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Naturalizing Biblical Hermeneutics

A Case for Grounding Hermeneutical Theory in the Sociocognitive Sciences

Richard Brown

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A Case for Grounding
Hermeneutical Theory
in the Sociocognitive Sciences

A thesis submitted for the degree of Doctor of Philosophy

by

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Abstract

Most theories of biblical hermeneutics were developed within literary and philosophical frameworks that were antipsychologistic. Without a grounding in empirical research, hermeneutical theories have been largely intuitive, with little empirical criteria for substantiating their claims or arbitrating among differing interpretations. The one exception has been those approaches that utilized linguistics and discourse analysis, but even these were conducted in a structuralist framework that was antipsychologistic. In the last fifty years, however, the so-called 'cognitive revolution' has turned this around in most disciplines in a broad movement called cognitive science. Relevant to hermeneutics is the fact that research in various branches of cognitive science has led to a wealth of studies that shed light on the natural cognitive processes involved when people interpret one another and compose written communications.

Since meaning is a cognitive phenomenon and the interpretation of others is a sociocognitive activity, it would seem reasonable to naturalize hermeneutical theory by grounding it in the empirical sociocognitive sciences. My thesis is that doing so leads to insights and concepts that justify this naturalization. To demonstrate this thesis I present results from relevant strands of sociocognitive research, with reflections from philosophical sources, and show the value of applying them to the definition, theory, and practice of biblical hermeneutics. I show that a sociocognitive conceptual framework makes it possible to give empirical support and definition to the concepts of reconstructive hermeneutics, authorial meaning, original context, exegesis, exposition, translation, and reader's significance, and to redefine the roles of exegete, reader, expositor, and translator. I apply sociocognitive conceptual tools rather briefly to a wide range of textual phenomena in the Bible, both to clarify the theoretical concepts involved and to show how they can illuminate potential meanings in new ways. I apply them to biblical terms and concepts to show that they can facilitate a more comprehensive analysis of biblical concepts and theology.

Long Abstract

Most theories of biblical hermeneutics were developed within literary and philosophical frameworks that were antipsychologistic. Without a grounding in empirical research, hermeneutical theories have been largely intuitive, with little empirical criteria for substantiating their claims or arbitrating among differing interpretations. The one exception has been those approaches that utilized linguistics and discourse analysis, but even these were conducted in a structuralist framework that was antipsychologistic. In the last fifty years, however, the so-called 'cognitive revolution' has turned this around in most disciplines in a broad movement called cognitive science. Relevant to hermeneutics is the fact that research in various branches of cognitive science has led to a wealth of studies that shed light on the

natural cognitive processes involved when people interpret one another and compose written communications.

Since meaning is a cognitive phenomenon and the interpretation of others is a sociocognitive activity, it would seem reasonable to naturalize hermeneutical theory by grounding it in the empirical sociocognitive sciences. My thesis, therefore, is that *the goals of reconstructionist biblical hermeneutics, both exegetical and expositional, would be well served by basing hermeneutics on a sociocognitive conceptual framework that is grounded in the empirical sciences*. To demonstrate this thesis I present results from relevant strands of sociocognitive research and philosophical reflection, develop them into aspects of a sociocognitive model of hermeneutics, and show the value of applying them to the definition, theory, and practice of biblical hermeneutics. The definition and value of each aspect of the model is exemplified with brief applications to a wide range of textual phenomena in the Bible, both to clarify the theoretical concepts involved and to show how they can illuminate potential meanings and their likelihood in new ways, even prior to thorough engagement with the biblical studies literature on the passages involved (for which space is lacking in the present work). My argument is that the proposed shift from a philosophical to naturalized paradigm is supported by the hermeneutical value of the benefits that result from doing so.

Since reconstructive hermeneutics is concerned with understanding the knowledge that was conveyed in communicative events, it needs to be based on a reliable theory of human knowledge. In **Chapter 1** I show the value of basing hermeneutics on a naturalistic theory of knowledge, meaning one based on empirical research into the cognitive nature of human knowledge. I draw on various strands of cognitive research to present aspects of such a theory, then show how an interpreter can use them as conceptual tools to illuminate aspects of biblical meaning. Among other things it is claimed that a person's concepts and beliefs (including values) are not atomistic but are part of a complex conceptual system that consists largely of mutually dependent concepts and schemata. The chief features of this system constitute a person's worldview. An individual belief may be viewed as a semantic structure that relates particular concepts together (i.e. a proposition or assumption) and that is qualified by an epistemic attitude that could range from confidence to doubt and denial (i.e. a disbelief). Beliefs are typically altered in the course of a communicative event, with changes either to the addressee's propositional content or her epistemic attitude towards that content or both.[1]

In **Chapter 2** I present a naturalized epistemological basis for evaluating the epistemic status of beliefs and hypotheses, using reliabilist criteria developed by Alvin Plantinga, William Alston, and others. These depend on the proper functioning of one's cognitive faculties in contexts for which they are suited. I argue that this constitutes a cognitively grounded epistemological basis for the hermeneutical task of evaluating candidate interpretations. It also

[1] Speakers/authors will be referred to with masculine gender, addressees and interpreters with feminine.

supports my claim for the hermeneutical value of understanding how cognitive faculties properly function in communicative contexts.

