Theories of learning: Changing metaphors for the language learner

Alex Gilmore
University of Tokyo, Japan

Abstract

This paper examines some of the metaphors and models that lie behind the practice of English Language Teaching (ELT) and looks at the implications of these models on teaching methodology, syllabus design and student evaluation. Our increasing understanding of the language learner and learning processes, particularly from educational psychology, have provided insights into the unpredictable nature and complexities of second language acquisition. Our role as language teachers is to respond to these insights and adapt our approaches in ways that can maximize learning opportunities in the classroom.

1   Introduction

"NOW, what I want is, Facts. Teach these boys and girls nothing but Facts. Facts alone are wanted in life. Plant nothing else, and root out everything else. You can only form the minds of reasoning animals upon Facts: nothing else will ever be of any service to them."
Hard Times, Charles Dickens (1854)

Theories of learning throughout the world have traditionally been firmly rooted in 'transmission models', which, as in Dickens' portrayal of Victorian England in *Hard Times*, see learners as 'little pitchers […] to be filled so full of facts' (ibid: 5). The predominant metaphor here is of the learner as passive agent, an empty container waiting to be filled with the wisdom from an all-seeing, all-knowing teacher. This paper will critically examine this notion of the learner and will show how insights from educational psychology, psycholinguistics, and second language acquisition are all suggesting new and perhaps more useful metaphors for the learner. The implications of these changing views of both the learner and learning processes on teacher roles, syllabus design and evaluation in second language classrooms will then be assessed. It will be argued that effective language learning is more likely to occur when classroom practice is informed by empirically based theories of learning, rather than tacit conceptions of teaching/learning processes handed down from one generation to the next.

2   Transmission models of learning

 Much of what passes for teaching in conventional language classrooms has traditionally relied on transmission models of learning, where the teacher's role is to prepare and convey

information and the learners' role is to receive, digest and then act upon this information. This has served us well enough in the past; students have undoubtedly learned *something* in the class, and the roles and relationships assigned to teacher and learners have tended to be consistent with both our own educational experiences and with cultural expectations. This is particularly true in Asian countries with a strong Confucian tradition, such as China, Korea and Japan, which tend to emphasize hierarchical rather than egalitarian patterns of interaction and mimetic reproduction of teacher or textbook examples, followed by memorization (Jin & Cortazzi 2006; Wang 2006). The predominant role for students in this context is to listen carefully and learn; any attempts to actively engage with the teacher may meet with peer disapproval, as these notes from a Japanese student's participant observation research project illustrate:

What would happen if I broke this unspoken rule, and asked a question to the teacher during class? […] I asked a friend to check how the other students would act at the moment. For me, to ask a question to the teacher at the class was an extremely brave thing to do. I called up all my courage, and raised my hand. The friend told me that many students stared at me, looking very curious, even after the question was done. Some of my classmates came to me after class and asked, "What happened!?" or "What were you trying to do!?" (author's own data)

Transmission models are particularly well suited to non-native speaker (NNS) foreign language teachers (who often lack second language (L2) knowledge, proficiency or confidence) because they allow a large degree of control over the syllabus, classroom content and group dynamics, in addition to simplifying evaluation procedures. The syllabus, generally composed of lexicogrammatical items, can be comprehensively described and an attempt made to grade the language content from 'easy' to 'difficult' – all engendering the program with a certain level of 'face validity'. Because the content of each class is prescribed and controlled, teachers can ensure that they a) know the answers to questions, and b) have a thorough understanding of the language points likely to arise, and will not, therefore, lose face in front of their students. In the weak version of Communicative Language Teaching (Howatt 1984), a 'PPP' (presentation, practice, production) methodology is often adopted, where the target language is first explained and practiced in a controlled manner before students engage in 'freer practice', such as information gap or role play activities, when they are encouraged to incorporate the target forms of the lesson into their output. Evaluation at the end of the course will usually test the extent to which the grammatical or lexical items covered in the syllabus have been memorized or understood. The focus is often on comprehension or knowledge of language itself, rather than the ability to *use* the L2 appropriately or spontaneously in a given communicative context and there are obvious pragmatic reasons for this, associated with ease of evaluation.

