What are our tools really made out of? A critical assessment of recent models of language proficiency

Gabrielle Piggin

Abstract

This assessment of five influential models of language proficiency explores their comparative working definitions over the past 30 years. The following evaluation seeks to outline the underlying constructs of the dominant understandings of language proficiency from which high stakes decisions about tests and test takers are made. Additionally, it demonstrates how the literature has advanced from theoretical frameworks to interactional working models which take into account; contemporary language use, situational affective factors, individual test taker's internal processing, and the interactiveness which occurs between them. The discussion reiterates the importance of the continued questioning of how effectively tests measure the ambiguous construct of language proficiency and the necessity to query generally accepted assumptions of tests' value and validity.

Key terms: language proficiency; communicative competence; test taker; interactiveness; internal processing

Introduction

The conceptualisation of second language proficiency is undoubtedly one of the most crucial topics in the domain of second language testing and assessment (Canale & Swain, 1980; Canale, 1983; Spolsky, 1985; Bachman, 1990; Davies, 1990, Bachman & Palmer 1996; McNamara, 1996, Shohamy, 1998). The construct of proficiency has been the basis of various models and frameworks which have, to varying extents, affected both the practice of second language pedagogy and testing. As Taylor (2006) elucidates "teaching and testing depend heavily upon having well-described models of language use" (p. 58). The components of such models attempt to interpret the paramount question of "What does it mean to know how to use a language?" (Spolsky, 1985, p. 180). The definitive answer to how language proficiency can be defined and measured remains elusive and no general consensus has been reached. It is also imperative to recognise that any definition is necessarily antecedent to the measurement of proficiency tests for construct validity to be possible (Bachman & Palmer, 1996). As Bachman (1990) asserts, "construct validity concerns the extent to which performance on tests is consistent with predications that we make on the basis of a theory of abilities, or constructs" (p. 255). Therefore, construct validity must be based not only upon a theoretical framework but a working model which takes into account the interactiveness of cognitive and situational components./ it is essential that any working definition of language proficiency is critically examined as the decisions that are made based upon tests can change test takers' lives (Shohamy, 1998).

Tests are frequently used as the tool of measurement of a test taker's language proficiency. This is evident in the abundance of language tests which are available for test takers today. For example, Cambridge ESOL tests, IELTS, and TOEFL are all large-scale, influential, high-stakes, proficiency tests which are posited as providing "globally recognized certification of English language proficiency" (Taylor, 2006, p. 57). The requirement that there "must be a relationship between the language used on tests and that used in 'real life'" is nowadays generally the accepted view (Bachman, 1990, p. 356). Notably, such 'real life' communicative language is mostly based on 'inner-circle' varieties of English which are considered the 'standard' norms (Taylor, 2006).

In 1965 Chomsky asserted a view of language wherein language was a structure, and knowledge of that structure was 'competence' in the language (Canale & Swain, 1980). Subsequently, the fundamental work of Hymes in 1972 introduced the notion of 'communicative competence' "including not only knowledge of the language system but also knowledge of the appropriateness of language use depending on the communicative situation" (Hulstijn, 2006, p. 3). As Bachman (1990) notes the shift towards viewing 'language as communication', which has been reflected in the dominant communicative approach to

pedagogy in the language classroom from the 1980s, moves away from the Chomskyian idea of language as a formal structure. In the 1990's, further issues were included in the consideration of the implications of defining language proficiency such as the context of language use and individual test taker's characteristics; therefore the situational and affective factors of the individual test taker's performance on the test were more explicitly incorporated into proficiency frameworks/models (McNamara, 1996). These changes are reflected in the varying components of the following five models of language proficiency that have been proposed (amongst many others) over the past three decades and which will be considered and summarised in the next section.

