From practice to theory and back in interpreting: the pivotal role of training

Robin Setton

SISU-GIIT Graduate Institute of Translation and Interpretation
(Shanghai International Studies University)

Abstract

Interpreting research (IR) has so far yielded 'no major discoveries or applications' for professional practice (Gile 2001). Today, with access to new and larger corpora and advances in analytic techniques, research on authentic data, and in 'ecovalid' conditions, is developing fast, but conclusions will necessarily remain tentative for the foreseeable future, and uptake by professionals indirect at best. However, IR has helped to conceptualise and model interpreting to pedagogical effect. Currently, therefore, the most direct route for interpreting research and theory to benefit professional practice is still through training, initial or remedial.

Changing markets are posing several new challenges to interpreter training: multilingualism, shifts in language demand and distribution (with more demand for work into B), increased pressure to accept fast, 'multimedia', recited and remote input, and the need to rejuvenate an aging profession. An effective pedagogy adapted to contemporary and future conditions must (i) reset objectives by 'working back' from a realistic picture of the balance between client expectations, inherent constraints, and the potential of expertise, as derived from research on authentic data and situations; (ii) tap rich seams of relevant theory in cognition and communicative interaction that have been relatively neglected in the past; and (iii) take the pedagogical challenge seriously, with more attention to such aspects as progression, simulation, usable feedback, consistent and credible evaluation and testing, and putting ourselves in the student's (and later, the client's) place.

1. Introduction

The theme chosen for the 2010 Trieste conference 'From Theory to the Interpreting Profession' turned out not to be about the impact of theory (or research) on professional practice, but an invitation to take professional reality as a starting point for investigation, rather than mere theory.

At the landmark Trieste conference of 1989 (Gran and Dodds 1989), the call went out for more empirical, but also more rigorous research on interpreting to replace 'personal theorising'. One result of this call has been to favour controlled experiments as a source of findings, with a relative decline in corpus-based studies. In fact, the 'personal theorising' in Paris went with a strong commitment to corpus-based research. The 'empirical turners' ' criticism was more justifiably aimed at the apriorism with which this school seemed to project personal theory and intuition onto the data, and at a lack of scientific method, rather than at the use of authentic data as such (still less at this school's undeniably effective teaching).

Against this historical context the 2010 Trieste conference can be seen as an invitation to a re-alignment. Lately there have been growing questions about the power of natural-science experimental methods alone to produce relevant, ecologically valid findings about this human, situated activity, and a clear new trend towards combining or triangulating multiple approaches, qualitative and quantitative. At the same time we are seeing a spectacular revival of research based on authentic data, as reflected in the rich and exciting session at Trieste devoted to corpus-based interpreting studies. Importantly, however, there is no sign of any backtracking in the demand for better and more solid scientific method.

Taking an optimistic view, we may be seeing a new turn in a spiral of progress as interpreting research matures, in which the empirical turn is confirmed, but can now embrace a broader range of approaches without abandoning its attention to rigour and careful inference. The 'spiral' metaphor seems more appropriate than the 'paradigm shift' in a discipline that sits astride the humanities, with their ineradicable element of human variation, and the new sciences of cognition and language that aspire to more tangible forward development. In the 'hard' sciences, entire paradigms – like phlogiston or the ether – may be proved to be simply wrong and superseded completely and without residue, becoming mere historical curiosities. In the humanities, a truly mature and confident discipline does not erase formative phases as if they had never contributed, but recognises them as perfectible contributions to a maturing whole. To coin a phrase, we will always have Paris, as we will always have Trieste 1989, and now Trieste 2010.

A growing discipline needs both the push of individual initiative and the support of its institutions, on which it is dependent for its research centres, and the pull of interest and expectations from the profession. Today, Interpreting Studies owes its existence to the commitment of a few enthusiastic researchers and the thesis requirements of a few schools rather than to any direct appeal from the profession or recognised application of its findings to the practice of interpreting. It can thus only survive as part of a self-nourishing cycle in which the pivotal link is interpreter training.

In the first part of this paper, we explain why research findings robust enough to be applied directly to a diverse and complex professional reality will remain beyond our reach for the immediate future, and suggest that the most productive way for theory and research to feed back into practice is still through the laboratory of interpreter training. The second part of the paper suggests how theory drawn from wider sources, plus certain kinds of research based on authentic interpreting data and situations, can contribute to developing an updated training model to meet the new challenges of a changing professional environment.