2.1 Criticisms of the transmission model

Criticisms of the transmission model, at least as far as it is applied to foreign language learning, have come from a number of directions. Firstly, the notion of language acquisition as a linear, step-by-step, process is seen as lacking psychological validity, and has now largely been discredited in the fields of linguistics and psychology (Skehan 1996):

Learners do not acquire one thing perfectly one at a time. Rather, they learn lots of things imperfectly all at once, they forget things and their IL (interlanguage) is destabilized when a newly acquired item collides with a pre-existing item. (Nunan 1996: 370)

The PPP methodology assumes that language items covered in the curriculum are acquired as they are dealt with in the class, and can then be used as the foundations for more difficult forms. As Nunan points out, however, this seriously underestimates the complexity of acquisition processes. To take a relatively trivial example, junior-high school students in Japan might become familiar with the adjective 'big' at an early stage in their experience of

learning English, and quickly begin to associate it with the L1 word '大きい'. However, this would be just the beginning of a lengthy process towards full acquisition. They would need to discover that the correct pronunciation is not 'ビッグ', as it may be represented in katakana, but /bɪg/, omitting the final vowel sound. They might notice its position in the sentence immediately before a noun (similarly to Japanese but not French or Italian), although later they will need to learn that in English adjectives pile up in a specific order before nouns: 'beautiful big brown almond-shaped eyes'. As their education continues, they may be exposed to the word 'big' in different contexts and begin to appreciate that, beyond size, it can also mean older, important, ambitious, popular, enthusiastic, doing something a lot, or generous (Oxford Advance Learner's Dictionary). Some of these senses may also apply to the Japanese equivalent, but students will learn that there is no one-to-one match between the two languages: Japanese will allow '大きい声' and English will allow 'big fan', but the direct translations, 'big voice' and '大きいファン' are not permissible. Further exposure to the L2 may give students a sense of the register of 'big', which has a rather informal tone and will therefore tend not to occur in academic genres. They will need to begin to learn a range of near-synonyms, more appropriate for other contexts and registers, such as 'large', 'great' and 'major', and then understand how these lexical items collocate with different nouns:

	problem	amount	shame	man
large	?	√	X	√
great	√	√	√	√
big	√	√	X	√
major	√	?	X	X

√ = collocates; ? = questionable; X = does not collocate

Table 1: Collocation matrix for adjectives denoting size (McCarthy 1990: 12)

The fact that the acquisition process for even a single, high frequency adjective is so complex provides some insight into the difficulties students commonly face when learning a second language. It is clearly unrealistic to expect any language items to be acquired comprehensively after one attempt at presentation, production and practice in the classroom; in reality, meaning is built up gradually over numerous encounters with the target forms and takes place in an interlanguage system which is in a constant state of flux.

A second problem with the transmission model, based on a discrete-point syllabus, lies in the assumption that it is actually possible to grade language items along a cline from 'easy' to 'difficult'. This has its roots in L1 and L2 acquisition research, which sought to identify universal, fixed orders of acquisition for certain language features. Most well known in this avenue of investigation are the so called 'morpheme studies' of the 1970s, which hypothesized a 'natural order' for the acquisition of certain grammatical functions such as articles or verb inflections:

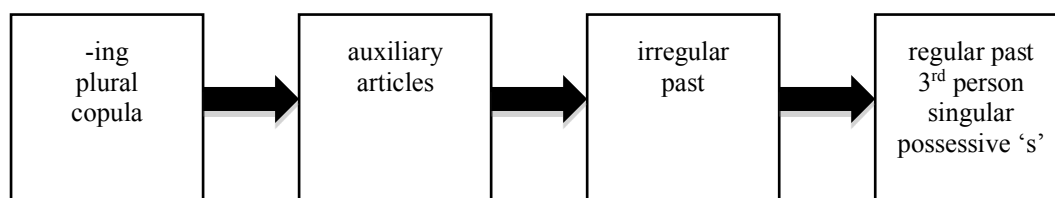| -ing plural copula	→	auxiliary articles	→	irregular past	→	regular past 3rd person singular possessive 's'

Figure 1: Proposed natural order in L2 acquisition (Krashen 1977, reproduced in Ellis 2008: 86)