A scope of proficiency

Over the past three decades since the seminal publication of Canale & Swain's (1980) framework of communicative competence, some of the terms and concepts which encapsulate language proficiency have become synonymous to some extent (Figure 1).
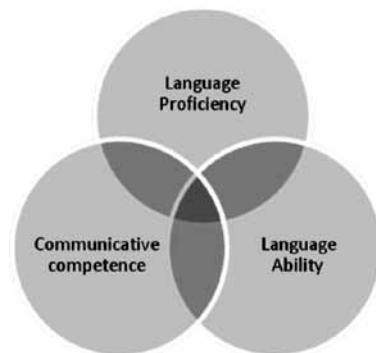
Figure 1: the overlap of terms describing L2 knowledge and use and performance

It can be acceded that proficiency is a construct, a psychological trait of cognitive ability (Bachman & Palmer, 1996), however the question remains; 'How do you accurately or adequately assess the invisible?' (Bachman, 1990). Language proficiency is therefore the unseen but is indexed to the test taker's performance and behaviours. The five perspectives presented in the following frameworks and models will be summarised to explicate how in fact this has been done by theorists. As we can see, each model has its own implications for the testing of language proficiency.

Models and frameworks of the proficiency construct

Canale & Swain (1980)

Canale & Swain (1980) proposed "a theoretical framework for communicative competence" to "examine its implications for second language teaching and testing" (p. 1-2). Their framework was influenced by Chomsky's definition of 'competence' and 'performance', and Hymes' encapsulating notion of 'communicative competence' which includes "not only grammatical competence (or implicit and explicit knowledge of the rules of grammar) but also contextual or sociolinguistic competence (knowledge of the rules of language use)" (Canale & Swain, 1980, p. 4). Canale & Swain's (1980) detailed paper provides an extensive background to the notion of communicative competence, the theories that underlie their framework, as well as their own research. Following an extensive literature review Canale & Swain (1980) assert the value of:

> an integrative theory of communicative competence [...] in which there is a synthesis of knowledge of basic
> grammatical principles, knowledge of how language is used in social contexts to perform communicative
> functions, and knowledge of utterances and communicative functions can be combined according to the
> principles of discourse.(1980, p. 20)

Apart from the notions of grammatical competence and sociolinguistic competence they also introduced the necessity to include strategic competence. As Canale & Swain (1980) state "no communicative competence theorists have devoted any detailed attention to communication strategies that speakers employ to handle breakdowns in communication" (1980, p. 25). They

considered "such strategies to be an important aspect of communicative competence that must be integrated with the other components in an adequate theory of communicative competence" (1983, p. 25). The framework presents communicative competence as having these three main components which were subsequently developed further in Canale's (1983) model.

Canale (1983)

Canale (1983) re-examines his and Swain's earlier position (1980) of communicative competence. He expands upon it in his "slightly revised theoretical framework" and discusses further relevant theoretical issues of the distinction between communicative competence and actual communication, as well as the nature of communication itself, while still exploring pedagogical and testing implications (Canale 1983, p. 3). As Canale & Swain (1980) denote, communicative competence "is composed minimally" of the three competences which make up their 1980 framework (p. 27). Therefore, Canale (1983) includes discourse competence as an additional constituent of communicative competence, which had been included as "the rules of discourse" in the sociolinguistic competence component in the 1980 framework (Canale & Swain, 1980, p. 30). In summary, the evolution of Canale & Swain's theoretical framework is represented in Figure 2.
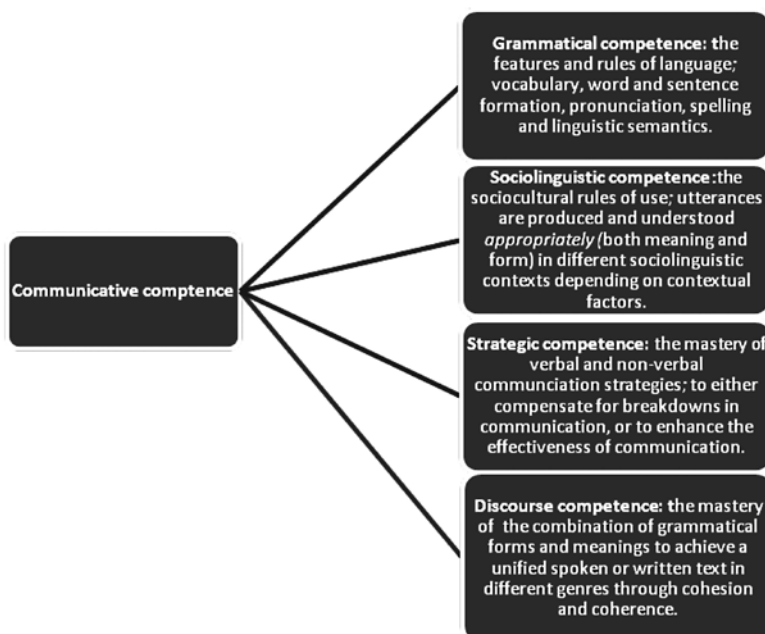
Figure 2: an outline of the communicative competence components of Canale (1983)