2. From research to practice: direct and indirect impacts

Research, especially when done with scientific care and rigour, yields results only piecemeal and very slowly. In an attempt to foster realistic expectations of research among professionals, Gile (2001) avows that '[interpreting research (IR)] 'cannot claim to have made any *major* discovery so far, or to have developed *major* applications in professional interpreting or training'. Gile explains that even the modest findings of barely three or four decades are based on small samples and remain tentative and in need of verification, and recalls the many objective constraints on this research. We might add as complicating factors: severe methodological difficulties (eco-validity, valid extrapolation), and consequently, competing paradigms and intense debate over method that certainly reflect vigour and belief in the discipline, but also dissipate energy in false dichotomies, and perpetuate a tension, potentially paralyzing, between a misplaced scientism that puts exclusive trust in quantified approaches and the inherent individual variability that inevitably emerges in every new study, as it must in any observation of human behaviour.

The difficulties of applying research results to practice thus stem partly from disagreements over methodology and standards of proof, and partly from a mismatch between the nature of research findings and the realities of practice. These problems are illustrated by two studies that seem directly relevant to working conditions. Moser-Mercer *et al.* (1998) claimed to show a deterioration of quality after 30 minutes of continuous simultaneous working in the booth; but Gile (2001) disclaims it. Anderson (1994) found no influence on performance of either a view of the speaker, or of prior access to documentation, a finding that seemed at odds with interpreters' direct experience or preferences. The reluctance to draw the conclusions for professional practice is ascribed to the clash between 'objective' research and the subjective preferences of interpreters and their associations. Another way of putting it might be to say that such experiments, meticulously conducted but on a small sample of interpreters working in the laboratory, cannot claim a level of ecological validity sufficient for application to real life: among other things, since experimental participants often treat a more difficult task as a challenge and put in extra effort to compensate (compare linguistic acceptability tests in which subjects are biased by ingrained academic standards of what is 'good grammar'). They may not, however, wish or be able to keep up this effort or discomfort day in, day out in their normal professional life. Meanwhile, numerous studies have shown that 'vision is an integral part of the normal listening process' (Kellerman 1990); so interpreters' 'subjectivity' in seeking this normal condition would seem legitimate. The findings of studies like Anderson's do not yet have the force of the evidence that the world is not flat, and cannot be expected to override our preferences for more comfortable working conditions.

Although IR, like any discipline, is taking some time to produce findings robust, ecologically valid and representative enough for direct practical application, this is not to say that research on interpreting can never yield

Better Working Conditions	Through advocacy and negotiation	**Training**: AIIC business seminars for freelancers
Better Status	Indirectly through status of schools, published research	**Training** in research methods
Better Service/Performance		
- Basic skills	Better initial training	**Applied theory**: cognitive modelling; pedagogy
- Better **Comprehension**	Expand range: dialects, domains, genres	**Training**: refreshers & updates
- Better knowledge, terminology	Domain-specific refreshers, updates	Technology (ITC) and training in use of resources
- Readiness	Knowledge/language activation	Cognitive **theory**
- Better **Product**	User feedback, to determine needs Peer feedback (colleagues, mentors...)	**Research** on reception: user surveys, interaction with users Informal exchanges

Table 1 Practitioners' aspirations: contributions of theory, research and training

useful findings. Multiple studies on small samples and in local situations can build up a suggestive picture until it becomes as difficult to show that converging results are unrepresentative than to accept them as generally valid. But to reach this critical mass (including the requisite checking, critical review and replication) from which more confident judgments can be made about what is universal or variable will take time, and a sustained momentum. This will require continuing researcher motivation and qualification, and perhaps most critically, institutional stability. For the foreseeable future, that in turn may well depend primarily – when weighed in the scale of educational funding priorities – on the schools' performance in training market-ready interpreters.

Table 1 gives a rough overview of the ways in which interpreters, both staff and freelance, aspire to improve their lot, as reflected in informal and formal surveys (e.g. Setton and Guo 2009), and the role of theory, research and training in meeting these aspirations. There is clearly a place for research and theory, but they find their way to application essentially through the training of people.

