



THE LANGUAGE OF PAIN IN APPLIED LINGUISTICS

REVIEW ARTICLE OF CHRYSSOULA LASCARATOU'S *THE LANGUAGE OF PAIN* (AMSTERDAM AND PHILADELPHIA: JOHN BENJAMINS, 2007)

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Studies of the language we use to talk about pain – “pain language” – have hitherto been mainly confined to medical disciplines, and there has been little research in the literature in linguistics and applied linguistics. The appearance of a major new study on pain language, Chryssoula Lascaratou's *The language of pain*, presents an opportunity for a review of the book in the context of an overview of this highly complex inter-disciplinary field. The quantitative, word-based McGill Pain Questionnaire is summarized as a diagnostic instrument from the point of view of language, and compared to Lascaratou's corpus-based investigation of the use of pain language in Modern Greek conversations between doctors and patients. The focus of this research is on the lexico-grammatical structuring of pain language, and the representation of pain in terms of cognitive metaphors.

INTRODUCTION

The language we use to talk about pain – “pain language” – has been only just visible in the literature in linguistics and applied linguistics. The appearance of a major new study on pain language, Chryssoula Lascaratou's *The language of pain*, presents an opportunity for a review of the book in the context of an overview of this highly complex inter-disciplinary field.

It is widely accepted that pain is a universal human phenomenon. It is also subjective, as we find in the authoritative statement by the International Association for the Study of Pain (IASP):

Pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life [...] pain is that experience which we associate with actual or potential tissue damage. It is unquestionably a sensation in a part or parts of the body but it is also always unpleasant and therefore also an emotional experience [...] pain [...] is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause. (IASP, 1979, p. 250)

Pain is private. It remains internal to the experiencer. We learn pain language by imitation and imputed analogy: by observing the behaviour of more competent language users, inferring their pain states from their behaviour, and by analogy incorporating it in our own pain language use.

Pain exists in several different forms: physical pain, which may have an evident cause in the form of injury or damage (“nociceptive pain”); neuropathic pain, which does not always have an obvious physical cause; and mental or spiritual pain. This third category overlaps with psychiatric states like depression, which are also subjective. But here the causes and perpetrators are usually psychosocial in terms of life experiences, or biochemical, in terms of imbalances in substances like serotonin, or both. In contrast, in the case of physical pain there is an imputed but not necessarily proportional causal relationship between the pain sensation and tissue damage or dysfunction, at least initially. Addressing and redressing this situation is the business of modern pain medicine.

A corollary of the subjective nature of pain is that there is no objective, experimental, biomechanical, biochemical, electrical or behavioural test for the existence, intensity or nature of pain. Health professionals – doctors, nurses, therapists, occupational therapists, psychiatrists, pain physicians – may triangulate the patient’s pain symptoms by measuring heart rate, blood pressure, sweating, response to manipulation, physical appearance, language, and other expressions of pain. Or rather, they triangulate the pain symptoms that the patient evinces and expresses, since one of the key channels is language. But even here the expressed symptoms can mislead. One can have symptoms without an identifiable cause, as in many cases of persistent chronic pain (“chronic” is commonly defined as longer than 12 weeks). There is also the well known instance of “phantom pain”, where pain is felt in limbs or body parts which have been surgically or otherwise removed. *Mutatis mutandis*, one can also have no pain symptoms in spite of evident physical damage, as often happens with soldiers in battle or athletes in competition: the pain of an injury may only become manifest when the stress of the battle or the compet-

ition is over. And one can dissemble about pain, as happens when a winner in a large court claim for physical damages is later discovered to be following a normal physical existence unhampered by the alleged pain.

The objective evidence for pain, then, is equivocal. And yet its symptoms, in the experience of the person in pain, are often far from equivocal, and in need of urgent professional intervention by a pain specialist. From triage to diagnosis, treatment and management, there is clearly a need for the fullest possible understanding of the nature of the individual's pain in all its different dimensions. The standard definition of pain, as approved by the IASP, is:

An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.
(Merskey and Bogduk, 1994, p. 210)

This definition, which represents the broad consensus of current pain professionals and was revalidated in 2008 by the IASP, established the tripartite nature of pain as a biopsychosocial phenomenon, combining biology, psychology and the social dimension. The second part of this definition legitimizes the role of language in pain in research and practice, an area which is the designated focus of the "PainLang" Pain Language Research Group at the University of Queensland (<http://www.uq.edu.au/painlang/>).

