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Pragmatic ability and disability as emergent phenomena

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Abstract

A holistic approach to pragmatic ability and disability is outlined which takes account both of the behaviour of individuals involved in the communicative process, and also of the underlying factors which contribute to such behaviour. Rather than being seen as resulting directly from a dysfunction in some kind of discrete pragmatic 'module' or behavioural mechanism, pragmatic impairment and also normal pragmatic functioning are instead viewed as the emergent consequence of interactions between linguistic, cognitive and sensorimotor processes which take place both within and between individuals.

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Introduction

'Pragmatic impairment' and cognate terms such as pragmatic impairment/ disability/ disorder/ and dysfunction have been used to refer to behaviours found in conditions as disparate as aphasia, Asperger's syndrome, autism, dementia, developmental language disorder, Down's syndrome, focal brain injury, frontal lobe damage, hearing impairment, hydrocephalus, learning disability, right hemisphere damage, schizophrenia and traumatic brain injury (Perkins, 2003). This might not be a problem if the behaviours thus referred to were the same across all of these conditions. Unfortunately they are not, and therefore the terms lack discrimination and are hardly adequate as diagnostic descriptors. We shall see below that the waters are further muddied by inconsistencies in the way the terms are used, and that neurolinguists and clinicians have apparently felt the need to embrace a broader semiotic view of pragmatics than most pragmatic theorists, although this has gone largely unacknowledged. This suggests that the phenomenon of pragmatic disability – and by implication pragmatic ability – is not adequately accounted for by at least some mainstream pragmatic theories.

What I shall outline in this paper is a holistic and emergentist approach to pragmatics which takes account not only of the behaviour of individuals involved in the communicative process, but also of the underlying factors which contribute to such behaviour[1]. One motivation for this is to meet the needs of clinicians who require a knowledge of the specific underlying factors in order to treat the resulting behaviours. But in addition, because clinicians' needs turn out to be more exacting than those of linguists in a number of respects, the provision of such an account can also inform pragmatics more generally by focusing attention on features of communicative interaction which are not adequately considered by current theories.

Dealing with clinical cases forces us to go beyond standard theories of pragmatics

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[1] This approach has been developed over a number of years (see, for example, Perkins (1998; 2000; 2002)) and a much more comprehensive account can be found in Perkins (forthcoming).

Virtually all pragmatics textbooks agree that in broad terms pragmatics should be defined as something like '(the study of) the use of *language*' (e.g. Green, 1989; Grundy, 2000; Leech, 1983; Levinson, 1983; Mey, 2001; Thomas, 1995; Verschueren, 1999; Yule, 1996). It is rather surprising, therefore, to find that a great deal of published work on pragmatic impairment appears to make no such assumption. Rather than an exclusive focus on language, it is common instead to find non-linguistic features of communication such as eye gaze, gesture, posture and social rapport described as 'pragmatic' even when they occur *independently* of language use. Dronkers, Ludy and Redfern (1998), for example, assume that pragmatic behaviour is isolable and distinct from linguistic behaviour, as is evident from the title of their article: 'Pragmatics in the absence of verbal language'. It would seem that many language pathologists, despite acknowledging mainstream pragmatics as their information source, at least covertly take a much broader and less exclusively language-oriented view than linguists – far closer, in fact, to Morris's original semiotic conception of pragmatics as "the study of the relation of signs to interpreters" (Morris, 1938:6). Why should this be so? Firstly, clinicians frequently encounter individuals with minimal linguistic capacity – for example, following a stroke – who are nonetheless able to communicate quite effectively using nonlinguistic and nonverbal means such as body posture, eye gaze and gesture (e.g. Goodwin, 2000)[2]. At the same time, they are equally familiar with the converse situation – for example, individuals with autistic spectrum disorder who are unable to communicate effectively despite having reasonably good linguistic abilities (e.g. Blank, Gessner, & Esposito, 1979). The key factor which differentiates such cases is the level of competence in a range of nonlinguistic cognitive capacities such as memory, attention and inference generation, and clinicians have thus tended to be far more aware than linguists of the role of cognition in pragmatic functioning (Perkins, 2000). A further motivation for a semiotic view of pragmatics comes from neurolinguistics, which suggests that much of what is commonly understood as pragmatic competence is controlled by the right cerebral hemisphere, as opposed to linguistic competence which is subserved to a much greater extent by the left hemisphere (Paradis, 1998). This apparent double dissociation between language and pragmatics evident in clinical research suggests that rather than focusing so