In short, while direct feedback from research to practice is still tenuous, training is still the most productive conduit between theory and practice: these nourish each other in a constant cycle, but find their way to application essentially through training (Figure 1).

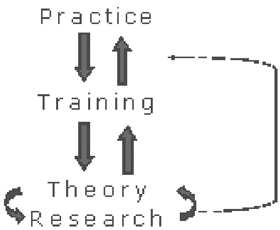

Figure 1

For the foreseeable future, therefore, no bigger impact can be made on interpreting practice than the successful training of excellent interpreters. Each successive group of trainee interpreters presents a clear challenge to course designers and instructors: to take the measure of what is universal vs. what is individually variable, applying the findings of cognitive science and pedagogical theory respectively, so that theory is converted into practice through the learning process – theory implemented through people in their diversity.

3. Theory and training

Effective specialised training for interpreters has never been more necessary than today, with:

(i) Expanding and changing market conditions, discourse patterns and styles of presentation: mixed media, fast and informationally-dense speeches often recited from text;
(ii) New language combinations and shifts in abilities required in interpreters, including increasing demand for simultaneous into B;
(iii) An aging profession (Durand 2005);
(iv) The need to uphold standards and demonstrate the added-value of quality interpreting in the service of both efficiency and ethics, at a time of rising pressure on communicators in all domains to make do with English (e.g. in conference and business interpreting), or accept makeshift interpreting (e.g. in legal and community settings).

These developments place new requirements on training at different levels:
- pre-training modules for interested candidates in the final undergraduate year;
- basic interpreter training;
- further training (refreshers and updates to add languages or activate a B language, or in specific knowledge domains);
- teacher training;
- training in scientific methods for researchers.

Last but not least, *interpreter testing and certification* is coming under increased scrutiny. A credible, reliable and consistent certification regime is necessary for accountability, credibility and transparency vis-à-vis both clients and institutions hosting training programmes, who may reasonably be concerned about perceptions of equity, student morale, and integration with the wider grading system in the university. Here again, in seeking the difficult balance between consistency and human variability, there is no reason not to consult, and adapt, lessons from the broader literature on testing.

3.1. The potential for theoretical progress

Historically, practice came first: a sudden demand for professionals spurred training, which in turn generated theory and research. In completing the cycle so that research and theory benefit practice, there will only be something new to feed back if some added value has been picked up since the days when practice suggested the first theories. Indeed the decades since the birth of conference interpreting have seen a golden age of discovery in the cognitive sciences, but both the theory and pedagogy of interpreting studies have been disappointingly slow in integrating this knowledge.

Some relatively untapped sources of theory and models that are directly relevant and adaptable to the needs of interpreter training include findings on the complexities of memory and attention, the organisation and activation of knowledge and language in the brain, and the acquisition of expertise; and in linguistics, modern theories of verbal communication that notably shed light on the vast dimension of pragmatic choice, and the role of context and inference, fleshing out the rules-and-conventions description of language that though increasingly sophisticated, was utterly inadequate to model the mechanisms of real verbal communication.

Unfortunately, all this is quite new and not easy to formulate non-technically, especially since it involves inter-disciplinarity and thus probably needs invention of new terms and concepts. In drawing on this new understanding to inform interpreter training, we will have to distinguish between two levels of theory: theory for course designers and instructors, and theory for students, as a tentative adjunct to classroom pedagogy.

3.2. Complementing the 'apprenticeship model'

Training is the main justifiable motivation for development of any 'theory' about interpreting – though some are sceptical of need for theory even here, or even opposed to it as a distraction or source of confusion. This was the old-school view at a time when interpreters were all supposed to be encyclopaedic, highly-cultured pure bilinguals, and training was pure apprenticeship, through observation, imitation and practice. Jean Herbert, one of the first trainers of conference interpreters, is said to have introduced his training course as follows: "This course will be in two parts: theory and practice. Part 1: The interpreter must say exactly what the speaker said. Now for Part 2…"

Today, however, any conscientious young trainer will soon feel the need to be able to *explain*, if not how interpreting works, at least the parts students stumble on. It soon becomes obvious to any would-be teacher, in any field, that understanding, doing and teaching are three different things. The first 'new' requirement we must add to the traditional apprenticeship model is that both course designers and individual instructors will increasingly need more than just personal professional experience. There is no good reason to change the basic spirit of the apprenticeship tradition, but we need to add two dimensions:

1. Theoretical: models of the criterion tasks and of progression towards them, and an understanding of the trainee's learning curve.
2. Practical: a pedagogical framework and practice for getting trainees there:
   (i) course design and progression;
   (ii) classroom practice, exercises and especially, feedback.

