

JUMPING TO CONCLUSIONS:
“LANGUAGE LOSS” VERSUS “LANGUAGE IMPAIRMENT”

Roger Wales

(La Trobe University, Bundoora, Victoria, Australia)

ABSTRACT

This paper discusses the impact of different metaphors of language dysfunction, with particular notice taken of the contribution of Marshall's work. This is especially the case regarding the notable paper on semantic error patterns (Marshall and Newcombe, 1973), and his later commentary on Chomsky's *Rules and Representations* (1980) with his elaboration of the conceptual commitments of *The New Organology* (1980). Examples of language performance provided by two sets of studies are used to illustrate the view that talk of language “loss” is hard to differentiate from the effects of concomitant processing mechanisms such as working memory. These examples are taken from studies of English and Turkish dementia of the Alzheimer type (DAT) patients (March, 2004), and temporal lobe epilepsy (TLE) patients (Field, 2001). Much contemporary neuropsychological research seems focussed on issues which assume that we already know how to describe the behaviours and processes we are interested in, and thus we can now concentrate on how and where in the brain these processes are handled. This perspective is examined from the points of view both that we do not yet have a sufficiently precise application of descriptions which utilise Linguistic constructs, and also that the available models of such processes as memory do not yet allow us to interpret task effects independently of the theoretician's intuitions.

Key words: language loss, language dysfunction, language organ, dementia of the Alzheimer type, temporal lobe epilepsy.

First, an anecdote. The occasion, our first paper together. John Marshall employed by the Medical Research Council (MRC) in Oxford (Psycholinguistics Research Unit) and myself in Edinburgh. Whilst discussing issues by phone (long before email was universal, though in this instance it wouldn't have made much difference!), we got cut off. Since the MRC paid if John Marshall rang I waited for him to get back to me and eventually he did so. Recognising his social responsibility, he rang more or less immediately.

A standard English female voice told him:

All lines from Oxford are engaged, please try later.

So he waited a while and tried again. The same voice and same message. So he waited five minutes and tried yet again. The same voice:

All lines from Oxford are engaged, please try later.

John: *Bloody computer.*

I'm not a bloody computer!

As always, the data do not come with little interpretative labels on them. It is in part because of this that the metaphors we use can be critical in determining if and when we think we have interpretative traction. It is a truism of historical Psychology that there are different ways in which variations in responses can be construed. In one tradition, usually associated with experimental designs, such variation is seen as “error”. In others it is seen as a source of information, often in contexts based on correlations. When we examine the metaphors used for giving interpretative

frameworks for variations from “normal” language use we find a great number of candidates, especially if the variation can be construed as being occasioned by deviations determined by “disturbance”. This is especially so if the disturbance is seen as conditioned by brain dysfunction.

A few examples of the ways in which the metaphor of language disturbance has been referred to include: Caplan (1992), “Language breakdown”; Goodglass (1993), “Language dissolution”; Stengel (1963), “Language distortions” (with respect to schizophrenia in this case); Shallice (1988), “Language deficits”. Marshall and Newcombe (1980) in their opening historical *salvo* to *Deep Dyslexia* (Coltheart et al., 1980) refer to “loss” (a moment of aberration?) (of course in the famous 1973 paper they had been careful to stipulate that they were concerned with *error patterns* which were individually consistent yet different from each other).

The justifiably famous paper of Marshall and Newcombe (1973) is being appropriately feted by others in this symposium: for example by Coltheart et al. (1980). Each of these addresses specific aspects of the paper's influence. On a wider front however, the impact of this paper was also profound. It suggested that where there were “errors” of word recognition these might in fact have cognitive coherence. The details of whether the patients were operating in the same way, with the same mechanisms, were and are of considerable interest and importance. This is so

regardless of whether the basis of such similarities or differences is “semantic”, “visual”, or some product of statistically learned relations between the relevant word sets.