Naturalistic epistemologists see their task as identifying the cognitively optimal processes for forming and evaluating beliefs. It follows from this that the task of naturalistic hermeneutics is to identify the cognitively optimal processes for evaluating interpretations of communicative events, and that a naturalized hermeneutical model is adequate to the extent that it embodies optimal cognitive processes of interpretation. Since our own reasoning processes are never completely objective and require confirmation from others, our hermeneutical methods and criteria should be well enough defined that others can duplicate them to achieve similar results. I argue in what follows that reliable, well-defined conceptual tools can be developed by grounding hermeneutics in the results of empirical science.

In **Chapter 3** I present a cognitive theory of conceptual knowledge. Communications lead to the propagation of conceptual knowledge through a society or community of practice and its transmission to new generations, with the result that knowledge and cognition are social as well as individual, and different societies have different public conceptual systems. Concepts are dynamic, however, and individuals continue to have individual variations; the points of difference in individual concepts and beliefs provide the substance of informative communications. As a consequence, for an interpreter to understand the lexical semantics of a text, she needs to understand the concepts and schemata of the public conceptual system it reflects, and how that system differs from her own. To the extent that she lacks cognizance of that system, she will automatically project her own conceptual system onto it, leading to misconstrual of the lexical semantics of the author's text. On the other hand, when an author was conveying new information to his addressees, he was drawing it from his personal concepts and commending it to his addressees for inclusion in their personal concepts. So the better the interpreter understands the personal conceptual systems of the author and his addressees, the better she can understand what was being communicated between them and not misconstrue the author's informative intentions. Concepts are dynamic, so as a communication progresses, the concepts of the participants can change. Luke, for example, shows Jesus progressively changing and expanding people's concept of the Kingdom of God and their concept of the Messiah. If a modern interpreter assumes a static and uniform concept in all passages, she will misconstrue the communication at some points.

Concepts are often rich in content, with features that represent beliefs about the designata of the concepts. Each belief consists of a proposition consisting of a semantic relation among concepts, resulting in a conceptual network. The meaning of most general concepts is derived in large part from their participation in a schema, which is a tightly related cluster of concepts. Since a single lexeme can signify multiple concepts (polysemy), and since a single concept can be signified by multiple lexemes (conceptual synonymy), any study of lexical meaning should focus on concepts rather than lexemes. To that end it should be recognized that most lexemes

are phrasal and that phrasal lexemes signify a single concept rather than a string of concepts. Thus it would be more valuable if people did conceptual analyses of key biblical concepts rather than word studies of key biblical terms and if dictionaries of biblical theology focused more on concepts rather than lexemes. But since the meaning of concepts is constituted in large part by their connections within schemata, the most appropriate way to study biblical concepts and theology would be to study the schemata presented in the Bible. Customs, rituals, and stories are stored in the mind as schemata as well, ones with a sequential order. So to represent biblical knowledge in a compendium like an encyclopaedia or dictionary, it should ideally be organized and presented according to schemata rather than by individual lexemes or concepts, with alphabetical order restricted to lexemes in the index. More significantly, the entire network of biblical schemata could be developed over the years as an electronic knowledge representation system, as is presently done for medical knowledge and for artificial intelligence. *The development of schematic models of the conceptual systems reflected in the Bible constitutes a new domain for biblical research but has the potential to elucidate biblical concepts and schemata more fully and precisely.*

Concepts are used to make references, but the mechanism by which this occurs has not been satisfactorily explained. I show that a quadrangle model, based on both singular and general concepts, can together with context give an account of reference, and that it can elucidate the difference between a *de dicto* reference like *the Messiah* and a *de re* reference like *Jesus*, as well as the use of both in the same sentence.

I illustrate the hermeneutical value of each aspect of the cognitive theory of concepts, showing that it provides a valuable new tool or parameter for the conceptual analysis of biblical concepts. This the claim that a cognitive-based theory of human knowledge is relevant for biblical hermeneutics. It also shows that a text-based or reader-based approach to interpretation has little hope of comprehending the public and private concepts of an author and his audience in an historically distant culture. The reader will merely project her own concepts onto the text and see a partial reflection of her own conceptual system.

Communication is a social activity, governed by social conventions and dependent on the intersubjectivity of social cognition. In **Chapter 4** I present a sociopragmatic model of communicative events, particularly their participant structure, then use this to develop a natural model of the interpreter's role in exegesis and exposition. I note that in a sociopragmatic account of interpretation, verbal and textual utterances are instruments of intentional communicative acts, and that hearers and readers routinely seek to comprehend both the informative and illocutionary intentions of the speaker or author. This contrasts with antipsychologistic approaches that dismiss authors and intentions. I note that devotional readers of the Bible look for a secondary speech act as well, that of God speaking to them by alerting them to significant implications of the author's meaning for their own beliefs, values, practices, and relationships, including their relationship with God himself.

Of special significance for hermeneutics is the role of indirect participants in the participant structure of communicative events and the use by all participants of models of one another's cognitive states (contexts). From these considerations I derive a naturalistic, sociopragmatic model of the task of exegesis and the role of the exegete. I argue from this that the interpreter of ancient and other cross-cultural texts is not a direct addressee of the authors, as assumed in dyadic models of communication and hermeneutics, and cannot 'join the authorial audience', as assumed in modern theories of literature, but must be an indirect participant, notably a cross-cultural observer of the communicative acts that produced those texts. *Thus the exegetical task of the biblical interpreter is to be an astute observer of a textual communication that took place on the other side of a cultural, temporal, situational, and linguistic divide, astute enough to reconstruct the context of the authorial audience and the probable cognitive effects of that communication in that context.* This includes both the explicit and implicit information that the author communicated. Thus a sociocognitive approach justifies the seeking of authorial intent and provides a framework for understanding the role of readers, exegetes, and expositors. The chapter concludes by briefly noting similarities and differences with other hermeneutical models.

In **Chapter 5** I describe the intersubjective and inferential nature of communication and show that it depends on participants constructing contextual models of each other's state of knowledge, inferring the informative intentions of the speaker/author, and anticipating the cognitive response of addressees, mostly in their unconscious mind. I argue that these inferences are based on the principle of optimal relevance and depend crucially on the context used by the reader to interpret the author's intentions. I argue from the linguistic phenomenon of information structure that almost every sentence in a text reflects both the author's contextual model of his envisaged audience and the explicit aspects of the meaning he wished to convey to them. In further support of this claim I note that people with an inability to infer contextual models of others, as with autism, find it difficult to communicate. I argue from these that a sociocognitive framework for hermeneutics provides justification for recognizing the presence of the authorial meaning and authorial context and for seeking to reconstruct both the author's contextual model for his authorial audience and his meaning for that audience, based on his anticipation of how they would infer his intentions. This contrasts with antipsychologistic theories of interpretation, which are unable to account for inference, intentionality, and contextual models of each other's mental states, and it contrasts with theories that treat texts as independent of their authors and their intentions, as if the texts no longer reflect the original contexts and informative intentions of those authors. This sociocognitive hermeneutic also contrasts with traditional historicist theories that located context in a shared cognitive environment or in the actual context and response of original readers, rather than in the author's own mental model of the context of his envisaged audience.

I show that the role of relevance in communication sheds light on context, intertextuality, implicature, and metaphor, and I illustrate these with application to biblical passages. I use several biblical examples to show how authors use implicit contextual premises and implications to communicate more than what the text actually says, such that Paul's text can be but 'the tip of the iceberg of Paul's discourse meaning'.[2]

I argue that the principle of optimal relevance reveals a crucial distinction between implications based on the authorial context, which are implicatures and hence part of the authorial meaning, and other implications based on the reader's context, which might be relevant and rewarding but are not part of the author's meaning. In this way it both justifies and defines Hirsch's distinction between meaning and significance.

I argue that this framework sheds light on both successful and unsuccessful cross-cultural communication and shows both the need and the possibility of exegetes reconstructing reliable contextual models for authors whose audiences had a culture and worldview quite different from those today. I conclude that a sociocognitive framework provides grounds to justify and define a number of disputed hermeneutical concepts and thereby justifies the naturalization of biblical hermeneutics.

It has been established that natural communication is inferential in nature and dependent on context, and that it has the aim of signalling one's informative and illocutionary intentions and interpreting those of others. In **Chapter 6** I present in more detail a model of how these cognitive processes use accessibility and relevance to infer both context and meaning. I then outline a procedure which interpreters can use to consciously reconstruct these inferential processes. This is the nuts and bolts of a sociocognitive hermeneutic. It introduces a whole new set of conceptual tools for the exegesis and elucidation of the Bible, and these are illustrated by application to several biblical texts. This chapter shows that a naturalized hermeneutic, based on what is known of the natural cognitive processes of interpretation, can provide a powerful conceptual framework for reconstructive exegesis and can provide grounds for arbitrating among polysemous readings.

In **Chapter 7** I take up the third task of hermeneutics, that of elucidating the biblical message by enabling contemporary audiences to understand what transpired in the original communicative events and to recognize its significance for their own context. Given the earlier conclusions that readers are observers rather than addressees, the goal of elucidation is to provide readers with the information they need to become more astute observers of the communication represented by a particular passage so they themselves can reconstruct the knowledge that was transferred through it. In other words, the task of reconstructive elucidation is to help contemporary readers to exegete the meaning themselves through assisted

[2] Noted in Turner, 'Historical Criticism and Theological Hermeneutics of the New Testament', in Joel B. Green and Max Turner (eds.), *Between Two Horizons: Spanning New Testament Studies and Systematic Theology* (Grand Rapids; Cambridge: Eerdmans, 2000), 44–70, 49.

reconstruction of the author's intended context and message. This view of the task differs from text-based and reader-based approaches, but it also differs from author-oriented approaches that treat the reader as an addressee of the author and from ones that tell the reader what the author meant rather than assisting the reader to discover that herself.

I show that a sociocognitive framework not only justifies this approach, it also sheds light on the distinct kinds of information that scholars need to provide readers to help them reconstruct authorial meaning and its significance for them. I show that a sociocognitive hermeneutic provides new criteria for distinguishing, classifying and explaining different kinds of Bible translation and the purposes for which they are most appropriate. I argue that an unannotated translation of the Bible can never enable biblical illiterates to reconstruct authorial meaning and that it needs to include a paratext providing seven distinct kinds of essential background information. A corollary is that Bible translators need to develop and test the translated text and paratext together to ensure their joint communicativeness. The same applies to commentaries for general use: if they are to succeed in making the author's meaning comprehensible and relevant, then they need to include essential information of these seven distinct kinds.

Chapter 8 summarizes the value of naturalizing biblical hermeneutics and cites implications for biblical scholarship.

Acknowledgements

The knowledge we learn and pass on in seminaries and formal research and analysis must have an impact on those with whom we interact or it is useless. — Shaw and van Engen[3]

With grateful acknowledgement to David Hilborn,
truly a scholar worth emulating.