Training can benefit from 'theory' in at least two dimensions: in understanding the *problem* – the target tasks, intermediate objectives and their attendant cognitive challenges – and to develop effective *solutions* – in other words, pedagogical strategies for reaching them. Implementation in the classroom will always retain some experimental, flexible element, since each student is a new person, but what we know from cognitive science and educational theory, about memory, attention, processing capacity or language availability or interference in multilinguals, or implicit vs. explicit learning, all adapted to the specific tasks of interpreting, make it possible to conceive general guidelines for course design, and for teacher training.

3.3. Theoretical: modelling the training challenge from both ends

Effective training needs to be designed and dispensed against a model, or set of nested models, of interpreting. The starting point should be an accurate, updated picture of the real market requirements (adapted to whatever market(s) the course is targeting), consisting of detailed realistic descriptions of the criterion tasks that will be required of the graduate. This model should be multi-faceted, showing the tasks from the perspective of the interpreter (cognitive, linguistic and social challenges, components of expertise, and the incremental steps for getting there) but also of the users and perhaps also the clients – hence the value of research data on user reception and expectations in the target markets.

A training course should be designed by working *backwards* from this task description, and *forwards* from (virtual) profiles of typical beginners admitted to the course. Both these models must allow for some variation – real-life demands vary, and people even more so – but we must decide what can vary, and what aptitudes all beginners (or graduates) must have, and design selection tests (or final certification tests) accordingly.

Next, we need a structured progression of activities, exercises, explanations (and remedial or support modules) to get from A to B. This will be much more solid, and more convincing for instructors who will be expected to subscribe to and internalise it, if it is based on a cognitive analysis of the successive challenges that trainees will face, and thus a rough understanding of their general learning curve. Theories about cognition and communication (and psycholinguistics, mental processes etc.) can help here, if intelligently and critically adapted to interpreting.

Once this theoretical apparatus is in place as a basis for training, instructors must familiarise themselves with it to be able to teach confidently and effectively. Teachers navigate a space between two constraining 'guiderails': on one side, the fixed rail of the course structure and progression, with its defined steps, exercises and intermediate objectives (and parallel language and knowledge development), and on the other, the variable paces and styles of the different individual students, allowing for plateaux, leaps and dips, which may also call for occasional 'morale management'.

4. Pedagogical solutions

4.1. Progression in a complex skill: theory and evidence

When trying to apply the results of research, we sometimes have to choose between a persuasive theory that has never been implemented and an established practical procedure that seems to work. When the stakes are high it is understandable to submit to 'path dependency' and prefer the latter (rather as computer keyboards follow the layout originally designed to slow typists down to prevent the metal arms getting stuck, rather than make the whole transitional generation's typing skills obsolete). Expertise research has analysed complex tasks as composites of simpler skills, leading to proposals for a componential approach to interpreter training, in which component sub-tasks can be mastered separately in targeted exercises, then finally combined as 'multitasking' into full competence.

The established alternative to the componential strategy is the incremental approach that grew out of the spontaneous solution to the first urgent training demand, whereby those with some experience tried to pass it on, combined with inspiration from the constructivist pedagogy advocated by Piaget. In a well-orchestrated apprenticeship, the trainee is initiated in a simple version of the integral task, in a protected environment (ideal working conditions) which already elicits the same reflexes, excitement, risks and rewards as the full task, but without most of the more notorious difficulties and hazards of real life. These hazards can then be added incrementally: the speeches become gradually more difficult, more formal or structured (or indeed, more problematically incoherent), are delivered faster, and in the later stages, are mixed up with other input like unfamiliar proper names, complex numbers, written text and slides.