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[2] Indeed, therapy often concentrates on these spared abilities as a means of compensating for linguistic disability (Carlomagno, 1994; Davis & Wilcox, 1985).

exclusively on linguistic pragmatics, as linguists and pragmaticians have tended to do so far, it might be more fruitful to consider in a more integrated fashion the role of nonlinguistic as well as linguistic, and of nonverbal as well as verbal, competencies in pragmatic functioning. Thus we might define pragmatics generally as '(the study of) the use of linguistic and nonlinguistic capacities for the purpose of communication'. Some progress in this direction has been made by theories of pragmatics such as Relevance Theory (Sperber & Wilson, 1995) which emphasizes that language is one communication 'aid' among many, albeit a uniquely complex and central one. Also, the pragmatic significance of the way in which communication may be distributed across both verbal and nonverbal modalities has started to be addressed in the psychological, sociological and anthropological study of language (Clark, 1996; McNeill, 2000) and in the study of language development (Kelly, 2001). What has not yet been fully appreciated, though, is the unique insight into the nature of such an extended view of pragmatics afforded by the study of communication disorders.

Theoretical constructs and analytical frameworks from a range of approaches to pragmatics enable us to describe the behaviour of people with communicative impairments reasonably well, and are to some extent equivalent for descriptive purposes[3]. However, although theories of pragmatics provide a means of *describing* pragmatic impairments, the level of *explanation* they afford is rarely adequate for clinicians, in that it does not translate easily into clinical intervention. For example, in Transcript 1 the child might be *described* as breaking Grice's maxims of relevance, quantity (saying more than is required) and possibly manner ('be brief'), but such descriptive labels do not get us very far when trying to design a remedial programme. One can hardly tell the child to "stop breaking Grice's maxims"!

> *Transcript 1*
> *Adult*: and what's in this picture?
> *Child*: it's a sheep - on a farm - and my uncle's farm
> and it has babies - baby lambs
> and tadpoles - frogs have baby tadpoles
> but tadpoles don't have any legs - do they?

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[3] See Perkins (2003) for an analysis of a single clinical dataset using five different theoretical approaches.

but frogs have legs - and it was in the pond - and mommy
saw it …
(from Perkins, 2000)

What is needed in order to move beyond mere description is some account of the underlying factors which contribute to pragmatic impairment. As an illustration of this, consider Transcripts 2 and 3.

Transcript 2
Prompt: the man who sits on the bench next to the oak tree is our mayor.
Gary: amen

Transcript 3
Adult: can you think of any more?
Michael: a remote-controlled cactus

Transcript 2 shows the response of Gary, an 8 year old boy, to a prompt from the CELF sentence recall task (Semel, Wiig, & Secord, 1987), where the subject is required to repeat the sentence heard. The exchange shown in Transcript 3 is from a conversation between Michael, also aged 8, and an adult who has been eliciting names for pets. Several have been correctly named immediately prior to this. Gary's and Michael's responses may be described in similar terms as instances of pragmatically anomalous behaviour in that they appear to be irrelevant both in a Gricean and Relevance Theory sense. However, the underlying causes in each case are quite different. Gary has problems with verbal memory and syntactic comprehension. The prompt sentence is both too syntactically complex and too long for him to internally represent and retain in short term memory. He focuses instead on the final phrase 'our mayor' which he mishears and/or misunderstands and repeats as 'amen'. Michael, on the other hand, has a diagnosis of autistic spectrum disorder, and problems with social cognition make it difficult for him to take proper account of prior and surrounding context during conversation. His syntax and verbal memory, in contrast to Gary's, are normal for his age. Clearly, any assessment or intervention based solely on a superficial pragmatic description which failed to take account of these underlying differences would be less than adequate. What we need in addition is

a means of representing the underlying contributory factors, whether they be neurological, cognitive, behavioural or social, and the way in which they interact to produce what we perceive as pragmatic ability and disability. One way of doing so is to understand how pragmatics may be represented as an 'emergent' phenomenon.