[3] Shaw and Van Engen, *Communicating God's Word in a Complex World: God's Truth or Hocus Pocus?* (Lanham, MD, and Oxford: Rowman & Littlefield, 2003), 210.

Abbreviations of Bible Texts and Versions

ASV	*The Holy Bible, American Standard Version 1901*
BHS	*Biblia Hebraica Stuttgartensia*
CJB	*The Complete Jewish Bible*
CSB	*Holman Christian Standard Bible*
DSG	Birch et al., *The Discipleship Study Bible: New Revised Standard Version*.
ESV	*The ESV Study Bible*. All English Scripture quotations are from this version unless otherwise indicated.
GNT	*The Greek New Testament*.
HG	United Bible Societies, *The Holy Gospel*.
HSB	Lindsell and Verbrugge, *NRSV Harper Study Bible*.
ISB	Hahn and Mitch, *The Ignatius Catholic Study Bible: The Gospel of Mark*.
LB	American Bible Society, *The Learning Bible*.
LXX	Rahlfs, *Septuaginta*.
NASB	*The New American Standard Bible*.
NET	*The NET Bible*.
NIV	K. Barker et al., *The NIV Study Bible*.
NJB	*The New Jerusalem Bible*.
NLT	*NLT Study Bible (New Living Translation)*.
NRSV	*New Revised Standard Version Bible*.
REB	*Revised English Bible*.
RSV	*Revised Standard Version of the Bible*.
OSB	Suggs et al., *The Oxford Study Bible*.

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Typographical conventions

With regard to notation, italics are used for emphasis, for highlighting important points, and for mentioning word-forms. Non-English words in Roman script are italicized in Gentium font. Foreign words in non-Roman scripts are not italicized. Quotations of the Hebrew Bible are from the BHS text and are usually cited with the Tiberian vowelling but without the Tiberian accents. Quotations of the Greek New Testament are from the UBS 4th edition and are fully polytonic. Unless otherwise indicated, all Scripture quotations in English from the Holy Bible, English Standard Version® (ESV®), copyright © 2001 by Crossway Bibles, a publishing ministry of Good News Publishers; used by permission; all rights reserved. The ESV does not use italics, so if part of a quotation from it is italicized, the italics have been added here for emphasis, and similarly for the New Living Translation (NLT).

Since this work is dealing with issues of language and meaning, it is necessary to distinguish between the mention of words as forms and use of words for their meanings but with attention to their forms. Italics have been used for mentions to mark a string of characters or words where there is no simultaneous use of the meaning of the word or phrase, and single quotation marks enclose words where the meaning is evoked as well. One test for this usage in English is whether one could insert a classifier such as *the word*, *the title*, or *the phrase* in front of the term. For example, one could say his baby likes the sound of (the word) *splash*. This is different from saying his baby likes the sound of (what we call) ‘splashing’. Another test is whether the cited term must vary morphologically to maintain grammatical agreement with the rest of the sentence, such has having a plural form or past-tense marker; if so, then the meaning is being used and the words are enclosed with quotation marks.

Thus single quotation marks are used here (1) to draw attention to the form of an expression while still evoking its meaning, as in scare quotes, indicating that the expression is one used by others, (2) to indicate the gloss or lexical meaning of a word or phrase, (3) to enclose a hypothetical sentence where the focus is on the meaning rather than the words used, and (4) to enclose text cited from other sources, where its meaning is in focus as well as its form. Some examples:

1. He said my ‘hubris’ was unbearable. (His spelling of *hubris* is wrong.)
   She called me a ‘skunk’. (But: She called me by the name *skunk*.)
   He referred to them as ‘engineers’. (But: He conferred on them the title *engineer*.)
2. Unlike Aramaic, the word בַּר occurs rarely in Biblical Hebrew with the meaning ‘son’. More often it occurs with the meaning ‘grain’ or ‘open country’.
   The divine cognomen שַׁדַּי ‘Almighty’ occurs 48 times in the Masoretic text.
3. Regarding any event, one can ask ‘When did it happen?’ and ‘Where?’

4. Moses said, ‘Let my people go.’ (But: The word *go* was spelled *goe* in the 1611 printing of the Authorized Version.)

In summary, words are left unmarked when used with their meaning alone, but with single quotation marks where there is attention to their form as well, and in italics where only the form is being mentioned.

The conventions of ‘logical quotation’ have been used for final punctuation in expressions before closing quotation marks, as opposed to ‘typesetting quotation’ conventions. The logical conventions are normal in Britain and are common in scientific writings in North America. So punctuation is included within the marks if it is part of the expression being quoted or mentioned, as in (4) above, but otherwise placed outside, as in (1) and (2) above. If the top-level sentence ends with embedded quoted material that includes final punctuation, then the final punctuation of the matrix sentence is omitted, as in (3) above.

If the complements of verbs of speaking like *ask* and *say* are quotations of reported sentences, then a comma is placed after the verbs, as in 4 above. If their complements are hypothetical sentences, then a comma is not needed, as in 3 above.

When technical terms are first used in a way that clarifies their intended meaning, they are presented in **boldface** to alert the reader that they are being introduced with a defined meaning. In such cases italics or inverted commas are not simultaneously used, even if they would have been appropriate otherwise. When mention is made of technical terms used in other works but not in this one, they are presented in regular typeface with quotation marks or italics.

The terms *Messiah* and *Kingdom of God* have been spelled with initial capitals. Word-initial capitals are also used to identify English words used as labels for distinct participant roles in semantic frames, such as ‘Agent’. Small capitals are used to identify words used as labels for mental concepts, such as DOG. Small capitals are also used, in accord with convention, for the transliterations of the Hebrew divine name YHWH (from Hebrew יהוה) and for its euphemistic translation LORD.

Introduction

> What critic does not in his moments dream of a
> scientifically rigorous way of characterizing the meaning of a text,
> of demonstrating with tools of proven appropriateness
> that certain meanings are possible and others impossible.
> — Jonathan Culler[1]

> The nature of human understanding,
> the way that we gain and organize knowledge,
> the role played by language and memory in these considerations,
> the relations between conscious and unconscious knowledge,
> and how we understand other persons, are all good examples of issues that
> form the intersection of hermeneutics and the cognitive sciences.
> — Shaun Gallagher[2]

The term *hermeneutics* has been applied to theories of interpreting texts, theories of interpreting art, theories of interpreting experience, and theories of interpreting human existence, but the domain of this inquiry is hermeneutics as a theory of interpreting communicative events. Within that domain, the focus of reconstructionist hermeneutics is on understanding communicative events that took place in the historical past, at a cultural and conceptual distance from the interpreter. The goal is to reconstruct, from the evidence available, the exchange of information that is most plausible to have occurred among the participants in a communicative event. In other words, what would they have learned from it about one another's viewpoints, and how might it have affected their own concepts and beliefs? More particularly, from what is known of the original context from historical research and from the clues in the text, what effect could the author have expected his text to have on his envisaged audience? What would it have meant to them? Such questions are of interest to those who seek to understand God through study of the textual communications of the biblical corpus and the oral communications that are reported in that corpus. They are also of interest to many historians and literary scholars.[3] Since these are historical questions, answering them requires

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[1] Culler, *Structuralist Poetics: Structuralism, Linguistics and the Study of Literature* (London: Routledge and Kegan Paul, 1975), 15. Culler was expressing disappointment in the inadequacy of formal semantics as a tool for discovering the meaning of a text.

[2] Gallagher, 'Hermeneutics and the Cognitive Sciences', *Journal of Consciousness Studies*, 11/10-11 (2004), 162–174, 162.

[3] Claude Panaccio, for example, notes in Panaccio, *Ockham on Concepts* (Aldershot: Ashgate, 2004), 2. that historical monographs in philosophy aim to understand and reconstruct a person's philosophy from the corpus of texts available. The same approach can be taken with the Pauline corpus. In literature, Robert Hume has argued in Hume, *Reconstructing Contexts: The Aims and Principles of Archaeo-*

an historicist, reconstructionist hermeneutic, one that takes full account of the cognitive environments of the author and his audience.[4] Once we have answered these questions to a satisfactory degree, we can ask what significance the answers have for topics of interest to us today. The question is whether it is possible to reconstruct a communicative event of the past and the cognitive effects it was evidently intended to have on its audience, and if so, then how.

With the rise of positivism and antipsychologism in the 19th century it became fashionable to deny the possibility of investigating cognitive entities of any sort, whether concepts, beliefs, intentions, or effects, and historical reconstructions were deemed to be outside the realm of science, so the goal of a reconstructionist hermeneutic was largely rejected. Post-structuralists took this rejection a step further by claiming there is no historical truth to investigate. As for interpreters who maintained an historicist approach, the principal methods available to them have been linguistic analysis, historical research, and intuition. The problem is that interpreters differ widely in their intuitions, and appeals to intuition are not compelling. As a result, biblical exegetes with the best intuitions can nevertheless find that their arguments fall flat for lack of appeal to the cognitive principles that could support those intuitions.

The cognitive revolution has dispelled this antipsychologism from most human sciences and has afforded them new insights and conceptual tools, yet the field of hermeneutics has remained outside the scope of this paradigm shift. This is somewhat paradoxical, because hermeneutics is concerned primarily with cognitive phenomena: the constituents of meaning are concepts and beliefs, and the interpretation of speakers is a sociocognitive activity. It stands to reason that theories about such matters should be grounded in the sociocognitive sciences and not left to diverse philosophical speculations. As Craig Bartholomew has noted, ‘Modern biblical interpretation is shaped in a thousand ways by philosophy’, and ‘The impact of modern philosophy on biblical interpretation has often been negative’.[5]

My thesis, therefore, is that *the goals of reconstructionist biblical hermeneutics, both exegetical and expositional, would be well served by basing hermeneutics on a sociocognitive conceptual framework that is grounded in the empirical sciences*. To demonstrate this thesis I present results from relevant strands of sociocognitive research and philosophical reflection,

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Historicism (Oxford and New York: Oxford University Press, 1999). that one cannot appreciate literature without being able to see it from the perspective of its intended audience and their context. Hume describes the reconstruction of contexts as ‘archaeo-historicism’.

[4] Thiselton places ‘reconstructionist’ models of interpretation at the opposite end of the scale from ‘reader-response’ models. See Thiselton, ‘A Retrospective Reappraisal: Reader-response Hermeneutics and Parable Worlds’, *Thiselton on Hermeneutics: The Collected Works and New Essays of Anthony Thiselton* (Aldershot: Ashgate, 2006), 515–521, 520. On the other hand, he is probably referring to Eric Hirsch’s perspective, which focuses on the author to the neglect of the authorial audience.