Our preference for continuing and developing this tradition is in part theoretical: it is not clear how SI would be analysed into sub-tasks, and we know of no 'dual-tasking' research on how to juggle or combine the two tasks needed in interpreting, i.e. analysis of an unfolding argument and lexical translation. More importantly, this choice is evidence-based: to our knowledge, no successful attempt to train interpreters through the componential method has yet been documented. To test this approach on a generation of trainees would seem to put unjustified faith in the transposition of a theory to this specific activity; developing and enhancing the incremental apprenticeship with new theory and pedagogical technique seems a better bet.

4.2. Course structure and progression

The incremental apprenticeship model provides for a progression from initiatory exercises through simpler tasks and/or demands to more challenging or complex tasks and more rigorous criteria of assessment. A complete course should culminate in practice on authentic discourse, posing the combined, complex cognitive and linguistic challenges of real-life, in which the trainee's performance is measured against the projected expectations of real (informed) conference participants, in terms of fidelity and comfort – the two sides of the quality coin – allowance being made for the artificiality of the setting.

Partly because of this artificiality, most courses stop short of this final simulation of reality, though in a well-organised and funded course and/or in favorable conditions (e.g. an in-house course in an organisation like the EU), this shortcoming may sometimes be compensated for with mock conferences, internships and mentoring. There is certainly room for more research on training at these higher levels, given the probable rising demand to train viable 'professional beginners' for a fast-changing environment.

The classic conference interpreting course on the apprenticeship model usually comprises three successive and incremental phases:

(i) General initiation: discovering how an interpreter must listen, how (s)he is expected to speak (register, presence, coherence, and what is expected in a B language), what (s)he should know, or be expected to learn about temporarily;
(ii) Consecutive interpretation;
(iii) Simultaneous interpretation.

To allow explicitly for individual variability, the process of acquiring the specific technical skills of interpreting – basically, consecutive and simultaneous – can also be divided into three phases, in which the longest allows each trainee freedom to experiment, albeit under supervision:

- Initiation, in which the student discovers the basic challenge of the skill (balancing note-taking and attention to the message, for consecutive; listening with speaking, for simultaneous) and is given a simple basic objective (render content, worry less about form);
- Experimentation, in which (s)he finds her/his own way of handling the task, on a widening variety of speeches;
- Consolidation, moving towards increasingly realistic materials, conditions, settings and demands on the product.

Though instructors will offer diagnosis, feedback and recommendations throughout, the focus in the experimentation phase will be on process, and in the first (relatively short) and last phases on the product.

4.3. Classroom practice: feedback

To understand and address problems in the classroom as they arise, while guiding students in a way that is coherent with the rest of the programme, each instructor can now draw on three resources:

- an inherent pedagogical sense and sensitivity (which must be checked at recruitment);
- a clear course design and progression, common to the whole training programme and based on both cognitive and market realities,
- an overall grasp of interpreting as an encounter between cognition and communication, a balance between the cerebral and the social; and crucially, of the interdependence between external conditions, interpreter competence, and expectations, or quality and service objectives.

Classroom feedback is the 'coalface' of effective teaching. Only an instructor thus qualified can provide all-round, or '3D' instruction.

4.4. '3D' Training: observation, diagnosis and treatment

For various reasons – budget, motivation, instructor availability or motivation – trainee interpreters have often had to be content with one-dimensional instruction, mere observation and correction: – 'you should have said this' or 'you should be more fluent, elegant, convincing' and in worse cases, observation and rejection ('how can you hope to be an interpreter', etc.).

1. Observation (& correction): from 'you should have said…' and a list of mistakes, to demonstration by self and peer evaluation (e.g. by recording and playback, public and private), and sensitive interaction;
2. Diagnosis: identifying the causes of errors and failures, where theory can complement intuition;
3. Treatment: recommendations and exercises, drawing on theory, research and pedagogical expertise.

To provide '3D' instruction – or at least 2D, offering diagnosis – we must be able to unravel the source of problems, if necessary with the help of some heuristic template, such as this analysis of interpreting competence into four components:

· *Language*: passive (comprehension range and depth) and active performance (availability, range, flexibility, register control).
· *Knowledge*: general (world) and local or specialised (preparation, activation); range, depth and mobilisation.
· *Skills*: active listening, public speaking, consecutive with notes, simultaneous, managing mixtures of speech and text, and in general, interpreting-specific cognitive agility.

· *Professionalism*: awareness of relationship between conditions, quality expectations and potential performance; social, diplomatic and interpersonal skills.