However, the wider possibility that impairment (the ‘error patterns’) was “simply” that, rather than egregious “loss” of representation was itself ground breaking. The results reported by Marshall and Newcombe (1973), and the direct inference that the representation of language was in itself unimpaired potentially changes the way that such data are to be interpreted. In particular, they challenge the conjunction of representation and process that imbues as thoughtful and thorough a book as that of Shallice (1988). Let us take this volume as one of the best representatives in the field. In the latter, language is treated as if it is composed of three subcategories: orthographic, phonological and semantic; each of these being elements in the processing of “words”. While the sophistication and coverage of cognitive functions is superb, such analysis begs a numbers of questions. Is language intrinsically about processing “words”? If so, what are the latter? In particular is there some priority to words over say sentences (or vice versa, as much of contemporary Linguistics would suggest)? Is there any justification for ignoring the convention that speech has natural priority over reading (and writing)? (is one such justification the reported single case study of Tarzan learning to speak on the basis of learning to read?). If we are to look for patterns of “loss”, we surely need independent specification of what that loss might involve. The same story is, of course, going to be true of any impairment of cognitive mechanisms which are said to “underlie” such loss (or whatever our chosen metaphor may be). Perhaps part of the problem here is that we are tempted to believe that we know what language is. Its transparency makes it hard to bring into exact focus. The situation is not helped by appeals to “phonological” processes which are based on the self-evidence of “phonemes”: a linguistic currency which has been under discussion, if not explicitly rejected, for nearly half a century! Part of the questioning has rested on the connection between the notion of the phoneme and orthographic correlates. In terms of making sense of reading, clearly such a conjunction allows for some degree of circularity. Especially so if the source of the phonemic analysis is the intuition of the psychologist, without regard to the careful constructions of the phonemic linguists. It seems an especial ground for regret that the phonological theories developed over the past half century are largely ignored in the area of language pathology. Such theories might include: generative feature theory of Chomsky and Halle (1968); articulatory gesture theory of Browman and Goldstein (1989); or autosegmental phonology, Goldsmith (1990). It is not as if there is no empirical evaluation of such theories; the “Papers

in Laboratory Phonology” is at least to volume 6 in published form (Local et al., 2003). Without reference to such detailed linguistic analysis, the use of phonological and orthographic categories to “explain” data seems seriously wide of the mark. And that is while assuming that description and analysis need proceed no higher than the level of the word (whatever that may be in linguistic rather than orthographic terms).

Thus, the issue of whether the “loss” is that of language or the mechanism/s of processing language, points directly to the need to be able to specify what language and those processing mechanisms might be. It is not as if there are not significant and deep theories to guide such a discussion. But at present they are not embedded in either self-evidence or the structure of models of psychological mechanisms.

Of course, to discuss the relation between these linguistic structures and the mechanisms which enable their processing we need similarly precise and detailed theoretical accounts. For example, there is a need to be able to specify what “memory” is, and there are a number of fine studies aiming to fill this void. Excellent as many are, they do not seem to fill the concomitant need to be able to specify how tasks “measuring” the effect of processing relate to each other (what are the differential effects of measures of say, working memory?). There are, of course, multiple accounts of memory, some of which also address their relevance to language impairment data, but few if any of which allow straightforward interpretation of differential task effects. Its not just memory that can be implicated in the potentially circular interdependence of language and cognitive processes. Classic examples are provided by Luria (1973) who asserts that “patients with a lesion in the parieto-occipital region, although understanding perfectly well what is said to them in everyday speech, find it difficult to understand complex *logico-grammatical* structures... Both spatial and logico-grammatical relationships were difficult to grasp...” (p. 152). The issue is not of course simply the empirical claim but the interpretation. Is the problem the patients have one that is caused by their linguistic incomprehension, or some more general processing constraint? Is there any evidence that the spatial relationships can be handled independently of the linguistic expression of these? Is the problem with the logical relationships one of logic or linguistic expression? Are the latter concerns a consequence of how the patient’s knowledge has been tested? [Note also that after decades of claims that young children had difficulty with such logico-grammatical expressions is now being shown that children as young as two years can handle complex structures of this kind (c.f., Crain and Thornton, 1998; Chierchia et al., 1998; Gualmini, 2005)]. Thus, there is always the possibility that the “difficulty”

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات