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M. PERKINS, *Pragmatic impairment*. Cambridge: Cambridge University Press, 2007. Pp. 248. ISBN-13: 978-0-52-179070-3.

This is a timely book, from a distinguished UK-based clinical linguist, which tackles the issue of pragmatics, both as a theoretical concept and as an impairment of communication. One of the defining characteristics of this book is its cross-impairment approach; that is, pragmatics is considered across the full range of communication impairments and Perkins brings his substantial experience as a clinical linguist into the discussion of conditions as diverse as autism and traumatic brain injury. Previous books in this field have either tended to list areas of pragmatic functioning and leave the reader to infer the connections amongst them, or concentrated on a much narrower population with developmental language disorders. This book is refreshingly different in that it provides the reader with a comprehensive overview of theoretical approaches in pragmatics, proposes a new model, and then considers the implications of this via the study of communication impairments in the rest of the chapters. The model draws on a comprehensive account which sees pragmatics as an 'emergent product' of cognitive and linguistic processes in interaction. This 'emergent model' is based on the observation that 'there are good grounds for characterizing pragmatics instead as an epiphenomenon or emergent property of interactions' (p. 50) amongst entities such as language, memory, attention, etc. whilst placing an emphasis on context and interactions as determinants of pragmatic impairment. Perkins has put this model forward in previous work (Perkins, 2005), but here it is expanded and further exemplified.

The overall structure of the book therefore is to begin by placing pragmatics within an 'emergentist model' and its sources of influence, which are primarily linguistic and cognitive, but also to introduce less well elucidated influences such as sensorimotor factors. Further objectives are to show how the study of pragmatic impairment can both inform a theory of pragmatics and can help to create an explanatory model for 'normal' pragmatics also. Two other key concepts are central to the book. First, the concept of intrapersonal and interpersonal interactions, in which interactions amongst factors within individuals who have communication impairments and factors which arise from interactions with others, are seen to be central to the model proposed. Second, Perkins proposes that compensatory adaptation is a fundamental constituent of pragmatic disability (and ability) within the dynamic model.

In the second chapter, the author reviews major theoretical explanatory accounts of pragmatics and shows, by means of an excellent summary of the

literature, the advantages and limitations of each. The reader is persuaded that no single account is sufficiently comprehensive to account for the variation and scope of features seen in pragmatic impairment. Therefore, it is argued, there is a requirement for a more cohesive, holistic approach which encompasses theory and gives due consideration to neurological, contextual, cognitive and personal features of the individual which impact on pragmatic functioning.

Chapter 3 turns to a detailed consideration of the cognitive and linguistic factors underlying pragmatics. This begins with a discussion around historical concepts and contemporary criticisms of modularity in cognitive and linguistic systems. In this, Perkins substantially helps the reader by weaving a neat path through the multiplicity of theories and counter-arguments. Again he invokes data from people with diverse pragmatic impairments to 'test' the modularity hypothesis; in this case, agrammatism, specific language impairment in children, and individuals who have Williams Syndrome are the focus of discussion. The study of these groups, he concludes, shows little conclusive evidence for the modularity of language modules; there are, in fact, 'interactions across a range of cognitive processes which are invariably involved in language processing' (p. 41). There are warnings about making assumptions about modularity with respect to communication and pragmatics: 'communicative competence is invariably represented as a subset of various performance features which happen to be easy to measure' (p. 43).

Perkins then turns from modular dissociations to associations, as evidenced in pragmatic impairment. This discussion fits well with the overall conceptualisation of pragmatics as a secondary emergentist phenomena. Here the book is at its zenith, taking on challenging ground, dealing systematically with both experimental evidence and qualitative analyses and interpreting impairment data in novel ways. This discussion draws on contemporary theoretical sources such as the Competition Model (Bates & MacWhinney, 1987) and Karmiloff-Smith's Neuroconstructivism (Karmiloff-Smith, 1998). The latter approach, suggests Perkins, has particular resonance with pragmatics as an emergent phenomenon as it is a developmentally dynamic account which has a common element of compensatory adaptation. One of the conclusions from this review is that our conceptualization of pragmatics must be extended from previous formal linguistic accounts into the INTERACTION amongst language, cognition and the environment. As Perkins states, there are 'limitations of overly language-centred theories of pragmatics for explaining the nature of communication impairments' (p. 49). This chapter is exceptionally well researched and accessible and provides a key contribution in itself.