Emergence

'Emergence' is the term applied to a process whereby a complex entity results from a set of simple interactions between 'lower-level' entities. For example, anthills result from the aggregate effects of millions of local, minor acts by ants, rather than from a grand design in the mind of some ant-architect (Johnson, 2001), and the time-telling properties of a watch depend on local interactions between a set of individually simple cogs and springs. As Clark (1997: 107) puts it: "emergent patterns … are largely explained by the collective behavior … of a large ensemble of simple components …, none of which is playing a special or leading role in controlling or orchestrating the process of pattern formation." Similarly, minds may be seen as "emergent properties of brains … produced by principles that control interactions between lower level events" (Chomsky, 2002:63, quoting Mountfield). Emergent processes can unfold across a range of time frames including those of evolution, embryology, the human lifespan and history, as well as during ephemeral events such as online cognitive processing and conversational interaction (MacWhinney, 1999). The study of emergence in cognitive science has led to a reappraisal of the discreteness and autonomy of a range of phenomena including individuals and the human mind. For example, Hutchins (1995) has shown that the cognitive characteristics of teamwork are not attributable to any single individual member of the team, and Clark (1999: 14) describes the human cognitive profile as "*essentially the profile of an embodied and situated organism*".

In the language sciences, emergence has been invoked as a way of explaining a wide range of phenomena including language development (Locke, 1993), developmental and acquired language disorders (Christman, 2002; Locke, 1994; 1997), the role of discourse in determining grammatical form (Hopper, 1998), diachronic language change (Givón, 1999) and language evolution (Knight, Studdert-Kennedy, & Hurford,

2000). Although emergence may be modelled particularly effectively using connectionist networks (Allen & Seidenberg, 1999) and is often linked to functionalist approaches to language (Bates & MacWhinney, 1989), it is also compatible, as noted by MacWhinney (1999), with generative approaches to language, which are typically opposed to functionalism and connectionism. In his minimalist program for syntax, for example, Chomsky regards "the traditional constructions – verb phrase, relative clause, passive, etc. – [as] taxonomic artifacts, their properties resulting from the interaction of far more general principles" (Chomsky, 1995b:17f.) and feels that "the apparent richness and diversity of linguistic phenomena is illusory and epiphenomenal, the result of fixed principles under slightly varying conditions" (Chomsky, 1995a). To take such a view is not to deny the heuristic value of such epiphenomenal constructs for observers in describing behavioural processes, but it does not necessarily follow that such constructs play any direct role for those participating in the process.

An emergentist account of pragmatic ability and disability

Far from being seen as emergent, pragmatics has for the most part been viewed instead as a distinct entity in its own right, either as a 'level' of language or a component of the linguistic system on a par with syntax, semantics and phonology. Some have gone so far as to characterize pragmatics as a mental 'module' in a Fodorean sense (Fodor, 1983) – i.e. a distinct and autonomous cognitive system which is domain specific, fast, automatic and informationally encapsulated. Kasher (1991), for example, argues that knowledge of basic speech act types such as assertions and questions and of conversational behaviours such as turn-taking and repair is modular; Sperber and Wilson (2002) equate pragmatics with a 'theory of mind' module which enables us to interpret others' intentions; and for Paradis (2003) the pragmatic module consists of the probablilistic reasoning processes carried out by the right cerebral hemisphere.[4]

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[4] It is interesting that there is so little overlap between these three different views. Whether one sees pragmatics as a module or not, the difficulties of definition still remain.

In contrast to the modular approach, the 'interactionist' view sees pragmatics as a functional or interactional phenomenon (see, for example, discussion in Craig, 1995; McTear & Conti-Ramsden, 1992; Penn, 1999). Bates and MacWhinney's (1982) Competition Model sees pragmatics as a function of the interplay between the information value of a particular form or pattern and its processing cost. Sperber and Wilson in their pre-modularist days were also more amenable to such a view when they described pragmatics as "not a cognitive system at all" but "simply the domain in which grammar, logic and memory interact" (Wilson & Sperber, 1991: 583). Both of these approaches focus on cognitive and linguistic interactions within the individual. Clark (1996), on the other hand, feels it is more important to focus on interactions *between* individuals, and regards pragmatics as a function of joint actions between people, a view which is also shared by proponents of Conversation Analysis (e.g. Schegloff, 1999).

The approach I will propose here is firmly within the interactionist tradition but adopts an explicitly emergentist perspective. What I argue is that instead of seeing pragmatics as some kind of discrete entity that exists independently of other entities with which it interacts (e.g. language, memory, attention etc.), it is better characterized as an epiphenomenal or emergent property of interactions between such entities. Pragmatics is what you get when entities such as language, social cognition, memory, intention and inferential reasoning collide in socio-culturally situated human interaction, rather than being instantiated or uniquely grounded in any single one of these. The emergentist model below builds on previous interactionist approaches by a) extending and being more specific about the range of interacting entities involved and the nature of their interaction; b) focusing simultaneously on interactions both within and between individuals; and c) providing a single account of both pragmatic ability and disability. It is motivated by the following five principles:

1. Pragmatics involves the range of choices open to us when we communicate – for example, what is said, how it's said, why it's said, when it's said, where it's said, to whom it's said, who says it and even whether anything is said or not.

2. Such choices are involved at all 'levels' of language processing, from discourse down to phonetics.

3. The choices are not exclusively linguistic, but involve the way communication is distributed across verbal and nonverbal channels.

4. In order to qualify as 'pragmatic', such choices must be motivated by the requirements of interpersonal communication.

5. There is frequently no direct link between an underlying deficit and a resulting pragmatic impairment. Rather, the latter may be the consequence of one or more compensatory adaptations.

It also involves the following three key notions:

1) **Elements**. These are the entities between which interactions take place, and are of two kinds: a) linguistic and non-linguistic cognitive systems, and b) sensorimotor systems. Some examples are shown in Figure 1[5].

Figure 1: Some cognitive and sensorimotor elements of pragmatics

PRAGMATICS			
Cognitive elements		**Sensorimotor elements**	
Linguistic	**Nonlinguistic**	**Motor output**	**Sensory input**
phonology prosody morphology syntax discourse lexis	inference memory attention social cognition theory of mind executive function affect conceptual knowledge	voice gesture gaze posture	auditory perception visual perception

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[5] Although identified by a single word or phrase, it should not be assumed that the entities listed are necessarily discrete modular systems or processes. It is likely instead that they are all emergent phenomena in their own right.

2) **Interactions**. These are the dynamic relations that occur between elements, and are motivated by the need to maintain a state of equilibrium within a given domain.

3) **Domains**. Interactions take place both within individuals – i.e. the *intra*personal domain – and between individuals – i.e. the *inter*personal domain[6].

There is no space here to provide a full account and justification of the model (for this, see Perkins, forthcoming), but an illustration of how it may be applied in a clinical case should serve to give a flavour.

An illustration

To illustrate the model, I have deliberately chosen a case of communication impairment which would not typically be described as involving a primarily pragmatic disability, but which nevertheless manifests features which are undeniably pragmatic in nature and would therefore need to be accounted for within any pragmatic theory or approach which aimed to be comprehensive. We shall see that to successfully incorporate such cases within a systematic pragmatic account will require a reevaluation of the nature of pragmatic ability and disability.

Lucy is four and a half years old and has a diagnosis of specific language impairment (SLI). Although she is of normal intelligence, her phonology and syntax are very primitive for her age and she often has problems in making herself understood. In conversation, she makes unusual use of gesture in two distinct ways. Firstly, when referring to objects and actions she typically accompanies her utterances with iconic signs, as in this conversation with Sara, an adult who she knows slightly:

Sara   wellies 'd be good for the snow wouldn't they? yeah I agree -
           anything else?

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[6] 'Domain' is a convenient way of referring to the scope of interactions, and the two mentioned here will suffice for present purposes. The situation is rather more complex, though. For example, the intrapersonal domain contains various sub-domains – e.g. the cognitive and sensorimotor – and the interpersonal domain is itself a sub-domain of the socio-cultural domain.

Lucy   [jɕ - glʊb] (*your – gloves*)   [waggles fingers gesturing gloves]

Sara   you'd need gloves for the snow

Lucy   [æn hæʔ] (*and . hat*)   [gestures pulling on a hat]

This is an extension of the iconic way gesture is sometimes used in conversation, and given Lucy's impaired phonology and grammar, it helps the interlocutor to be surer about what Lucy is saying. The second use of gesture is more atypical, and it seems to play a role for Lucy rather than the interlocutor. Lucy's speech is mostly syllable-timed and sounds rather staccato. Sometimes when she is speaking she taps out the rhythm of her utterance with her hand, as in:

Sara   what would you use a bucket for?