It is only in the last two centuries that pain has become treatable in the contemporary sense, and even tractable in terms of diagnosis and therapy. Before that time, theologically and in practice, pain was something ordained, something to be expected: "In sorrow [=pain] thou shalt bring forth children" (Genesis 3:16). Queen Victoria was widely criticized when she took ether in childbirth, since this was considered to be flaunting the precepts of the Bible. The meanings attributed to pain were both negative and accepted, and were typically a "necessary trial, unpleasantness preceding some greater good, punishment, or fate" (Rey, 1995, p. 2): the Latin word *poena*, etymologically the origin of English *pain*, meant "punishment". Christian traditions of martyrs (Mitsi, 2008) celebrated pain as a means of salvation. The contemporary medicalization of pain has seen its removal from the doctrinal or theological. It is now a symptom which is susceptible to treatment by biological or pharmacological means, and a symptom in its own right, not merely an indication of some other somatic† (daggered references may be checked at http://en.wikipedia.org/wiki/Main_Page) or psychological malfunction (Cousins, 2007).

PAIN AND LANGUAGE

With a few exceptions, the language of pain has not been much addressed by linguists or applied linguists (Diller, 1980; Halliday, 1998; Lascaratou and Hatzidaki, 2002; Lascaratou and Marmaridou, 2005; Marmaridou, 2006). And yet in its interdisciplinary span, pain language is a prototypical example of a problem of applied linguistics. It ranges from linguistics, applied linguistics and literary studies to anthropology and psychology, to theology, to social work and communication studies, to medicine, the therapies, dentistry, pharmacology and nursing.

The role of language in the study and management of pain, however, has been dominated by medicine and psychiatry, and by the paradigm of the McGill Pain Questionnaire ("MPQ": Melzack, 1975), a word-based instrument widely used in medical contexts for the diagnosis, measurement and assessment of pain. It arose from Melzack's observation of patients in clinical practice. Melzack and Torgerson (1971) prepared the way by assembling and then testing 102 English pain descriptors, all either base adjectives like *tender*, or modifiers derived from *-ing* participles like *splitting*. The descriptors were arranged in four macro-categories which were later taken up in the MPQ: sensory, affective, evaluative, and "miscellaneous". There was a strong emphasis on ranking the words in order of severity of pain, and on moving towards a quantitative measuring instrument. The final MPQ (Melzack, 1975) kept the four macro-classes, but reduced the number of descriptors to 78, with six additional intensity words (*no pain, mild, discomforting, distressing, horrible, excruciating*). The 78 descriptors were arranged thematically in the same four macro categories as in Melzack and Torgerson (1971), with 10 subclasses in "sensory", five in "affective", one in "evaluative" and four in "miscellaneous". Each sub-category's descriptors were ranked in order of intensity: for instance, the first of the "sensory" categories has six descriptors, which are, in order: *flickering, quivering, pulsing, throbbing, beating* and *pounding*. Some sub-categories have only two, as in *tiring, exhausting* of group 11, the first of the "affective" lists. Integers are assigned to the descriptors in each sub-category in order of intensity, from 1 for *flickering* to 6 for *pounding*. Patients choose at most one from each sub-category, and the scores are summed to yield a Pain Index.