Krashen's (1981) Input Hypothesis suggests that learners will progress along this natural acquisition order when the language input they receive is one step above their current stage of

linguistic competence. In other words, if a learner is at stage 'i', acquisition will take place if he/she receives (comprehensible) input of 'i+1'[i]. Even if we accept the existence of a natural order for L2 morpheme acquisition[ii], any attempt to organize a language syllabus solely around this concept is a gross oversimplification of the processes involved. Firstly, although common developmental sequences have been identified for certain grammatical sub-systems (such as tense/aspect, negatives, relative clauses and interrogatives), lexical or phonological development appears to be more idiosyncratic, affected by the nature of the input learners are exposed to, the learners' L1, and individual differences (Ellis 2008). Secondly, the grammatical system is only one small element in the development of a language learner's overall communicative competence (Gilmore 2007b). Current models locate syntactical knowledge within the linguistic component of communicative competence, itself only one of five types of competence identified:
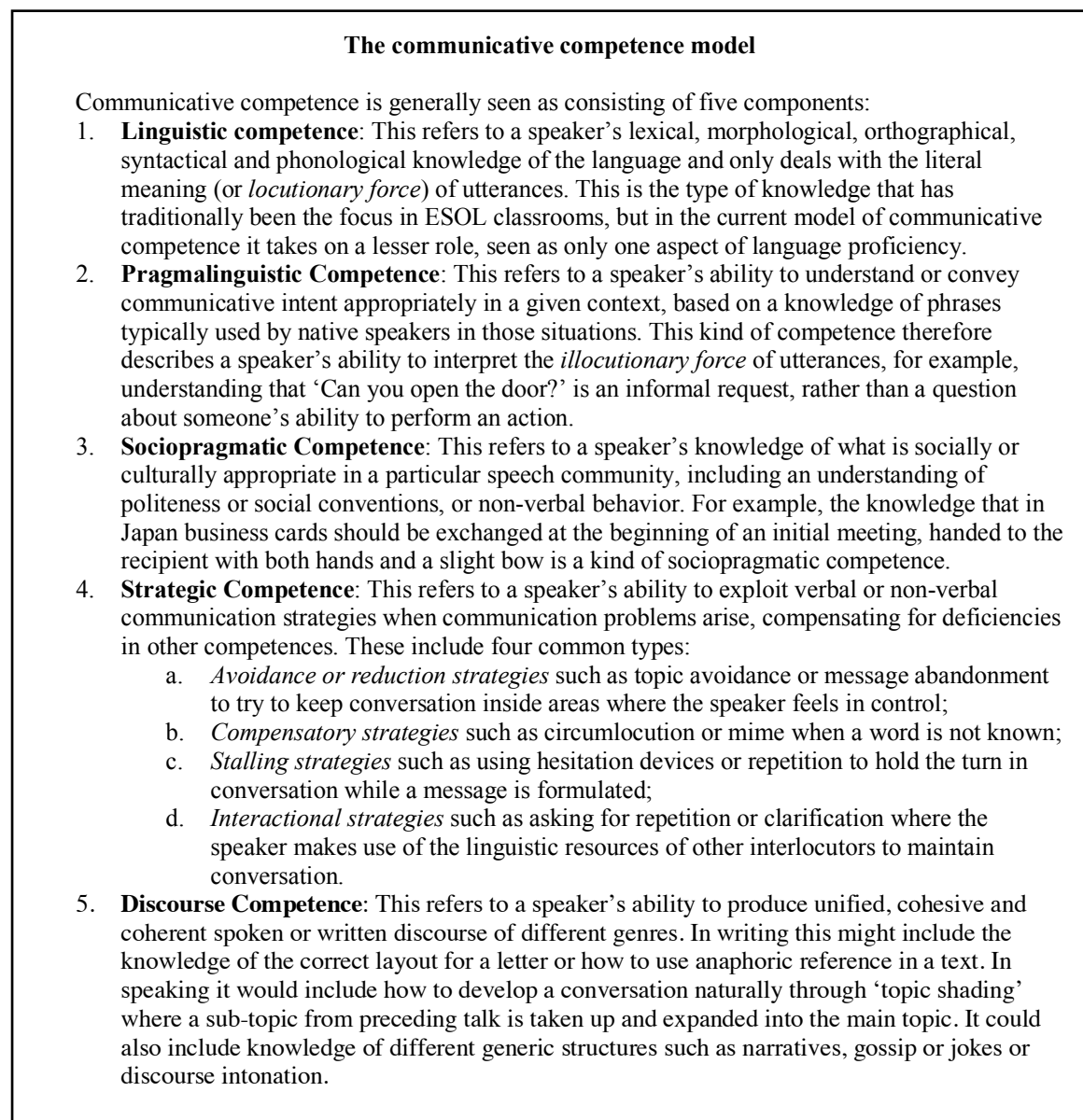