[5] Bartholomew, ‘Uncharted Waters: Philosophy, Theology and the Crisis in Biblical Interpetation’, in Craig Bartholomew et al. (eds.), *Renewing Biblical Interpretation* (Scripture and Hermeneutics; Milton Keynes: Paternoster, 2000), 1–39, 35.

develop them into aspects of a sociocognitive model of hermeneutics, and show the value of applying them to the definition, theory, and practice of biblical hermeneutics. The definition and value of each aspect of the model is exemplified with brief applications to a wide range of textual phenomena in the Bible, both to clarify the theoretical concepts involved and to show how they can illuminate potential meanings and their likelihood in new ways, even prior to thorough engagement with the biblical studies literature on the passages involved (which is outside the scope of the present work). My argument is that the proposed shift from a philosophical to naturalized paradigm is supported by the value of the benefits that result.

1. Hermeneutics and the Nature of Human Knowledge

> It is impossible to do genuine scientific biblical study today without raising questions of hermeneutics—the science of interpretation—and we cannot raise the question of interpretation without raising questions about the nature of knowledge, the use of language, and the scientific and ontological presuppositions operative in the mind of the exegete.
> — James B. Torrance, 1980 [1]

> Epistemology that is blind to how minds actually work is misleading and pointless. — Paul Thagard, 2007 [2]

1.1. Hermeneutics as applied epistemology

Reconstructive hermeneutics is concerned with understanding the exchange of human knowledge that occurred in communicative events. It must begin, therefore, with a theory of human knowledge and human knowing, which are topics of epistemology. William Alston defines epistemology rather broadly as 'philosophical reflection on the cognitive aspect of human life'.[3] Hermeneutics could be viewed as epistemology applied to communicated knowledge. This can be seen rather clearly in the parallels below between the concerns of epistemology and hermeneutics:

Epistemology: *What is the nature of concepts, and how can we know their content?*

Hermeneutics: What concepts did the author evoke with his text, and what were their content?

Epistemology: *What is the nature of beliefs?*

Hermeneutics: What beliefs (explicit and implicit) did the text evoke in the readers?

Epistemology: *How can we evaluate the epistemic status of conflicting beliefs or hypotheses?*

Hermeneutics: How can we evaluate the epistemic status of conflicting beliefs or hypotheses regarding an author's informative intent?

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[1] J. B. Torrance, 'Forward', in Thiselton , *The Two Horizons* (1980) xi.

[2] Thagard, 'Introduction to the Philosophy of Psychology And Cognitive Science', in Paul Thagard (ed.), *Philosophy of Psychology And Cognitive Science* (Amsterdam and Oxford: North Holland, 2007), ix–xvii, x–xi.

[3] Alston, *Beyond "Justification": Dimensions Of Epistemic Evaluation* (Ithaca: Cornell University Press, 2005), 5.

Thus the question of how we can know the meaning of a statement is dependent in part on the question of how we can know anything at all. But the relationship can also be viewed as interdependent, because a belief about anything requires (1) a neural representation of that knowledge in memory, (2) a statement that expresses that knowledge, and (3) an interpretative strategy to link the representation with the statement. Not surprisingly, it has been claimed that all theories of epistemology are based on a philosophy of language, or as Michael Dummet puts it, that they are based on some theory of semantics.[4] My more modest claim, however, is that a coherent theory of hermeneutics cannot exist apart from a theory of epistemology with which it coheres, and that both should be coherent with the empirical results of cognitive science.

There have been competing theories of epistemology since ancient times, when Aristotle took issue with Plato on the subject, and each theory has provided a different paradigm for hermeneutical theory. Few, however, were adequate for the task, because they were based on intuition and speculation rather than empirical science. For example, even with increasing awareness of the diversity of viewpoints, cultures, worldviews, and languages in the world, philosophers held that human concepts are isomorphic with external entities and hence transculturally universal.[5] Even Kant, who argued that concepts are not isomorphic with reality but rather are shaped by the nature of our human cognitive faculties,[6] still assumed they were transculturally uniform. It was not until the twentieth century that Wilhelm Dilthey and William James noted the epistemological significance of the fact that different cultures have different concepts and worldviews,[7] and even then few philosophers accepted their view. On the other hand, from Aristotle until the rise of positivism in the 19th century, most philosophers did recognize that concepts and beliefs are mental entities, but by the late 19th century Dilthey and James were among the few who still propounded this.

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[4] See, for example, Dummett, *The Logical Basis of Metaphysics* (London: Duckworth, 1991).

[5] The three main theories of concepts—abstract entities (Plato and Augustine), essences (Aristotle), and mental abstractions (Ockham) claimed that general concepts were universal and transcultural. Rationalists, empiricists, and positivists took the same view. Kant and most idealists denied the isomorphism of concepts but retained the transcultural universality. Schleiermacher, for example, attributed conceptual differences to defects of perception and intellectual function in other races rather than accept the fact that concepts are socially and culturally conditioned. See Schleiermacher, *Schleiermacher: Hermeneutics and Criticism: And Other Writings*, ed. Andrew Bowie (Cambridge Texts in the History of Philosophy; Cambridge: Cambridge University Press, 1998), 271.

[6] Kant, *Lectures on Logic*, trans. J. Michael Young (Oxford and New York: Oxford University Press, 2004 [1800]), 589–591, I, §§1–4; Kant, *Critique of Pure Reason*, trans. Werner S. Pluhar (Indianapolis: Hackett, 1996), 366–367, B377 A320.

[7] See the last page (§§5–6) in Dilthey, *The Formation of the Historical World in the Human Sciences*, eds Rudolf A. Makkreel and Frithjof Rodi (Wilhelm Dilthey: Selected Works; Princeton: Princeton University Press, 2002 [1910]). See James, *A Pluralistic Universe* (Gutenberg, 2004 [1909]) <http://www.gutenberg.org/etext/11984>.

