective of the learner, these variables translate into what DeKeyser (2005: 3) calls the ‘transparency’ of various meaning-form relationships. According to DeKeyser (2005: 8-9), transparency is determined by three factors: opacity (the amount of meaning-form correlation), optionality (the alternating presence or absence of an element in the presence of the same meaning) and redundancy (a certain form is not semantically necessary because its meaning is expressed by another form). Added to the problem of transparency is the level of frequency of meaning-form mappings (N. Ellis 2002, 2003, 2004). Although beyond the focus of this paper, the above issues relate to the question of ‘what’ learners are able to notice without direct pedagogical intervention (see Gass 2004).

To date focus on form still lacks sufficient research to completely justify the pedagogical claims. Swan (2005) points out that there is insufficient evidence to support the on-line hypothesis (integration position) of focus on form. The sparseness of research and resulting criticisms are not lost on the proponents of focus on form who recognized early that in relation to the on-line hypothesis there is uncertainty about whether or not simultaneous focus on form is more advantageous than a traditional sequential separation of form from meaning. Lightbown (1998: 194-195) goes so far as to layout when she believes such

separation is advisable. Recent research by Sangarun (2005) has demonstrated that learners who are directed to focus on both form and meaning during task planning, outperform learners who plan for one or the other. Despite a lack of research, focus on form is still clearly accepted as a key principle in second language pedagogy (see Kumaravadiveli, 2003; Ellis, 2005).

The original impetus for focus on form originated from the idea that learners work with a limited processing capacity that favors meaning at the expense of form. To remedy this bias, it is argued that learner attention must be directed to form during classroom task work in order to facilitate language restructuring. The descriptions of the four focus on form models (*simultaneous, at precisely the time, shortly in advance, a brief shift of attention, immediately contingent upon*) suggest that timing is of essential importance. However, the more central variable for which the different timing options are dependent upon is ultimately whether or not learners have the attentional capacity available to maximize different timing options. This vital point is something that Doughty and Williams (1998) both recognize as central to focus on form:

Thus the important pedagogical issue is not only whether learners pay attention to form but also how to get attentional allocation increased, because the more one attends, the more one learns. (Doughty and Williams 1998b: 249)

The main concern for teachers applying focus

on form is how to maximise attentional capacity or student short-term memory capacity so that learners have ability to attend to language form while primarily engaged in meaning focused task work. Skehan and Foster (2001) and Swan (2005) see task characteristics and task-implementation variables as possible solutions to the meaning and form tension.

Osaka Shoin Women's University English program, in contrast to adjusting task characteristics (Robinson 1995, 2001), has employed a number of methodological options to intentionally increase learner attentional capacity, and specifically focus student attention on language form. Methodologically, four types of learner task planning have been incorporated into classroom practice: pre-task/strategic planning, online planning (within task planning), integrative planning (task repetition), and post-task planning. Pre-task (strategic) planning is done before the actual task. Learners essentially plan what language they think might be necessary to successfully complete the task. This language foregrounding or planning can be teacher guided or unguided, in which the latter is mostly done independently by the learners themselves. Research has demonstrated (Foster, 1996; Foster & Skehan, 1996; Mehnert, 1998; Yuan & Ellis, 2003; Ortega, 2005; Sangarun, 2005; Kawauchi 2005;) that pre-task planning aids conceptualizing (rough content), and, moreover, eases learner-processing pressure at the actual task stage.

Online planning takes place during the actual task, or within the task, and simply involves allowing the learner sufficient time to think

about what they are saying or need to say. In pair work tasks, online planning almost occurs naturally as learners generally have time to think about their utterances while their partner is talking. Online planning aids formulation, or the processing of language form, and according to the research (Hulstijn & Hulstijn 1984; Ellis 1987; Ellis & Yuan 2003; 2005), the one characteristic of learners who are provided with sufficient online planning is a stronger orientation towards accurate language use.

According to Bygate and Samuda (2005), integrative planning benefits both conceptualization and formulation, because immediate task repetition is a combination of both pre-task planning and online planning. In the language classrooms at Osaka Shoin, students are regularly involved in doing immediate task repetition. Task recycling or repetition with different partners naturally involves reusing language. This foregrounded language thus frees up attentional resources that can be redirected to producing more accurate language or stretching one's interlanguage. Research by (Gass et al., 1999; Bygate, 1996; Lynch & Maclean, 2000, 2001; Bygate, 2001; Bygate & Samuda, 2005) show learner performance gains in fluency, accuracy, and in particular complex language use. Finally, there is the post-task planning based on Willis's (1996) model. This type of planning involves learners preparing a report either orally or written of the language they used in their task, which is then presented orally to the teacher and whole class for analysis. The central focus with this post task planning is primarily on language

form and getting the learners to notice holes or gaps in their interlanguage.

In summary, it has been reviewed that speaking primarily involves two key processes, conceptualization and formulation. The former builds rough content while the latter builds grammatical form. It was also explained that language learners operate with a limited attentional capacity that taxes their ability to process both at the same time. As a result of these competing pressures, learners when engaged in task work are oriented towards fluent language at the expense of more accurate language use. This is problematic because L2 acquisition is dependent upon an awareness of deeper syntactical structures. To address this problem researchers have advocated focus on form (noticing). As was briefly discussed there are a number of ways focus on form can be conceptualized in the classroom. At Osaka Shoin Women's University a number of task planning options have been implemented to ease learner-processing pressures. Besides the cognitive benefits, task planning has also been used to help our learners recognize that awareness of one's own language form is crucial to language development. From a pedagogical standpoint, the use of task planning to facilitate noticing is based on the idea that language classrooms need to achieve what Moser (2005: 84) calls the 'golden mean' of language learning. This means achieving teaching and learning balances that recognize the importance of focusing equally on fluency, accuracy, and complexity in the classroom. Future research and practical goals of the program at Osaka Shoin are to better understand the

influence of task planning options in the classroom, and, to furthermore understand how these options facilitate second language learning.

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