Lucy   p »put . »some»thing . »in . »the . »bu»cket   [tapping on the table in rhythm with her speech]

This would seem to be of little benefit to the listener, and appears rather to provide for Lucy a kind of prosodic and tactile scaffolding for her utterance, distributing it, as it were, across two modalities. Sometimes the two different uses of gesture appear to be conflated as in:

Sara   what's he wearing a bucket on his head for?

Lucy   »bu»cket . »on . »his . »head   [taps her head in rhythm with her speech]

and here only the iconic component is pragmatic. It is important to note that Lucy has not overtly been taught either of these uses of gesture.

Let us now examine the nature of Lucy's communicative weaknesses and strengths in terms of the model outlined above.

Pragmatics as choice

Lucy may be seen as pragmatically impaired by virtue of the fact that the range of linguistic choices open to her is more restricted than those enjoyed by her typically developing peers.

Pragmatics as choice at all levels of language

Lucy's specific restriction lies within the phonological, morphological and syntactic elements of her intrapersonal domain, though dysfunction of any linguistic element would limit the range of choices available for encoding and decoding meaning.

Pragmatics as choices across modalities

As shown in Figure 1, we have a wide range of resources to draw on in order to communicate including linguistic and nonlinguistic cognitive systems, signalling systems such as voice, gesture and eye gaze and perceptual systems such vision and audition. Our use of these resources is like a process of orchestration and the way meaning is distributed among elements and across domains is the very essence of pragmatics. In face to face conversation, for example, we constantly make choices not only about what and how much to signal linguistically, but also what and how much to encode using other signalling systems such as prosody, gesture, facial expression, eye gaze and body posture. Because Lucy's grammar and phonology are relatively primitive, she 'chooses' to allocate more resources to the gestural elements of her communicative system than you or I would. When she utters the word 'hat' – or, to be more precise, the phonologically ambigous [hæ?] – she simultaneously produces an iconic gesture for hat. These two signals are mutually reinforcing and facilitate comprehension. A better developed phonological system would make such a gesture unnecessary, and the result of Lucy's adjustment is therefore perceived as atypical.

Pragmatics as choices motivated by interpersonal communication

Pragmatic choices are those which are made by human beings because they wish or need to communicate with each other, and they involve the use of any resources which may help to do the job. To the extent that Lucy's choice to use iconic gestures is made in order to facilitate communication with her interlocutor, it can be described as pragmatic. The communicative significance of Lucy's other use of hand movement – i.e. tapping on the table or some other object (e.g. her head) in time with her speech

– is not at all apparent, and at times may even impede the interlocutor's comprehension because it is distracting. It is possible that its motivation is internal to Lucy's intrapersonal domain and helps to trigger the motor programmes involved in speech production, although this is only conjecture. However, to the extent that her tapping movement is not motivated by the requirements of interpersonal communication, it may be seen as not pragmatic[7]. Another way of putting this is to say that intrapersonal choices are only pragmatic when motivated by interpersonal considerations.

Pragmatic impairment as compensatory adaptation in both intrapersonal and interpersonal domains

Lucy's atypical but communicatively helpful use of iconic gesture is a way of *compensating* for a linguistic deficit – i.e. there are interactions between linguistic and nonverbal sensorimotor elements in the intrapersonal domain. Communication is achieved by redistributing the message load within the overall system. In Lucy's case there is no evidence to suggest that these compensatory adaptations are conscious and deliberate – the system, as it were, appears to have readjusted spontaneously. All communicative impairments have a pragmatic dimension in that they produce an interactional imbalance which results in a redistribution of resources and a concomitant reconfiguration of choices motivated by the need for understanding between interlocutors. Although we are dealing in each case with the cognitive and sensorimotor capacities of an individual, and it makes sense to talk of compensation in the intrapersonal domain, in addition there are compensatory interactions *between* individuals. Impairment in a component of an organism can create a state of disequilibrium both within the organism itself and between the organism and other organisms. The main pressure for reorganization and compensation comes from the need to communicate with others – i.e. it is pragmatically motivated. There is also, therefore, a state of *interpersonal* equilibrium to be maintained during the process of communication. For example, when trying to make sense of what is said by someone with severe linguistic impairment we may draw more extensively than usual on nonlinguistic resources such as inference and visual perception. When faced, on the other hand, with nonlinguistic impairments such as autism or blindness we are more