Problems attributable to weakness in one or more of these four areas can usually be distinguished in the classroom from each other and from issues common to all translation, such as cultural transfer strategies, choices to explicate or omit, and so forth.

Table 2 shows some frequent problems encountered in consecutive with notes.

Observation	Diagnosis	Treatment
Significant omission	Item not heard, too busy writing (Skills: attention/coordination)	Explanation, practice
	Heard but disregarded (Knowledge, sense of relevance)	Deepen knowledge (reading, preparation)
	Heard but didn't note (Awareness of own memory)	Practice
	Heard and noted illegibly (Skills)	Practice
	Heard and noted but misunderstood (Language, listening/analysis and/or knowledge/preparation	Warning and 'notes-vs-no notes' demo on abstract, argument-ative passages
Significant error	Heard and noted, but distorted (Analysis, or target language weakness)	
Vague or unclear output from A into B	Misjudged cultural gap (explication, paraphrase needed), and/or TL weakness	Use 'naive' TL listeners; language enhancement

Table 2 Common problems in consecutive with notes

As we can see, there are usually several possible causes for failure, of which the student may only be partly aware. Examining the notes can help, but in many cases the problem(s) can only be reliably diagnosed by elimination through a variety of exercises on different kinds of speech, auxiliary exercises like sight translation, returning to a demonstration of how one may do better without taking notes on certain passages. As trainees progress, problems and recommendations should shift from process (coordination) to product (strategic choice, professional judgment, eye contact, momentum, posture, etc.).

4.5. Theories, models and metaphors in the process phases

Theories and models of the interpreting process, if explained clearly with examples, can usually help most students to understand the task in the initiation and experimentation phases. The Effort Models (Gile

1995/2009), for example, help to visualise the challenge of coordination, but do not address issues of meaning and language, which in turn are analysed helpfully in ITT. Chernov (1994, 2004) helps to understand how interpreters can exploit the information structure of discourse, as it alternates between density peaks of new and old information, as well as their own knowledge, to distribute attention and production, while Setton (1999) draws attention to the use of context, and of pragmatic cues in discourse, to anticipate or compress. To raise awareness of the interpreter's role and relations with her/his clients and environment in different settings – conference, court or community – authors like Pöchhacker (1994), Hale (2004) or Wadensjö (1998) can be tapped for general overviews.

However, this literature should only be drawn upon if a clear, lively and pedagogical picture can be extracted that trainees can immediately connect with their own experience. Failing this, evocative metaphors like Seleskovitch's 'currant bun', have proven their effectiveness.

These theoretical aids to teaching are to be distinguished from the more abstract and technical material from cognitive science, briefly mentioned below, that can make a significant conceptual contribution to interpreter pedagogy at the course design level, and should be recommended reading for instructors.

4.6.Theory in defining the criterion standard of competence

In the later stages of training, from 'consolidation' in a wider variety of speech types through to exposure to real life conditions (SI with text, speed, accents, etc.), students will gradually be judged against a new yardstick – no longer against the intermediate and partial objectives of successive steps in the progression, as described, but against the expectations of users, and beyond them where possible.

Here, theory and research can contribute usefully to the quality criteria and expectations to be internalised and applied by instructors in the final stages, up to and including the certifying diploma (and hence also by jury members). This stage is critical, not just for its traditional gatekeeper function, but because training programmes are under pressure from all sides to meet standards that are simultaneously credible, accountable and consistent. Credibility means showing students (by instructor demonstrations and visits to real conferences) that the standard demanded is feasible and realistic, and employers that it meets their needs. Consistency and accountability mean showing all stakeholders that standards do not vary from jury to jury, class to class or year to year (subject only, perhaps – realistically – to 'running-in' periods for brand-new language combinations).

These goals are not trivial to achieve, and we can use any available help from research on testing generally, and on reception and users' quality perceptions and expectations, and from theories of communication that can help conceptualise and operationalise a standard of communicative quality, and importantly, understand and factor in degrees of difficulty:

(i) *User surveys*, a fairly recent branch of interpreting research, tell us about the relative importance that users of the service attach to different features of the product. These must be used with caution (they show variation among different meeting types, for example), and cannot be adopted blindly without balancing with our own profession-internal standards, and of course, against what we know (but users may not) about feasibility in different working conditions – SI from recited text, for example. But these surveys have already adjusted our understanding of quality as perceived by our users.