Canale himself laments that "the question of *how* these components interact with one another" has not been addressed in the framework as it is not a working model (1983, p. 12). However, Canale (1983) regards the theoretical framework as a "necessary step in constructing a model since the specification of how various sets of knowledge and skills interact and develop (a model) can only be as strong as the specification of these various competencies (a framework)"(p. 12). He also highlights the possibilities of future research programmes which may identify "the nature and interaction of different components of communicative competence" (Canale, 1983, p. 20).

Bachman (1990)

Bachman (1990) explicates his framework as an initial response to the call for testing specialists to incorporate "a theoretical framework of what language proficiency is with the methods and technology involved in measuring it" (p. 81). The framework

stems from Bachman's (1990) belief that appropriate language tests must be grounded in "clear definitions of both the abilities we wish to measure and the means by which we observe and measure these abilities" (p. 81). He expands the notion of communicative competence to that of communicative language ability (CLA) which "attempts to characterize the processes by which the various components interact with each other and with the context in which language use occurs" (Bachman, 1990, p. 81).

This framework consists of three main components; language competence, strategic competence and psychophysiological mechanisms, and illustrates the way these competences interact "with the language use context and the language user's knowledge structures" (p. 84). Language competence significantly details two sub-components; organizational competence, which includes grammatical competence and textual competence, and pragmatic competence, which itself includes illocutionary competence, and sociolinguistic competence (Bachman, 1990). Overall, CLA is described "as consisting of both knowledge, or competence, and the capacity for implementing, or executing that competence in appropriate, contextualised communicative language use" (Bachman, 1990, p. 84).

Bachman & Palmer (1996)