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[7] If this is so, it would also be inaccurate to describe it as a 'gesture', which also implies communicative intent.

likely to compensate by putting extra effort into making our meaning more linguistically explicit. Although there may be no specific intention to co-opt the communicative resources of an interlocutor, nor indeed any conscious intention on the part of the interlocutor to respond, the pressure for homeostasis through compensation is extremely powerful. The overriding pressure for equilibrium in the interpersonal domain is the key pragmatic driver. It does not matter where the original deficit occurs, or how it is compensated for. The deficit may be linguistic, cognitive, motor or perceptual, and compensation may be attempted by making adjustments to a similar or quite different element, or to a number of such elements simultaneously either serially or in parallel. Because of this, there may be no apparent link between an underlying deficit and a resulting pragmatic impairment. Rather, the latter may be the consequence of one or more compensations. Indeed, compensatory adaptations may give rise to symptoms which may appear to be distinct impairments in their own right but are in fact merely an attempted solution to an underlying problem (see, for example, Perkins, 2001).

The scope of pragmatic impairment

How much should be included in pragmatics? Conventional accounts would say that Lucy's communicative problems are linguistic and that her pragmatic abilities are intact. Certainly, the underlying deficits which give rise to Lucy's atypical communication have little in common with the types of cognitive deficit commonly purported to contribute to a condition such as autism (impaired theory of mind, executive function or central coherence) which is seen as a more prototypical example of pragmatic impairment. And yet, there is also a clear sense in which Lucy's pragmatic behaviour is atypical in that her inadequate linguistic formulations make conversational interaction laboured and problematic. How is it possible to be pragmatically competent and incompetent at the same time? We may begin to resolve this conundrum firstly by identifying and distinguishing between the various cognitive, linguistic and sensorimotor factors which underly communicative performance (McTear & Conti-Ramsden, 1992; Perkins, 2000). In Lucy's case the underlying problem appears to be linguistic, though the consequences are no less pragmatic in terms of restricted communicative choice than would be the case for underlying cognitive and sensorimotor problems. Rather than being similar in kind to language, cognition and sensorimotor processes, pragmatics is instead an inescapable

and inalienable *consequence* of processing in all these areas – i.e. it is emergent. As Schegloff (2003: 26-27) puts it with reference to linguistic communication: "If the pragmatics is separated from 'the rest', can the rest issue in recognizable, coherent, and effective linguistic products? If there are such products, can the pragmatics possibly *be* cut off from the rest of the speech production process?" The apparent contradiction of Lucy being pragmatically competent and incompetent at the same time is simply a problem with more conventional definitions of pragmatics. Lucy's *linguistic* problems place an extra inferential burden on her interlocutor, but her unimpaired cognitive and sensorimotor abilities mean she is able to appreciate her interlocutor's communicative needs and make subtle adjustments to (partially) accommodate them. A similar point has been made by Schegloff (2003) in a case study of a 'split-brain' patient who, despite having been diagnosed as pragmatically impaired according to a range of psychometric tests, was nevertheless able to demonstrate remarkable sensitivity to various interpersonal requirements of the testing situation. Emergentist pragmatics enables us to capture such insights without falling into contradiction. It enables us to take a broad and yet coherent view of pragmatics while at the same time not losing sight of the subtlety and range of its various manifestations.

Conclusion

Pragmatic competence is not a unitary phenomenon. It requires the integration of a range of linguistic, cognitive, sensorimotor and sociocultural elements, and impairment of any of these can result in pragmatic disability. This view of pragmatics is radically different to most other accounts to be found in the language pathology literature where the term 'pragmatic disability' is most commonly restricted to behaviours resulting from the type of socio-cognitive impairment found in autism, right hemisphere brain damage and traumatic brain injury. I have proposed that pragmatic impairment results when there is a restriction on the choices available for encoding or decoding meaning, whatever they might be. These choices are characterised in terms of a range of capacities which underlie communicative behaviour. The emergentist model outlined here accounts for pragmatic disability in terms of an imbalance between interacting linguistic, cognitive and sensorimotor

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systems within and between individuals, and also in terms of attempts to compensate for both linguistic and non-linguistic impairment. Motivation for redressing the balance is interpersonal though it will inevitably have local intrapersonal consequences. Pragmatics is therefore not a discrete and isolable component of our communication – it is all-pervasive.

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