(ii) *Controlled, specific research on reception*: Collados Aís (1998), for example, found that a pleasant, charming voice often blinded judges of interpreting quality to inaccuracies, while Setton and Motta (2007) found that accuracy was a good indicator of quality as judged by experts. Exam administrators must satisfy themselves that jury members, especially the less experienced, are alert to this danger.

(iii) *Theories of communication*, from the field of linguistic pragmatics, offer a useful framework for measuring quality and discourse difficulty. For example, in Relevance Theory (Sperber and Wilson 1995), the *relevance* of an utterance to an individual is technically defined as a trade-off between the cognitive effects it provides (roughly, its meaningfulness or informativeness) and the effort needed to derive them. This is a useful guide to evaluating communicative quality: in assessing interpreting into a B-language, for example, the amount of meaning communicated must be weighed against the possible discomfort or effort that linguistic flaws may cost the listener, which may even cause him to switch off above a certain threshold. More positively, quality is enhanced by user-friendly presentation, with meaningful prosody and cohesive ties. Of course, this guideline must be complemented with an interpreting-specific criterion – *fidelity* to the speaker's meaning – but the effect-effort equation shows how fidelity and 'presentation', which juries are sometimes asked to judge separately, are inseparable sides of the same quality coin.

4.7. Theory and training to market readiness

Even the best training programmes find it hard to prepare trainees for the shock of real market conditions. There is usually no time left at the end of the course to practice on difficult accents, ultra-fast or recited speeches, or

PowerPoint presentations via relay, nor the facilities to simulate the combination of these conditions we meet in reality, leaving an 'expertise gap' (Donovan 2008).

Nor do we have any specific pedagogy for these tasks. To make a start in filling this gap, trainers must first try to analyse and understand these complex tasks in cognitive terms, check their feasibility against user needs and interpreters' own norms, derive realistic expectations on student performance, and recommend coping tactics and strategies.

Some of the more advanced tasks required in real-life interpreting pose new and significantly different cognitive challenges when compared to 'basic, everyday' consecutive and simultaneous. SI with text, for example, entails juggling three 'texts' instead of two (two in, one out). Giving or taking relay on a slide presentation calls for different time management. The intelligent gisting needed to meet user needs (i.e. provide key information) from a speech that is read too fast for full interpretation is different from the basic gymnastics of producing complete renditions of successive sentences. Instructors will be able to diagnose and recommend more confidently and effectively if they have some internalised model of these tasks.

Analytical work that could contribute to developing a cognitively informed pedagogy might start with a finer typology of speech types, from genres down to the level of discourse texture, which might then be related to a cognitive model of processes to inform diagnosis. With their own experience enhanced by this theoretical understanding, and sharing reflections on pedagogy, instructors should be able to teach trainees to recognise a speech that needs complete reformulation from one that can be followed more closely, or one that is too fast and dense for 'full' interpretation, and recommend appropriate strategies to meet user needs in each situation: instead of trying to render everything and inevitably fail, producing nothing usable, focus on doing justice to the dominant note of the speech, be it persuasive, informative or ceremonial; learn what information to omit, how to highlight topic changes, to 'bullet-point' the speech with vocal pointers, and so on.

5. Feasibility: the price of realistic, sustainable interpreter training

For theory to irrigate pedagogical practice, it must be internalised by course leaders and designers, then expressed in the course structure and evaluation/testing procedures, and finally, passed on to each instructor, who must complement their personal professional experience and intuition with a basic understanding of key parameters: the cognitive challenges of the course for students, factors in speech difficulty and their appropriateness at different stages (for choosing materials), the likely variation in students' temperaments and development (with some typical profiles and problems), and when to focus on process and when on product. These qualifications can be conveyed through teacher training, staff discussions and some background reading, as well as experience.

It will now be clear that this reinforced training programme presupposes more investment in personnel, time, study and probably funding than before. This depends on the politics and economics of interpreting, institutional policies and arguments that can be made in defence of proper high-quality interpreter training. For course leaders and administrators, critical parameters to watch in finding the right balance between quality, feasibility and sustainability include curriculum load (the risk of overload and stress if too many components, like knowledge or language enhancement modules, are added), and the availability, motivation and recruitment of instructors.