In Chapter 4, the emergentist model of pragmatics is further described and pragmatic ability and disability are defined. Perkins takes a very broad

view of pragmatic impairment as resulting 'when there is a restriction on the choices available for encoding or decoding meaning' in any individual. His scope is not limited to the typically identified groups who have difficulties with pragmatics, such as people who have autism spectrum conditions. The model of emergent pragmatics is described as having three 'key notions': (1) elements or entities which interact – such as cognitive or sensorimotor systems; (2) interactions - the dynamic relations between entities themselves; and (3) successful equilibrium in intrapersonal and interpersonal domains. The chapter proceeds with definitions of these concepts and their application to datasets from three individuals with impaired communication in which a pragmatic impairment is evident as a result of these elements and their interactions. For example, the chapter shows how a person with an articulation limitation (with intact language capacity) can adapt pragmatics to compensate for unintelligibility, the relative speed with which this is accomplished by the individual and the rapid unconscious adjustment of the interlocutor (in the interpersonal domain) to these adaptations.

In order to constrain the notion of pragmatic impairment, Perkins then revisits the scope of pragmatics. Perspective and component accounts of pragmatics are evaluated briefly and rejected within an emergent account. The definition of pragmatic impairment given earlier is fleshed out by considering pragmatics as a series of choices at various levels: modalities, interpersonal communication and adaptation. That is, the typical speaker can choose a modality, a style of politeness for instance, a specific syntactic frame which support politeness, etc., but that people with pragmatic impairment may have restricted choices because of their impairment.

In the next two chapters, the author considers the role of cognition and language as entities within an emergent model. Again there are excellent summaries of research and this could serve as a valuable short reference to two very complex areas of enquiry. In the chapter on cognition, influences on inferential ability, such as theory of mind and central coherence, are explained and considered in the context of their ability to explain pragmatic impairments such as those seen in autism. A review of the executive function and its links to other areas of cognitive functioning is accomplished via examples of pragmatic impairment arising from traumatic brain injury. Here, one of the other strengths of the book is exemplified; the selective use of narrative and conversational samples alongside insightful analysis of the interactions. There are further sections on memory and emotion and their influence on pragmatics within an emergent model both in ability and disability. Perkins concludes that 'pragmatics is not the produce of any single cognitive process' (p. 106), rather it should be considered as a product of the interactions amongst various cognitive processes, in addition to influences from other domains.

In the following chapter, the consequences of impairments as they affect different parts of language functioning are discussed within the emergent model. The 'co-dependency' of areas of language is stressed and the interactions between each area of language are exemplified both from the literature and via detailed samples. The overall conclusion from these two chapters is that pragmatics cannot be placed exclusively within a single domain of cognition or linguistics but that both these domains play a part in an emergentist model.

The remaining chapters are of necessity shorter, since they draw on far less well elaborated or researched concepts. The author sees sensorimotor systems and capacities as being an important part of an emergentist model, which should and could be researched further. A brief introduction of relevant systems is provided, but it is sometimes difficult to detect a firm direction in the argument here. Chapter 8, on compensatory adaptation, suffers similarly from being under-researched but is more clearly situated within the emergentist model. Perkins reminds us that compensation in terms of recovery has been widely discussed, but compensation in terms of developing conditions has not been, and could be vital to our understanding of the nature of pragmatic impairments. He then offers a short master class on conversation analysis in the interpersonal domain as a means of pinpointing the compensatory attempts of the individual with a communication impairment, whilst simultaneously noting the limitations of this approach. The book concludes with a section on implications for clinical practice.

In my view, this is an important book on both pragmatics and on pragmatic impairment, and will be of use to those interested in broadening their theoretical knowledge as well as providing a sound basis for clinical practitioners. Academics and students with a background in linguistics will find that the chapters on emergent modelling and cognitive influences on pragmatics provide a necessary balance to language-based accounts of pragmatics, and vice versa for cognitive psychologists. Speech and language therapists working with all types of communication impairments will find a useful framework for understanding interpersonal interactions. The notion of compensatory adaptation as outlined here will have special resonance with those working to improve the quality of life for those with communication impairments.

Perkins would probably be the first to say that the emergentist model presented in this book is not completely elaborated or tested, but in this book he has achieved two notable successes First, he attempts to reframe pragmatics from a plethora of isolated theories into a clearly defined and appropriately articulated model of interacting domains and entities. Second, by including analysis of a variety of pragmatic impairments, he carefully exemplifies those aspects of pragmatics which arise from compensatory mechanisms whilst grounding the analysis in the interpersonal, interactive

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domain. This is quite an achievement and it deserves to be read by all interested in pragmatics.

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