Subsequent work in the MPQ paradigm has been concerned with experimental validation, usually with groups of patients, either in specific medical conditions, or more widely concerning patients in pain; and with selective reconsideration of the word-repertoires of pain instruments. Experimental approaches have involved detailed psychometric testing, with significant controversy over factor analysis (Holroyd et al., 1992; Gracely,

1992). Attempts to rationalize the 78-adjective original MPQ include Melzack's (1987) own Short Form MPQ with 11 sensory and four intensity terms and Fernandez' "parsimonious" list of 38 terms (Fernandez & Boyle, 2001; Fernandez & Towery, 1996; Towery & Fernandez, 1996). Wilkie (1990), in an analysis of 51 studies using the MPQ, found that only 19 of the original 78 words were used by more than 20% of the participants. Furthermore, only 4 terms (*throbbing*, *aching*, *sharp* and *burning*) were found in Fernandez' list, Wilkie's distilled list and the Short Form MPQ. The repertoire of pain descriptors appears anything but settled.

The thrust of the MPQ, especially approaches to its experimental validation and in its quantifiable emphasis, have been consistent with the growing influence of Evidence-Based Medicine[†]. Evidence-Based Medicine focuses on objective, experimentally testable and quantifiable evidence, in contrast to the older holistic traditions of medicine. The modern objectification of pain symptoms, then, is part of a change in both perspective, practice and philosophy, and aligns pain with other known viral, bacterial, musculoskeletal, biochemical and endocrinological disorders or malfunctions. The status of pain has changed vis-a-vis these disorders or malfunctions. Given that it is now recognized that pain may be present without obvious physical cause, pain is now viewed as a treatable symptom in its own right (Cousins, 2007). In this context the place of pain language, and its utility, are significantly enhanced.

From a language specialist's point of view the design of the MPQ is fraught with problems (Sussex and Strong, unpublished MS). To take just the six descriptors listed above from the first "sensory" list: *flickering*, *quivering*, *pulsing*, *throbbing*, *beating* and *pounding*. Is the ranking correct, from weakest to strongest? Are the six terms semantically equidistant, and not overlapping? Does it make sense to add, say, a 6 for *pounding* to a 2 for *exhausting* in list 11, or are we summing two different entities? And this without venturing outside lexically-defined sets of descriptors taken as being context-, socially-, culturally- and communicatively neutral. We return to these matters below.

Complementary to the quantitatively-focused word-based MPQ tradition, which has dominated medical practice, but has been almost ignored in the social sciences and linguistics, both pure and applied, there have been two countervailing trends in studies of language and pain. One of these trends is philosophical, and is most characteristically identified with Wittgenstein. It has had most impact on the philosophy of language and the philosophy of emotions. Wittgenstein is principally concerned with private experience and public language. "There is no pain [...] without pain behaviour" (1953/1989: p. 97, §281). The pain behaviours that we witness, both linguistic and non-verbal, allow us to infer something about the pain of others. But one can only be certain of the existence of

one's own pain. This work has had only very marginal resonance in the medical pain literature: the Medline bibliographic database returns zero hits for "MPQ and Wittgenstein".

The other counterbalancing tradition involves linguistic studies, not so much of the lexical profile of pain, but its grammaticalization, or to be more precise, its lexico-grammaticalization. The first major paper in this direction belongs to Halliday (1998). This unjustly under-cited paper, in the Systemic-Functional framework, investigates the construal of pain in English. Halliday (1998, p. 11) puts the lexical-grammatical interaction like this:

What type of element is 'pain'? Is it process, participant, or circumstance? Is it a quality of something? If participant, or quality, is it construed circumstantially? Does it involve the relationship between one process configuration and another? And, in terms of any of these elements, is it simple or complex? And is it consistently construed in one way, or does it vary among different modes of construal? In other words, where does pain fit into the configuration of everyday experience?

Halliday's framework reveals pain as a quality, a thing and a process:

Quality (adjective): *my throat feels sore, the wound feels painful*

Thing (noun): *I've got a headache, do you feel any pain?*

Process (verb): *my knee hurts, I hurt, it hurts, I've hurt my knee*

Pain verbs (processes) show different construals. While the verb *hurt* is construed as Process in all these examples, the subjects have different roles and interpretations. In *I've hurt my knee*, for instance, *I* denotes a non-volitional Actor, and *my knee* is a Medium – Goal, a grammatical configuration quite different from *my knee hurts*. As is evident, the MPQ treats only of one of the three categories – Quality / adjectives – and not a dominant one at that.