The communicative competence model

Communicative competence is generally seen as consisting of five components:
1. **Linguistic competence**: This refers to a speaker's lexical, morphological, orthographical, syntactical and phonological knowledge of the language and only deals with the literal meaning (or *locutionary force*) of utterances. This is the type of knowledge that has traditionally been the focus in ESOL classrooms, but in the current model of communicative competence it takes on a lesser role, seen as only one aspect of language proficiency.
2. **Pragmalinguistic Competence**: This refers to a speaker's ability to understand or convey communicative intent appropriately in a given context, based on a knowledge of phrases typically used by native speakers in those situations. This kind of competence therefore describes a speaker's ability to interpret the *illocutionary force* of utterances, for example, understanding that 'Can you open the door?' is an informal request, rather than a question about someone's ability to perform an action.
3. **Sociopragmatic Competence**: This refers to a speaker's knowledge of what is socially or culturally appropriate in a particular speech community, including an understanding of politeness or social conventions, or non-verbal behavior. For example, the knowledge that in Japan business cards should be exchanged at the beginning of an initial meeting, handed to the recipient with both hands and a slight bow is a kind of sociopragmatic competence.
4. **Strategic Competence**: This refers to a speaker's ability to exploit verbal or non-verbal communication strategies when communication problems arise, compensating for deficiencies in other competences. These include four common types:
    a. *Avoidance or reduction strategies* such as topic avoidance or message abandonment to try to keep conversation inside areas where the speaker feels in control;
    b. *Compensatory strategies* such as circumlocution or mime when a word is not known;
    c. *Stalling strategies* such as using hesitation devices or repetition to hold the turn in conversation while a message is formulated;
    d. *Interactional strategies* such as asking for repetition or clarification where the speaker makes use of the linguistic resources of other interlocutors to maintain conversation.
5. **Discourse Competence**: This refers to a speaker's ability to produce unified, cohesive and coherent spoken or written discourse of different genres. In writing this might include the knowledge of the correct layout for a letter or how to use anaphoric reference in a text. In speaking it would include how to develop a conversation naturally through 'topic shading' where a sub-topic from preceding talk is taken up and expanded into the main topic. It could also include knowledge of different generic structures such as narratives, gossip or jokes or discourse intonation.

Figure 2: Components of the communicative competence model (Gilmore 2009: 156)

The bias towards the teaching of grammatical elements in second language pedagogy reflects the preoccupations of one of its principle feeder disciplines, linguistics, where morphosynactic areas have been the primary focus of investigations since the early 1970s (Larsen-Freeman 1990):

Within much L2 theory and research the primacy of syntax has been taken for granted and the syntactic paradigm has been dominant. While phonology and other areas have not been ignored, second language learning has largely been described as a continuum of gradually complexifying syntactic systems.' (Schmidt & Richards, 1980: 142)

The first mistake made here was to allow the concerns of just one area of academic investigation to have an undue influence on the design of second language curricula, the second was to fall into the 'reflex fallacy' trap; assuming that just because particular language features *exist* they must also be *taught* (Timmis 2010: 63).

The final problem with attempts to itemize and grade second language input that I would like to mention here relates to the impracticality of establishing both a learner's current stage of linguistic development (the 'i' in Krashen's Input Hypothesis model) and also identifying what target language might be one step up in difficulty (or '+1'). With each L2 learner travelling on his or her own unique linguistic trajectory, precise assessments of language needs become increasingly difficult with rising proficiency and, although some attempts have been made to match grammar instruction to learners' developmental stages (Pienemann, Johnston & Brindley 1988), they have not proven very successful and have not been taken up by the wider language teaching community.