In 1996 Bachman & Palmer introduced "a model for describing the characteristics of the language users, or potential test takers" outlining their primary interest in considering language ability within an interactional framework for language use, specifically that of test performance (1996, p. 61). The interactional model is based upon the individual language user/test taker's characteristics which includes topical knowledge, affective schemata, personal characteristics, and language ability (Figure 3). Language ability subsumes strategic competence (presented as metacognitive strategies) and language knowledge. Language knowledge is constituted of two sub-components; organizational knowledge (grammatical knowledge and textual knowledge), and pragmatic knowledge (sociolinguistic knowledge and functional knowledge (formerly illocutionary knowledge in the 1990 model)) (Bachman & Palmer, 1996).
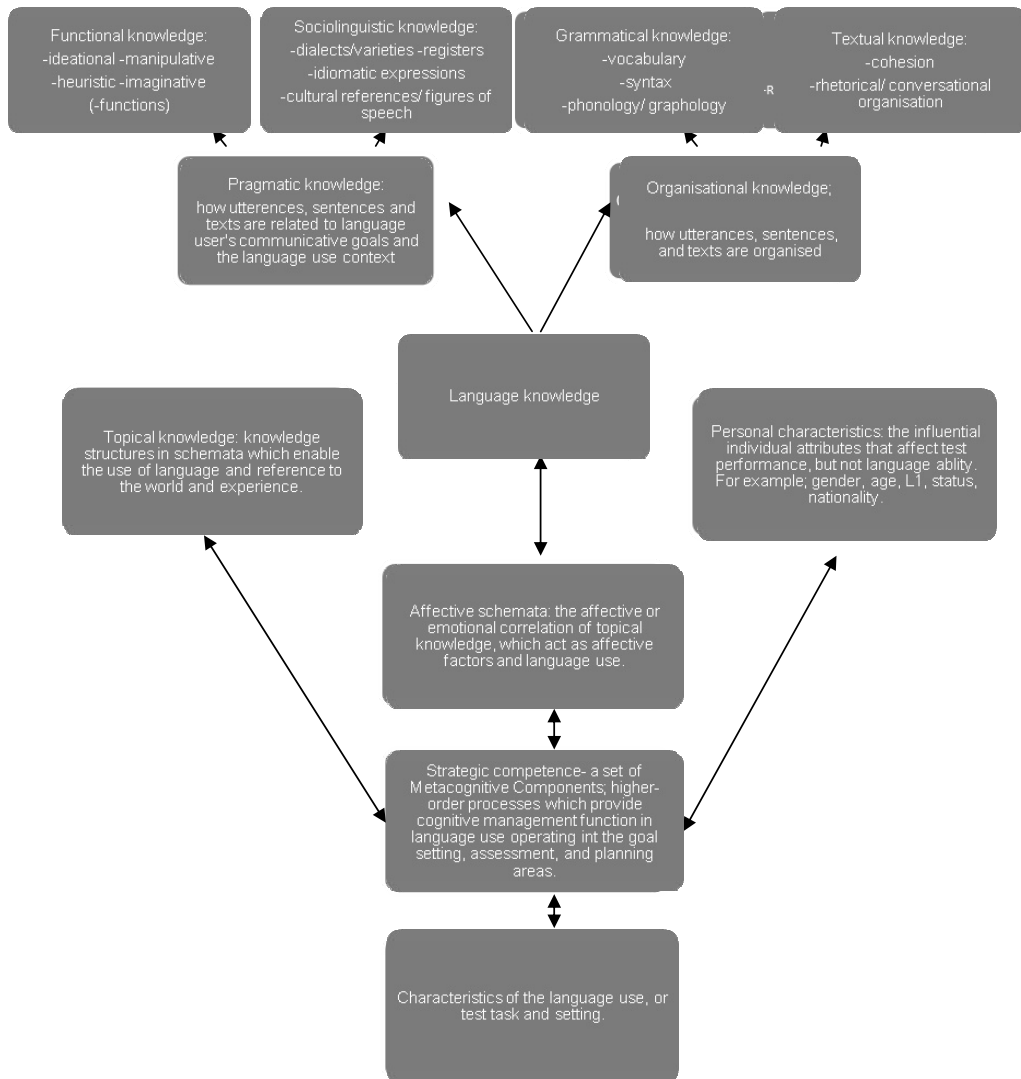
Functional knowledge:
-ideational -manipulative
-heuristic -imaginative
(-functions)

Sociolinguistic knowledge:
-dialects/varieties -registers
-idiomatic expressions
-cultural references/ figures of
speech

Grammatical knowledge:
-vocabulary
-syntax
-phonology/ graphology

Textual knowledge:
-cohesion
-rhetorical/ conversational
organisation

Pragmatic knowledge:
how utterences, sentences and
texts are related to language
user's communicative goals and
the language use context

Organisational knowledge;

how utterances, sentences,
and texts are organised

Language knowledge

Topical knowledge: knowledge
structures in schemata which enable
the use of language and reference to
the world and experience.

Personal characteristics: the influential
individual attributes that affect test
performance, but not language ablity.
For example; gender, age, L1, status,
nationality.

Affective schemata: the affective or
emotional correlation of topical
knowledge, which act as affective
factors and language use.

Strategic competence- a set of
Metacognitive Components; higher-
order processes which provide
cognitive management function in
language use operating int the goal
setting, assessment, and planning
areas.

Characteristics of the language use, or
test task and setting.

Figure 3: language ability components in Bachman & Palmer's (1996) model of language use in language tests

TOEFL 2000 Committee of Examiners (COE) Model Chapelle, Grabe, & Berns (1997)