Positivists reacted against the conceptualism of Kant and the idealists by claiming that perceptions mirror reality and provide the only means for an **epistemic evaluation** of truth claims.[8] They held that observations were objective and free of personal and social conditioning. More importantly for hermeneutics, they dismissed cognitive phenomena as unobservable and hence outside the scope of inquiry, leading to a widespread acceptance of antipsychologism in both the natural and human sciences. This led to behaviourism in psychology, to structuralism in linguistics, to conceptual realism (Platonism) in Anglo-American analytic philosophy, and to subjectivism in the phenomenology of Continental philosophy.[9]

In biblical hermeneutics this antipsychologism led to a widespread dismissal of *mens auctoris* 'authorial intent', since it was psychological and unverifiable by direct observation. Beyond that, each of these antipsychologistic epistemologies fostered a different set of hermeneutical theories. Positivists fostered the historical-critical method of biblical scholarship, which focused on evaluating the historicity of texts with naturalistic criteria and reconstructing a plausible history of their background and development.[10] Although avoiding metaphysics, they reified concepts to a transcendental 'third' realm. Phenomenologists focused on the reader's experience of the text in heightened aesthetic response, broadened horizons, and expanded self-understanding.[11] Concepts were regarded as transcendental rather than mental. As for meaning, this was constructed by the reader under the influence of experience, tradition, and interpretive community. Structuralists focused on the text itself, which they largely divorced from author and context. They located meaning in the interrelationships of structural elements of the language and text and not in mental concepts. These existed as a semiotic system that was tacitly reified to a transcendental realm.[12] This objectivist approach turned out to be subjective in practice, leading some practitioners to adopt post-structuralist and

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[8] See Ayer, 'Introduction', in A. J. Ayer (ed.), *Logical Positivism* (New York: Free Press, 1959), 3–30.

[9] Husserl founded Phenomenology with his work Husserl, *Logical Investigations*, trans. J. N. Findlay (New York: Humanity Books, 2000 [1900]). He describes this book as a 'polemic on psychologism' (p. 6; Vol. I, Forward to 2nd ed.). He was converted to antipsychologism by Gottlob Frege, who became the inspiration for antipsychologism in Analytic Philosophy. Husserl thus broke from the psychologistic tradition of Dilthey, who described exegesis as understanding aspects of an author's mental life insofar as they are objectified in the text; see Dilthey, 'The Rise of Hermeneutics (1900)', in Rudolf A. Makkreel and Frithjof Rodi (eds.), *Hermeneutics and the Study of History* (Princeton: Princeton University Press, 1996), 235–258, 250–251.

[10] See for example Troeltsch, 'Historical and Dogmatic Method in Theology', in Gregory W. Dawes (ed.), *The Historical Jesus Quest: Landmarks in the Search for the Jesus of History* (Louisville: Westminster John Knox, 2000 [1898]), 29–53.

[11] See especially Gadamer, *Truth and Method*, trans. Garrett Barden and John Cumming (New York: Seabury, 1975).

[12] See for example Lyons, *Semantics* (1; Cambridge: Cambridge University Press, 1977), 112–113.

postmodern positions that located meaning in the construal of readers and their communities. In other words, meaning was not communicated by the author or encoded in his text but was constructed by the reader.[13]

Post-positivists like Wittgenstein, Quine, Popper, Kuhn, and Putnam discredited the objectivism, reductionism, and verificationism of positivism, as well as the atomism and subjectivism of phenomenology. As for the historical-critical method, even its advocates were dismayed at the multiplicity of conflicting historical reconstructions it engendered.[14] Although many post-positivists assumed a coherentist view of epistemic evaluation, the critical realists among them affirmed the possibility of discovering reality while nevertheless acknowledging the fallibilism of human knowledge. Their claim is that scholarly, scientific methods can provide grounds to arbitrate among competing claims by showing that some have higher degrees of verisimilitude than others. Ben Meyer and N. T. Wright applied critical realism to biblical hermeneutics in support of the claim that some interpretations can be evaluated more positively than others.[15] Critical realism, however, provides few epistemic criteria for evaluating alternative hypotheses about an author's informative intentions; it lacks a theory of conceptual knowledge with which to frame such hypotheses, and has not utilized the results of the sociocognitive sciences to develop such theories and criteria.[16] These various epistemological developments have left hermeneutics in what Don Carson calls a 'hermeneutical morass'[17] and which Craig Bartholomew calls a 'crisis in biblical interpretation'.[18]

On the positive side, the nature and formation of human knowledge is a thriving subject of research in the cognitive sciences, while communication is a subject of research in the social sciences; research in cognitive linguistics touches both fields. So an alternative is to approach epistemology and hermeneutics on the basis of the empirical sociocognitive sciences rather than relying on philosophy alone. The sociocognitive sciences have made remarkable progress in understanding the nature and mechanisms of human knowledge as well as the way that

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[13] See for example Fish, *Is There a Text in this Class? The Authority of Interpretive Communities* (Cambridge: Harvard University Press, 1982); Ricoeur, *From Text to Action*, trans. Kathleen Blamey and John B. Thompson (II; Evanston: Northwestern University Press, 1991), 83.

[14] See Krentz, *The Historical-Critical Method* (Philadelphia: Fortress, 1975), 85.