LASCARATOU'S ARGUMENT

The perceptions generated by Halliday have now been taken up in Lascaratou's (2007) study of language and pain in Modern Greek. This book provides not only an empirical foundation to earlier research (Lascaratou and Hatzidaki, 2002; Lascaratou and

Marmaridou, 2005), but also provides a coherent theoretic framework for the grammatical-lexical exploration of data of substantial size and scope. Her goal is unlike Melzack and Torgerson's (1971) in three principal ways: Lascaratou's is a corpus-based study of nearly 70,000 words from 131 conversations between doctors and patients, so that it involves explicitly interactive language; it is concerned with the lexico-grammatical expression of pain, not merely the lexical, as in the MPQ; and it investigates supra-word expressions of pain at the phrase level and beyond in the metaphors of cognitive semantics.

Her theoretical and analytical position emerges from Halliday (1998) in her Chapter 6 "The construal of pain as process", and Chapter 7 "The construal of pain as thing-participant". Chapter 8 "Pain and metaphor" is an application of cognitive semantics to pain language. We now consider these arguments in more detail.

PAIN AS PROCESS / THING-PARTICIPANT / METAPHOR

Working inductively from the data, Lascaratou finds a fit with Foolen's (1997) proposal for the expressive function of language: that ideas and cognition are expressed through words and signs, and emotions through cries and gestures. Apart from exclamations of pain, the linguistic structure most associated with direct, intense, personal expression of pain is verbs, especially intransitives, and specifically the 1 Person form *ponao* "I hurt" and the 3 Person *ponai* "(it) hurts":

Intransitive-personal: *ponao* (*eðo*) "I hurt (here)"

Intransitive-impersonal: *ponai* (*eðo*) "it hurts (here)"

Intransitive + body-part: *to xeri mu* (*mu*) *ponai* "my arm hurts / my arm's hurting (in me)"

Transitive-impersonal: *me ponai eðo* "it hurts me / it's hurting me (here)"

Transitive + body-part: *to xeri mu me ponai* "my arm's hurting me"

These five most frequently observed verbal constructions in the corpus followed the same frequency ranking in the speech of both doctors and patients, with the first, Intransitive-personal, construction amounting to almost 50%. The 1 Person "avowals" and the 3 Person "utterances" belong at the expressive end of the gradient: "the most intense construal of the experiencer's active involvement in the painful sensation, a more direct form of voicing automatic reactions" which contributes to the interpretation of the pain

as “an inner activity or a self-induced processual event” (2007, p. 183). Lascaratou proposes a gradient from interjections through verbs as the most instinctual end of the cline, to nominal expressions with the noun *ponas* at the other end, constituting the most cognitively processed expression of pain.

Typically – again following Halliday – the nominals have a more elaborated semantic network. The noun *ponas* “pain” may be construed as a possession:

arxisa na exo frixtus ponus “I started having terrible pains”

and, inter alia, has variable location within the body:

o ponos ine mono sto γονατο “is the pain only in the knee?”

Nominal *ponas* expressions are longer and structurally more complex: they give ample evidence of greater cognitive processing and elaboration when compared to typical verbal expressions with *ponao / ponai*. The Greek data show 60% of pain expressions involving verbals; 38.5% with a nominal denoting a participant; and only 1.6% adjectives denoting a quality. Furthermore, in Lascaratou’s interpretation, nouns express not the pain but a conceptualization of the pain. But in 57% of pain expressions it is the suffering person, not the body part, which is referenced. While pain may be cognitively localized, it is overwhelmingly the holistic individual who is involved in experiencing and expressing pain.

If pain’s grammar is implicated in its management in terms of speech acts and cognitive engagement, its semantic structure is involved in the representations which emerge of its cognitive networking in terms of metaphor. Kövecses (2000, 2008) has produced a framework for the characterization of emotion and body metaphors. Lascaratou incorporates this concept into her model of pain as

[...] a highly distinguishable undesirable possessed entity and as an external-to-the-self moving force capable of invading the individual as an uninvited intruder, ultimately acting as a malevolent aggressor, a torturer, and an imprisoning enemy. (2007, p. 140)

This notion of pain places it outside the sufferer’s self, as an inimical agentive power. The sufferer’s body is seen as a container for pain:

esθanome ke pali pono eδo mesa “I’m feeling pain again here inside”

On the other hand, the externalization of pain can be interpreted as a way of objectifying it and making it tractable, something which can be treated and removed, something that needs to be expelled from the body.