The COE Model (1997) is an explicit framework "for defining communicative language proficiency in academic contexts" based upon the intended use of the TOEFL 2000 test and what it intends to measure (Chapelle, Grabe, & Berns, 1997, p. 2). The COE Model illustrates the interactiveness of the significant variables in the context of language use with those which are within the individual language user; what they consider as the 'internal operations' that work together "to interpret and produce language in context" (Chapelle et al., 1997, p. 4). The COE Model (1997) emphasises "the importance of context in communicative language proficiency" (Chapelle et al., 1997, p. 7) by outlining the specific features of the language use where TOEFL 2000 language users will encounter it; within the academic context relating to both university daily life, and the classroom. This is detailed in the context constituents of setting, participants, task, text, topic, and performance (Chapelle et al., 1997). Interacting with the contextual components is "the processing that goes on in the mind during communicative language use" (Chapelle et al., 1997, p. 10). This processing is that of the 'internal operations' of a test taker which include components of; internal goal setting, verbal working memory, verbal processing component, language competence, and internal processing output (Figure 4).
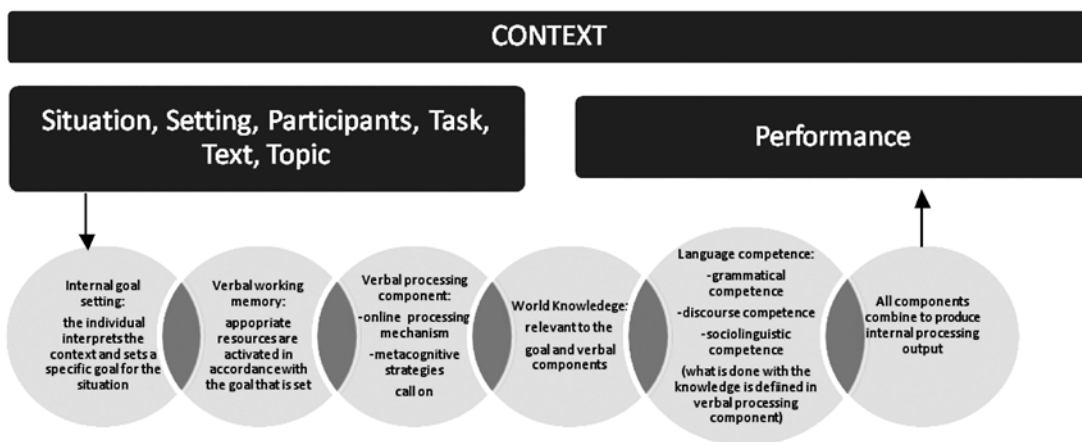
Figure 4: the interaction between the context and the internal operations of the language user in the COE Model (1997)

Comparison and Contrast

In considering the development of the aforementioned models it is now appropriate to compare the final evolutions of the first two frameworks with the COE Model (Table 1).

Who?	Canale (1983)	Bachman & Palmer (1996)	Chapelle, Grabe, & Berns (1997)
What?	Theoretical framework for communicative competence	Model of language ability	Model of communicative language proficiency
Why?	For an explicit, justifiable explanation of communicative competence and its implications in teaching and testing	For describing the characteristics of language users (potential test takers) to influence design of tests that are beneficial and ascertain the influence of characteristics on test takers' performance	For defining communicative proficiency needed for academic life; based on the TOEFL 2000 test

Components?	*Grammatical competence *Sociolinguistic competence *Discourse competence *Strategic competence	*Language knowledge *Affective schemata *Personal characteristics *Topical knowledge *Strategic competence (metacognitive strategies)	Internal operations; *Internal goal setting *Verbal working memory *Verbal processing component *World Knowledge *Language competence *Internal processing output
Non-language features ?	Suggested 'implicitly' in components	Characteristics of the language use, test task, or setting	Context; situation, setting, participants, task, text, topic , performance
Interactive components?	No	Yes	Yes

Table 1: a comparison of the three models' components

One similarity amongst the models is the idea that proficiency is a construct akin to L2 development and acquisition in that it develops over time and is not static (Celce-Murcia & Dornyei, 1995). However, the latter two models are distinctively interactive between and amongst their components and the context of language use. Although Bachman & Palmer's (1996) model and the COE Model (1997) extensively incorporate the interaction of the psycholinguistic and situational and affective factors with the language specific components, Canale's (1983) earlier model does not. Canale (1983) only acknowledges the assumption that communicative competence "interacts in as yet unspecified ways with other systems of knowledge and skill [...] as well as with a theory of human action" (p. 6). Therefore, there are no explicit attempts within his framework to specify such influences.