These aspects are beyond the scope of this paper; but clearly, the closer the results of training can be seen to fit actual market needs, the stronger the case for supporting quality training. Hence the need for more research on reception, for schools to keep abreast of short and medium-term language needs and heed signals from employers. Realism, simulation, market-relevant teaching and credible certification will all help to make interpreter training, and interpreting studies, useful and sustainable.

6. Conclusion

In this paper we have compared the potential of research and theory to influence the practice of interpreting directly and indirectly, through training. We suggest that for various reasons, to do with basic methodological difficulties as well as transposition to a complex reality, valid direct applications of conventional research to practice are not yet within reach and that the most effective conduit through which theory and research can impact on practice is through their contribution to training, by upgrading and enriching the incremental apprenticeship model to make interpreter training more realistic, accountable, and sensitive to individual variability. Training excellent interpreters is the best 'proof of the pudding' that our theory and understanding of interpreting, from its different and complementary cognitive and social-interactional perspectives, is relevant. To enrich the training effort, we need to draw on both cognitive and educational theory, without underestimating the need to adapt them to this highly specific application. This should be feasible with the commitment of course leaders and instructors, and the support of administrators and funding authorities.

References

Anderson L. (1994) "Simultaneous interpretation: Contextual and translation aspects", in S. Lambert and B. Moser-Mercer (eds.), *Bridging the Gap: Empirical Research in Simultaneous Interpretation*, Amsterdam/Philadelphia, John Benjamins, 101-120.

Chernov G.V. (1994) "Message redundancy and message anticipation in simultaneous interpreting", in S. Lambert and B. Moser-Mercer (eds.), *Bridging the Gap. Empirical Research in Simultaneous Interpretation*, Amsterdam/Philadelphia, John Benjamins, 139-153.

Chernov G.V. (2004) *Inference and Anticipation in Simultaneous Interpreting*, Amsterdam/Philadelphia: John Benjamins.

Collados Aís Á. (1998) *La evaluación de la calidad en interpretación simultánea: La importancia de la comunicación no verbal*, Granada: Editorial Comares.

Donovan C. (2008) "Closing the expertise gap: a concrete example of guided reflection on a conference experience", *Forum* 6(1), 35-58.

Durand C. (2005) *La Relève : étude prospective*.
www.aiic.net/ViewPage.cfm/article1509.htm (accessed 31.10.2010).

Gile D. (2001) "Interpreting research. What you never wanted to ask but may like to know". AIIC website.
www.aiic.net/ViewPage.cfm?page__id=341 (accessed 30.10.2010).

Gile D. (1995/2009) *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam/Philadelphia, John Benjamins.

Gran L. and Dodds J.(eds) (1989) *The Theoretical and Practical Aspects of Teaching Conference Interpretation*, Udine, Companotto Editore.

Hale S. (2004) *The Discourse of Court Interpreting: Discourse Practices of the Law, the Witness and the Interpreter,* Amsterdam/Philadelphia, John Benjamins.

Kellerman S. (1990) "Lip service: the contribution of the visual modality to speech perception and its relevance to the teaching and testing of foreign language listening comprehension", *Applied Linguistics*, 11(3) 2, 72-280.

Moser-Mercer B, Künzli A. and Koraç M. (1998) "Prolonged turns in interpreting: effects on quality, physiological and psychological stress" (Pilot study), *Interpreting*, 3(1), 47-64.

Pöchhacker F. (1994) *Simultandolmetschen als komplexes Handeln*. Tübingen, Gunter Narr.

Setton R. (1999) *Simultaneous Interpretation: A Cognitive-pragmatic Analysis*, Amsterdam/ Philadelphia, John Benjamins.

Setton R. and Motta M. (2007) "Syntacrobatics: quality and reformulation in simultaneous-with-text", *Interpreting* 9(2), 199-230.

Setton R. and Guo Liangliang A. (2009) "Attitudes to role, status and professional identity in interpreters and translators with

Chinese in Shanghai and Taipei", *Translation and Interpreting Studies*, 4(2), 210-238.
Sperber D. and Wilson D. (1986/1995) *Relevance: Communication and Cognition*, Oxford, Blackwell.
Wadensjö C. (1998) *Interpreting as Interaction*, New York, Addison Wesley Longman.