WIDER ISSUES

It is not possible, in a short account of the key ideas of *The language of pain*, to give anything more than an overview. Lascaratou's results immediately pose a series of consequent questions outside the framework of her Greek data – a framework which implicitly presents an agenda of research in pain language. Lascaratou's contribution is to anchor firmly the lexico-grammatical and conceptual-cognitive / metaphorical domain as one of the key linguistic vectors of pain language. I select just five key issues which arise, directly and less directly, from her analysis.

1. THE LEXIS OF PAIN

The MPQ approach is based almost wholly on one-word adjectives taken out of any social or communicative context. It therefore makes a number of implicit (and so far unexpressed) assumptions which are in need of linguistic and semantic verification, as well as testing against Lascaratou's results. To be sure, the lack of an objective, testable referent makes this unlike the kinds of psycholinguistic and semantic tests for definitions and referential robustness which one would invoke for regular concrete nouns, say. But it is certainly possible to undertake typological and contrastive studies of the lexical resources for pain expression in different languages.

2. COMPARATIVE LEXICO-GRAMMATICAL REALIZATIONS OF PAIN EXPRESSIONS

Wierzbicka (1992) construed the verbal expression of emotions as high on the dynamic, active and public scales, which correlates neatly with Lascaratou's interpretation of verbal pain expressions as being closer to the instinctual, visceral expression of pain. Greek is like Russian in this respect:

I suggest, therefore, that it is precisely because verb constructions offer a more direct and social processual framing of pain that they are typically preferred in Greek against the most neutral and passive adjectival frames. (Lascaratou, 2007, p. 184)

Given that the MPQ has nothing to do with grammar or discourse, we cannot make direct comparisons with English without further investigation; but it should make us ask

whether the overwhelming emphasis on adjectival descriptors in the MPQ is showing only a part, and possibly not even a representative part, of the spectrum of pain expressions. It also poses a major question of translation equivalence as the MPQ is rendered in Modern Greek (Georgoudis et al., 2001): how is one to move from an adjectival, state-based framework to one dominated by verbal expressions of pain?

3. METAPHOR, SIMILE, PARAPHRASE, AVOIDANCE LANGUAGE

Lascaratou takes “metaphor” in the cognitive linguistic sense. The sense of metaphors as a literary trope, where they interact with similes, also offer important additional insights into areas of pain language which are broadly consistent with Lascaratou’s lexicogrammatical + cognitive metaphor framework, but go well beyond the lexical reach of instruments like the MPQ. There have been a number of reports on the use of similes and metaphors in pain reports: in fibromyalgia† patients (Hallberg & Carlsson, 2000; Söderberg & Norberg, 1995; Thomas, 2000), children (Kortelnuoma & Nikkonen, 2006), and nursing (Froggatt, 1998). These results have been independently confirmed by members of the PainLang team at the University of Queensland. Both data sets occurred in open-ended response formats. One set of data involved recollected pain (Strong et al., submitted MS), and the other to current pain during an experimental task with the cold pressor† apparatus (Binzer et al., submitted MS). 34% of the respondents spontaneously used similes, a frequency high enough to warrant special attention. Metaphor and simile, at this level, are not simply additions or embellishments to more “basic” pain descriptions, but an integral part of the patients’ attempts to provide an insightful and true account of what they are going through. It is doubtful whether there is another semantic domain, outside poetry, where spontaneous use of simile and metaphor would reach this level. It suggests something of the incoherent and amorphous, but also imposing and imperative, nature of pain and – as Scarry (1985, p. 4) noted in a celebrated passage – its uncomfortable fit with language:

Physical pain does not simply resist language but actively destroys it,
bringing about an immediate reversion to a state anterior to language,
the sounds and cries a human being makes before language is learned.