The overlap of terms and concepts is variable throughout the three models where competence, knowledge, ability, and proficiency are used somewhat interchangeably. Chapelle et al. (1997) cite the influence of Canale & Swain's (1980) conception of communicative competence and the extension of Bachman's (1990) "more specific model of language ability" which illustrates how Canale and Swain's (1980) "four competencies work together in language use and which expresses an explicit relationship between "context" and competencies" as can be seen in Figure 3 (Chapelle et al., 1997, p. 3). All three models share language competence and sociolinguistic competence as components. Bachman & Palmer's (1996) model and the COE Model (1997) both expand the sociocultural norms of language use mentioned in Canale's strategic competence (1983) to topical knowledge and affective schemata, and world knowledge respectively. Chapelle et al. (1997) claim that such 'world knowledge' "works together with language competence to comprehend and produce language in context" (p. 16).

The latter two models are unequivocal about their intended purpose as they are both aimed at being applicable to measuring the proficiency of test takers, with the COE Model (1997) concerned with the specific academic language proficiency which the TOEFL 2000 test intends to measure (Chapelle et al., 1997). Bachman & Palmer (1996) also assert that their model "is not a working model of language processing, but rather a conceptual basis for organizing our thinking about the test development process" (p. 62), while Chapelle et al. (1997) identify "significant variables that affect language use (both comprehension and production) in academic contexts" (p. 4). However, Chapelle et al. (1997) do attempt to outline the language processing which occurs during language use in the internal operations components of their model. Ultimately, there is the practical need to consider whether the development of these models is beneficial for test takers and accessible for language test designers.

In contrast to Canale & Swain's (1980) broad view of communicative competence, Bachman & Palmer (1996) cite the necessity "to define language ability in a way that is appropriate for each particular testing situation" (p. 66). The COE Model (1997) is the framework for the construct of communicative language proficiency as measured by the TOEFL 2000 test; however Chapelle et al. (1997) profess their intention to continue to evolve their subject-specific model through continued discussion and validity research. All three models acknowledge that they are open-ended and continued discussions and that further research is imperative to their development.

Overall, the latter two models are definitive in their possible implications for language testing and test takers' language use, whereas Canale's (1983) remains largely focussed on a 'communicative approach' to pedagogy. However, as Canale (1983) admits, a model allows "more direct applications" (p. 12) that a framework does not. Both of the latter models permit the complexity of language use within an interactional framework, specifically in the interaction of the language user's internal operations with the context component of the COE model, and the characteristics of the language use, testing task, or situation with the individual test taker's in Bachman and Palmer's (1996) model. Therefore, the latter two models could be said to allow a more adequate basis for the measurement of proficiency due to the consideration of the test taker's cognitive processing and the situationalcontext of both the language use and the test performance. As Chapelle (as cited in Hulstjin, 2006) states "performance consistency is affected by both the trait we wish to measure and by features of situation and task" (p. 18). Consequently, Bachman & Palmer's (1996) model, and the COE Model (1997) more so, take into account factors that can help or hinder a language user's or test taker's performance such as testing conditions or a test taker's familiarity with situational contexts of the language in the test items.

Future directions and considerations

Hulstjin (2006) points out "in language testing we draw inferences concerning test takers' language proficiency on the basis of their test performance" and by no means is this a black and white process (p. 18). It can be said that all of the aforementioned models of proficiency, when utilised, have impact not only within the testing site walls but beyond, which Taylor outlines as "the way a test can affect teaching, materials, and the broader learning context" (2006, p. 54). In an ever increasing 'globalized' world, language proficiency is a substantial issue. Recent literature discusses the changing definition of English proficiency due to the concept of English as an International Language (EIL), and the acceptance of traditional 'non-standard' Englishes as valid for international communication will have implications for assessment, and the construct of proficiency will need further reconceptualisation (Taylor, 2006). As Taylor (2006) points out "language assessment has moved away from the traditional 'deficit' model based on how 'far away' someone is from the 'top of the scale' (previously defined as native speaker competence)" (p. 52).

Test or construct validity must ensure that the construct on which the test is based (the test-takers proficiency in the L2), must be both an adequate and accurate reflection of the test-takers ability (Bachman & Palmer, 1996). Through the discussion of the development of the COE Model (1997), the possibility of advocating a cyclic process in which language proficiency is defined, modelled, and tests created according to the test takers needs, is evident. However, the numerous discrepancies between the models, theoretical frameworks, surrounding literature, individual test takers, and variant contexts suggests that there is not a 'one-size-fits-all' answer to the definition of the construct of proficiency and therefore Spolsky's (1985) question may continue to remain unanswered.