3 Constructivist models of language learning

Constructivist models of language learning differ markedly from transmission models in that learners are seen as *active agents* in the L2 acquisition process:

The main underlying assumption of constructivism is that individuals are actively involved right from birth in constructing *personal meaning*, that is their own personal understanding, from their experiences. In other words, everyone makes their own sense of the world and the experiences that surround them. (Williams & Burden 1997: 21)

Rather than an empty vessel, a more appropriate metaphor for the language learner within this framework is that of a scientist, forming and testing out hypotheses for the rules behind the language system from the input available, experimenting with meaning making and looking for signs of successful communication through the reactions of interlocutors. The development of learners' interlanguage (IL) is thus seen as highly idiosyncratic, shaped by what they already know about the L2, the nature of the input they receive, the 'noticing' encouraged through task design (Schmidt 1990; Batstone 1996; Skehan 1998), the way they appraise the value of the input with respect of their own goals and interests (Schumann 1997), and so on. In contrast to transmission models, which view acquisition as the stepwise mastery of 'accumulated entities' presented in the classroom (Rutherford 1988), constructivist models do not assume that language points are automatically incorporated into the developing IL system. Input may make it as far as a learner's working memory, if conditions for noticing in the classroom are right, and from there it can interact with, reshape or be shaped by, information stored in long-term memory in a process that Piaget termed 'assimilation' and 'accommodation'[iii] (Williams & Burden 1997: 22).

From the constructivist perspective then, what learners actually learn in the classroom is only partially determined by the instructor's choice of materials, task design, or presentation techniques. Each individual will take different things from the lesson, depending on the characteristics of their own developing IL system, needs, or interests - and exactly how that information becomes incorporated into their mental representations of the L2 will be shaped by their own unique processes of cognitive adaption (Bygate, Skehan & Swain 2001).

Within the constructivist framework, the teacher's role shifts from the relatively simplistic model of 'information provider', to something far more complex and nuanced. Rather than just being the source of knowledge in the classroom, the language teacher is seen as a

learning facilitator, who attempts to create the ideal conditions for L2 acquisition to take place (e.g. Doughty & Long 2003). This includes i) analyzing learners' needs or learning styles (e.g. Ellis & Sinclair 1989); ii) selecting 'rich input' (at the appropriate level for the students) which can meet the various needs identified; iii) designing tasks to encourage engagement with the materials and to enhance noticing of any target language; iv) being an information provider when students are unable to work out meanings/rules by themselves; v) setting up activities clearly and choosing the most appropriate interaction patterns (pair work, group work, whole class, etc.) to achieve the aims of the task; vi) monitoring students during the task to assess its effectiveness, to note any areas of difficulty and to pace the lesson appropriately; vii) providing feedback on the students' performance post-task and highlighting any common problems observed; viii) creating a positive learning environment in the classroom which encourages learners to both remain engaged with the materials, and to take risks and experiment with the L2.

Describing the syllabus also becomes more problematic and complex; the teacher may have specific learning goals in mind, but as far as the learners are concerned, the class might be 'about' something entirely different. As Bygate, Skehan & Swain (2001: 7) observe, 'Learners are perfectly capable of reinterpreting tasks, in such a way that the carefully identified pedagogic goals are rendered irrelevant as a learner invests a task with personal meaning'. Experienced teachers will often allow lessons to progress in unexpected directions, according to the interests and contributions of the learners, and in this sense the syllabus can only be described retrospectively (once the course has finished), and even then only in very vague terms since each learner will have created their own 'personalized syllabus' from the input and activities arising in the classroom. Evaluation of students' progress is difficult from the constructivist perspective - Do we assess the curriculum based on the intended content, as outlined in the syllabus description, or what actually arose contingently during the lessons? Do we assess those language items the teacher considered important, or instead the language points the learners themselves chose to focus on?