4. DISCOURSE

There is already a significant body of work on doctor-patient discourse, as well as discourses between patients and other health-care professionals like nurses, midwives, occupational therapists, physiotherapists, dentists, psychiatrists (especially pain specialists)

and others (Heritage, 2006), including doctor-patient communication across cultural boundaries (Pauwels, 1990). Lascaratou has shown, from a large corpus of doctor-patient interactions, how pain language is not merely a matter of descriptive diagnostic labels, but rather concerns interactive, dynamic communication, involving *inter alia* a scale from instinctual-expressive to cognitively-processed (verb to noun) selection which interacts powerfully with quantitative data about grammatical usage.

5. SOCIAL AND CULTURAL-COMMUNICATIVE ISSUES

The already substantial literature on gender differences in language merits attention in the context of pain language discourses. Members of the PainLang research group (Strong et al., unpublished MS) have shown clear gender differences in pain language in a recalled-pain narrative task, and there is other published evidence concerning gender and pain (see Robinson et al., 2001). Emotional discourses are known to involve complex differences across cultures (Pavlenko, 2002). Pain language discourse (see above) is in need of cross-cultural investigation, and specifically inter-cultural discourse investigation.

SUMMARY: AN AGENDA AHEAD

There is a double benefit in these investigations. On the one hand the experience and expertise of applied linguistics is brought to bear on a key social and personal question. And on the other the domain of pain offers a particularly rich – as well as often difficult and problematic – area for the exploration of themes like gendered language and power dynamics. It is, indeed, difficult to see how the pain language agenda can progress without substantial involvement of social scientists. What Lascaratou has achieved is a major counterbalance to the quantitative, word-based paradigm of the MPQ approach. Taking Halliday's functional grammatico-lexical categorization of pain construals as quality, thing and process, she has added a quantitative foundation to his corpus-based, but essentially qualitative, approach; she has elaborated the grammatico-lexical framework into a more articulated and comprehensive model incorporating the metaphor structure of cognitive semantics; and she has grounded the whole investigation in interactive discourse. These features constitute a substantial challenge to the MPQ paradigm. The field of pain language has become more complex, more interdisciplinary and much more demanding.

When we consider its disciplinary outreach and centripetal consolidation, applied linguistics is particularly relevant to pain language. This observation is as true of the subject matter of pain language as it is of questions of taxonomy, analysis, methodology

and theory. The bibliographic record demonstrates conclusively that there is indeed a significant need for cross-disciplinary communication about the language of pain. The extent of the balkanization of pain studies can be gauged from the fact that Medline, the bellwether online bibliography in the medical and paramedical fields, contains no reference to either M.A.K. Halliday or Lascaratou. Medline does list Diller (1980), presumably because it was published in the leading journal *Pain*. The archives of *Pain* itself make no mention of “grammar” other than Stanford et al. (2005). On the other side of the disciplinary canyon, the authoritative Linguistics and Language Behavior online bibliography has only two rather dated mentions of the McGill Pain Questionnaire (Craig, 1978; Lehl, 1983), as against 1,057 in Medline. LLBA does have 163 hits for “pain and language”, but only approximately 25% deal with the language of pain in the sense discussed here (and 40% of those address Wittgenstein’s view of pain). Halliday (1998) and Lascaratou (2007) therefore span important disciplinary space. Applied Linguistics is probably one of the best positioned discipline areas to continue this work.

Applied disciplines like Applied Linguistics and Engineering typically deal with real-world problems. A 2007 study of pain by Access Economics demonstrated that pain costs the Australian economy \$36 billion a year. That is equivalent to 4.4% of Australia’s GDP. Crass though such numbers may be, there would be few topic areas within Applied Linguistics with such resounding economic credentials as pain language. And that without addressing the elegance, complexity and depth of the intellectual questions which Lascaratou has raised. But this is going to be a complex task. As Halliday (1998: 29) notes:

It is the construal of pain in the grammar that marks it out as a uniquely complex area of human experience: one that is unlike anything else.

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