Conclusion

As Alderson (1981) asserts, "traditionally, proficiency testing at least has been concerned to find the best predictor of a criterion: the argument has run that the best proficiency test is the one which best predicts future behaviour" (p. 59). Therefore, the COE Model (1997), which examines proficiency as a specific conceptualisation for the test takers concerned, suggests a way forward. Additionally, it is clear that more research and empirical evidence is needed to be undertaken about test takers' characteristics in specific contexts and the kind of proficiency measure that would be most beneficial. Bachman summarises:

> For both theory and practice, the challenge is thus to develop tests that reflect current views of language and language use, in that they are capable of measuring a wide range of abilities generally associated with 'communicative competence', or 'communicative language ability', and includes tasks that themselves embody the essential features of communicative language use. (Bachman, 1990, p. 297)

For all practical purposes the equivocal construct of language proficiency provides information for decision makers in the testing process and the discussed models make apparent that the value of language proficiency affects both the micro and macro level of testing and teaching (Bachman & Palmer, 1996). Although the construct's definition is ultimately seen as a resource it could also be considered a constraint. The main shortcoming of the above conceptualisations (and in the COE Model's (1997) case, operationalisation) of language proficiency is that it remains an abstract construct whose measurement is always biased towards preconceived notions of quantifications of mostly invisible components, and a 'true' measurement of language proficiency hovers out of reach (Bachman & Palmer, 1996). Testing, theories of proficiency and their pedagogic implication; psychological constraints and constructs will be increasingly looked to, to describe, analyse and answer the different situational factors and individual test taker characteristics (Bachman & Palmer, 1996). More pressingly, affective variables such as motivation, anxiety and willingness to communicate, will be further examined as to how they affect test taker's performances of their language proficiency, abilities and competencies. Thus, it continues to be fundamental for language testing practitioners "to probe more deeply into the nature of the abilities we want to measure" (Bachman, 1990, p. 297), as well as continued critical evaluation of the validity of our measurement tools (Shohamy, 1998).

References

Alderson, J., C. (1981). Report of the discussion on communicative language testing. In J. C. Alderson and A. Hughes (eds.). *Issues in Language Testing*. (p. 55-64). ELT Documents 111. London: The British Council.

Bachman, L., F. (1990). *Fundamental considerations in language testing.* New York: Oxford University Press.

Bachman, L., F., & Palmer, A., S. (1996). *Language testing in practice.* New York: Oxford University Press.

Canale, M. (1983). From communicative competence to communicative language pedagogy. In J. C. Richards and R. W. Schmidt (eds.). *Language and Communication*. (p. 2-27). New York: Longman.

Canale, M., & Swain, M. (1980). Theoretical bases of communicative approaches to second language teaching and testing. *Applied Linguistics, 1*(1), p. 1-47.

Celce-Murcia, M., Dornyei, Z., & Thurrell, S. (1995). Communicative competence: A pedagogically motivated model with content specifications. *Issues in Applied Linguistics, 6*(2), p. 5-35.

Chapelle, C., Grabe, W., & Berns, M. (1997). *Communicative language proficiency: Definitions and implications for TOEFL 2000* (TOEFL Monograph 10). Princeton, NJ: Educational Testing Service.

Davies, A. (1990). *Principles of language testing*. Oxford: Basil Blackwell.

Hulstijin, J.H. (2006). Defining and measuring the construct of second/language proficiency. Plenary address, held at the joint conference of the American Association for Applied Linguistics(AAAL) and the Association canadienne de linguistique appliqée/Canadian Association of Applied Linguistics ACLA/CAAL, Montreal, June 17/20, 2006.

McNamara, T. (1996). *Measuring Second language Performance*. Longman: New York.

Shohamy, E. (1998). Critical language testing and beyond. *Studies in Educational Evaluation*, *24*(4), p. 331-345.

Spolsky, B. (1985). What does it mean to know how to use a language? An essay on the theoretical basis of language testing. *Language Testing. 2*(2). p. 180-191.

Taylor, L. (2006). The changing landscape of English: Implications for language assessment. *ELT Journal*. *60*(1). p. 51-60.