4   Sociocultural models of language learning

Sociocultural models of language learning view higher order cognitive functions as developing out of social interaction. They see learning as a process embedded in social events, rather than being something which takes place inside an isolated cognitive system. Within this perspective, learners are able to develop when they are working inside their *zone of proximal development* (ZPD); this occurs when the challenge of a task is just above the learner's level of competence and can only be achieved with the support of a 'knowledgeable other' or meditational tools (Lantolf 2011).
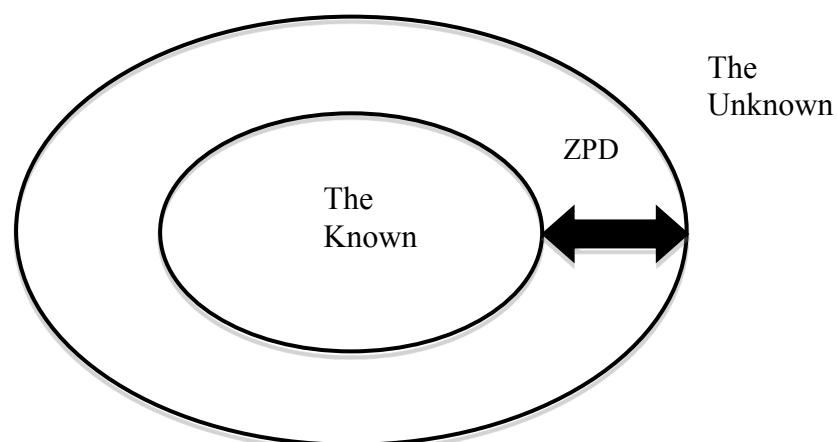
Figure 2: Representation of the Zone of Proximal Development (ZPD)

As learning takes place, the external mediation is gradually internalized until a point when it is no longer necessary; the particular skill or knowledge can then be considered part of 'the known' and is not in the ZPD. Vygotsky (1986) illustrated this mediation process in children with his Forbidden Colours Task. In this task, participants of different ages (4, 7 and 12-years old) are asked a series of questions and instructed to avoid using a specific colour in their responses (for example, they might be asked to describe their house, where the forbidden colour is white). Researchers provide pieces of coloured paper which can be used as external mediational tools for thinking if required. The 4-year-olds are unable to exploit the coloured paper and continue using forbidden colours in their responses; the 7-year-olds, however, place the paper with the forbidden colour on it close by to serve as a reminder and are able to successfully complete the task, with the help of the external mediation source. Finally, the 12-year-olds are able to successfully complete the task without the need for the coloured paper. In this example, only the 7-year-olds are working effectively inside their ZPD; for the 4-year-olds, the challenge of the task is too great, even with the support of the mediational tools, and they are unable to develop in this learning environment. For the 12-year-olds, the scaffolding (Bruner 1983) provided by the coloured paper is unnecessary, as the processes required to complete the task have already been internalized, and they too are unable to develop in these conditions.

An appropriate metaphor for the language learner from within Sociocultural Theory (SCT) would be that of a socially-bound scientist. Similarly to constructivist models, the learner is seen as forming and testing out hypotheses for the rules behind the language system from the input available, but the social context of learning and its role in mediating cognitive development is emphasized. Scaffolding can be seen as operating at both macro and micro levels in the classroom: at the 'designed-in' level, careful selection and sequencing of materials and tasks by the teacher helps to ensure that learners are operating within their ZPD, while at the 'interactional' level, teacher, students and mediational tools interact contingently, and in less predictable ways, to co-construct meaning (Hammond & Gibbons 2005).

The example classroom materials shown below in Figure 3, and the associated extract of student discourse generated from it, illustrate how these different levels of scaffolding can operate in practice. The materials, adapted from Quentin Taratino's film *Reservoir Dogs*, are designed to focus the learners' attention on important features of oral narratives, such as the obligatory parts of a story – <orientation> <complicating actions> <evaluation> <coda> (Labov 1972), the highlighting function of the present historic tense, non-verbal communication methods, and so on.

Figure 3: Example classroom materials illustrating macro-level scaffolding (Gilmore 2007a: 112–114)

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Telling Stories

A. What is happening in this picture?
1. What do you think the policeman is saying to the driver?
2. What is 'police procedure' in your country when a car is stopped? How do you think it is different in America?
3. What do people usually keep in their car's glove box in your country? How about in America?

B. Work in pairs & imagine you are policemen in America. Policeman 1 is going to tell a story to Policeman 2. Try to make your story as interesting and funny as possible, Policeman 2 should try to sound interested in the story. Here are the details:

- The other day, you stopped a suspicious car with an American man (called Chuck) and an oriental woman in it, the man was driving.

- You parked behind the car and approached it with your gun drawn.
- You walked round to the driver's side and pointed your gun at the driver and told him not to move.

  The driver replied, "I know, I know" but continued to move his right hand towards the glove box.

- You warned the driver again, saying you would shoot him if he didn't put his hands on the dashboard.
- The driver's girlfriend told him to listen to you and to put his hands on the dashboard.
- Finally, the driver put his hands on the dash but he was nearly shot by you!
- Chuck was trying to get his registration out of the glove box.

C. Write down your dialogue & practice acting it out in a natural way.

D. Now watch this scene from *Reservoir Dogs* (Quentin Tarantino). How was it different from your story? Think about:

(a) the different parts of the story
(b) the grammar patterns
(c) the vocabulary
(d) the intonation
(e) the body language

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At the macro-level of design, the task first contextualizes the story related in *Reservoir Dogs* both visually and descriptively, which encourages students to develop pertinent schemas and scripts (Schank & Abelson 1977) for the scenario of traffic violations in the USA, and also helps to activate key lexical items, such as *glove box*, *gun drawn*, and *dashboard*, arising in the follow-up listening activity. By designing the task in such a way that students are required to produce their own narratives first, they are encouraged to 'notice the gap' between their own L2 performance and that of native speakers in identical conditions. This attendance by students to their own generation of language, or 'auto-input' (Ellis 2008: 261), and its

subsequent comparison with a NS model is thought to enhance acquisition of intake (e.g. Schmidt & Frota 1986). At the micro-level, the following transcription of two Japanese students attempting the activity shown in Figure 3 illustrates how they cooperate together to create meaning from the task, exploiting the materials and an electronic dictionary as mediational tools:

S1, S2: Male students
US: Unidentified student in class
(…): Transcription remarks
[…]: Concurrent speech
italics: Japanese
bold: English translation

1 **S1**:   *ha he ho ho nani ni shiyoka* A piece of paper
        ha he ho ho what shall we do?
2 **S2**:   A piece of paper
3 **S1**:   *sou nanka omoshiroi hanashi wo tsukurashite morauyo*
        Yes I'll make an interesting story
4 **S2**:   *so omoshiroku shiyo omoshiroku naruka   konna shinkokuna kore ga omoshiroitte iunara*
        Yes let's do that make it interesting?   **I don't understand how we can make**
5   *ore wa rikai dekihin* we don't understand what why this is funny
        this serious story interesting
6 **S1**:   What do we now here it's my it's my it's my car (S2 laughs) I'm sorry and I want to ride ride
7   pato car once finish (pato car = patrol car)
8 **S2**:   (laughs) Oh really oh that's terrible
9 **S1**:   *Patokaate nihongo patroruka ka?*
        Is 'pat car' Japanese? Is it 'patrol car' in English?
10 **S2**:   *Ah pata* Patrol car [**S1**: Patrol car]
        Oh that's patrol car
11 **S1**:   (Checking dictionary) Be available patrol car *rashii chuuka*
                                 patrol car-ish or
12   Police car *no hou ga iissu*
        Police car would be better
13 **S2**:   Mm police car sq squad car
14 **S1**:   *nani sore* squad car
        What's squad car?
15 **S2**:   *iya soo ya issho ni kangaete*
        Can't we think about this together?
16 **S1**:   *Pair yaro*
        We're working as a pair aren't we?
17 **S2**:   Pair *detan yaro kangaetekure*
        If you're my partner please think of something
18 **S1**:   (Reading from the worksheet) B work in pairs
19 **US**:   *Omoshourokusuru*
        Are you making it interesting?
20 **S2**:   *sou sou sou*
        Yeah

In line 6, S1 suggests a quick solution to the task, imagining the driver of the car simply apologizing to the policeman and explaining that his driving misdemeanors stemmed from his desire to ride in a police patrol car – a suggestion rejected by S2 in line 8 with the evaluation 'oh that's terrible'. The emergence of the expression 'パトカー' in the discussion then initiates a series of turns from lines 9-14 where the two students negotiate with each other to arrive at a suitable English translation. They seem to be aware that, often, English loan words are shortened in Japanese (e.g. 'convenience store' becomes 'コンビニ') and this knowledge causes them to doubt (correctly in this case) the acceptability of 'pat car' in English. S2 suggests 'patrol car' as a better alternative, but S1 appears to be unsure and searches his

electronic dictionary for more information. His search yields an alternative expression, 'police car', which generates a final suggestion of 'squad car' from S2. S1 appears to want to search for more information about 'squad car' in his dictionary, but this is curtailed by S2's impatience to continue with the dialogue construction task.

Sociocultural Theory, similarly to constructivist theories outlined earlier, complexifies and problematizes the role of the teacher in the classroom. Central to this view of learning is the notion of students working inside their zone of proximal development (ZPD). In order to facilitate this, teachers need to ensure that they provide learners with appropriate levels of *challenge* and *support*, through both the design of materials and how those materials are exploited in the classroom. Mariani (1997) attempts to describe the learning consequences of varying pedagogic activities across the two dimensions of challenge and support:
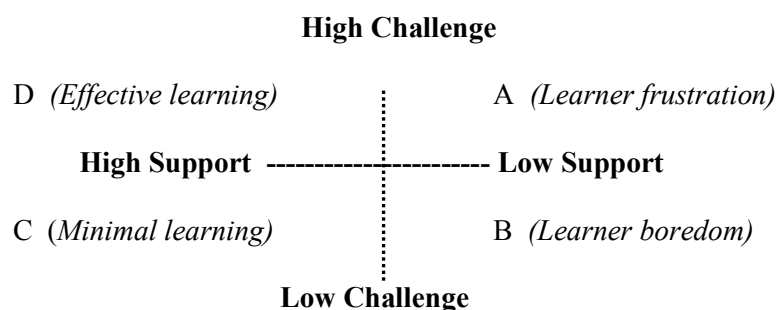
High Challenge

D *(Effective learning)*	A *(Learner frustration)*
High Support -----------------	**Low Support**
C *(Minimal learning)*	B *(Learner boredom)*

Low Challenge

Figure 4: Suggested learning consequences as a result of variations across the two dimensions of challenge and support (Mariani 1997)

If the challenge of a task is too high and the support offered too low (situation A in Figure 4), learners are likely to become frustrated; in this context the materials are beyond the students' current proficiency level and insufficient mediation has been built into the task to allow students to operate within their ZPD. If there is low challenge and low support (situation B), the materials do not provide students with any new information about the L2, and the lack of a sense of progress this causes is likely to result in feelings of frustration. With low challenge and high support (situation C), the teacher may offer students sufficient mediation but this is unnecessary because the level of the materials is too low, already inside the 'known' field of knowledge (see Figure 2). Students might appreciate the teacher's willingness to help them, but learning will be minimal since, again, they are not able to operate within their ZPD. The final combination, high challenge and high support (situation D) is the most likely to lead to effective learning. The level of the materials is above that which the students are able to cope with independently, but tasks are designed in such a way that, with the support provided, students are able to experience a sense of achievement and progress. Also similarly to constructivist models of learning, the content of classes, and the syllabus as a whole, are regarded as only partially describable. Regardless of a teacher's best efforts to plan and control the language content, exactly what students will actually *do* with the input is difficult to predict. As we saw above in the pairwork transcript between S1 and S2, the materials led to a discussion of the acceptability of 'pat car' and equivalent expressions in a way that would have been almost impossible to see in advance. Language teachers would be wise to embrace this unpredictability and to recognize events such as these in the classroom as learning

opportunities, periods of negotiation of meaning where input is likely to become intake. Students cannot be 'stuffed like a Peking duck' (Jin & Cortazzi 2006) when it come to learning the L2; all we can do as teachers is to try to create conditions where language acquisition can take place.

5 Conclusion

This paper has reviewed three models of language learning and the metaphors they suggest for the language learner: an 'empty vessel', a 'scientist', and a 'socially-bound scientist'. Our increasing understanding of learning processes, particularly through insights from cognitive and educational psychology, have complexified the business of language teaching and have removed many of the securities we were able to fall back on when learning was viewed simplistically as the transmission of knowledge. The language classroom as we now see it is a highly uncertain and unpredictable place; challenging, but also much more exciting than when it was seen merely as the site where little pitchers are filled so full of facts.

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[i] It is important to note here that Krashen himself does not favour grammatical sequencing of language input. Instead, he believes that acquisition (as opposed to learning) takes place when learners are exposed to comprehensible input, and when their focus is on meaning rather than form during natural communication.

[ii] Longitudinal, as opposed to cross-sectional studies, have not always concurred with these findings (see Ellis 2008: 110).

[iii] In applied linguistics, 'assimilation' refers to the way input is changed to allow it to fit in with what we already know, while 'accommodation' refers to the way the IL system is modified to take account of new knowledge. In other words, there is a dynamic and mutually dependent relationship between new and old information.