[15] Wright, *The New Testament and the People of God* (Minneapolis: Fortress, 1992); Meyer, *Critical Realism and the New Testament* (Princeton Theological Monograph Series, 17; Pittsburgh: Pickwick, 1989).

[16] For advocacy to ground critical realism in cognitive science, see Nellhaus, 'From Embodiment to Agency: Cognitive Science, Critical Realism, and Communication Frameworks ', *Journal of Critical Realism*, 3/1 (2004), 103–132.

[17] See Carson, *The Gagging of God: Christianity Confronts Pluralism* (Grand Rapids: Zondervan, 1996), chaps. 1–2.

[18] Bartholomew, 'Uncharted Waters'.

knowledge is transmitted to others in communicative acts. These developments have had such far-reaching implications for the human sciences that they are frequently described as 'cognitive revolutions'. The first cognitive revolution began in the 1950s with the separate initiatives of Noam Chomsky and George Miller, who challenged the reigning positivist orthodoxy of antipsychologism and founded the movement called cognitive science.[19] Much of this, however, was based on the rationalist assumptions of 'cognitivism' that (1) the mind operates linearly like a computer language by manipulating symbols and logical formulas, (2) the mind localizes groups of operations in isolated modules, as in many computer programs, and (3) lexical meaning is isolated in the mind from encyclopaedic meaning. In the 1990s these assumptions were challenged and largely overturned in a 'second cognitive revolution' in which advances in neuroscience and cognitive psychology revealed a very different account of how the brain actually works to produce the system of cognitive functions we call our **mind**. It identified cognitive functions with neural networks that operate through parallel distributed processing and which are heavily interconnected across the brain. There is localization of functions and data types but with no modularity as such and with no amodal symbol systems. It was discovered that the mind is not like a symbolic computer program running on the hardware of the brain but is more like the computational instructions embedded in the hardware itself. This new understanding gave rise to the commonly cited explanation of the brain-mind relationship, that 'mind is what the brain does'. It was further recognized that lexemes evoke concepts as their meaning, and that concepts encode their meanings in their neural connections with other concepts. Research in these areas led to significant advances in understanding of the human cognitive system, knowledge, and communication and thereby illuminated cognitive processes relevant to a variety of disciplines.[20] Among the processes relevant for hermeneutics are those involved when people communicate and interpret one another. There is no need to speculate about the nature of interpretation when one can base theory on empirical science. It is reasonable therefore to claim that hermeneutical theory can be significantly enhanced by grounding it in the results of the sociocognitive sciences; my argument in support of this claim is to demonstrate the value of doing so.

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[19] See Miller, 'The Cognitive Revolution: A Historical Perspective', *TRENDS in Cognitive Sciences,* 7/3 (2003), 141–144. Miller dates the birth of cognitive science to 11 September 1956. He is well-known for his early advocacy of cognitive psychology and for his development of the online WordNet semantic dictionary at Princeton University.

[20] Among the disciplines that were developed or transformed in the two cognitive revolutions are cognitive psychology, social psychology, developmental psychology, cognitive anthropology, cognitive semantics, cognitive linguistics, psycholinguistics, sociopragmatics, discourse analysis, communication theory, speech therapy, schema theory, artificial intelligence, knowledge representation (in computer science), biology, philosophy of mind, philosophy of science, and naturalized epistemology. Research in neuroscience and experimental psychology has provided much of the empirical evidence for this.

There have been steps in this direction in epistemology. In 1969, Willard Quine advocated the development of a 'naturalized epistemology' that was based on the natural sciences:

> Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. … But a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make free use of empirical psychology.[21]

By the end of the nineties, several philosophers had recognized this need to understand cognitive processes:

> In what appears to be a revolt against armchair epistemology, in recent years many epistemologists have claimed that results in psychology concerning human cognition and reasoning are in some way essential to or useful for progress in epistemology.[22]

These philosophers have rejected the reliance on intuitions that has characterized Anglo-American epistemology.[23] As Kornblith describes this development, philosophers had previously concerned themselves with how a person ought to arrive at beliefs, while ignoring work by cognitive scientists on how people actually form their beliefs, i.e. their actual doxastic practices. Thagard offers the following rationale for naturalized epistemology:

> [Epistemology] has often been pursued in an a priori fashion, independent of any ordinary or scientific experience, but no one has ever established any a priori truths. A more naturalistic approach to epistemology investigates the structure and growth of human knowledge by locating it in human minds and societies that can in part be investigated by the empirical methods of psychology and the other cognitive sciences. ... Epistemology that is blind to how minds actually work is misleading and pointless.[24]

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[21] Quine, 'Epistemology Naturalized', *Ontological Relativity and Other Essays* (New York and London: Columbia University Press, 1969), 69–90, 82. Quine's psychologistic leanings appear in *Two Dogmas* and in Quine, *Word and Object* (Cambridge, MA: MIT Press, 1960), 17. He does not provide an argument until Quine, 'Epistemology Naturalized'. See also Sellars, 'Philosophy And The Scientific Image Of Man', in Robert Colodny (ed.), *Frontiers of Science and Philosophy* (Pittsburgh: University of Pittsburgh Press, 1962), 35–78, 77. He makes a step in this direction as follows:

> A person can almost be defined as a being that has intentions. Thus the conceptual framework of persons is not something that needs to be reconciled with the scientific image, but rather something to be joined to it … with the language of community and individual intentions, so that … we directly relate the world as conceived by scientific theory to our purposes.

[22] Feldman, 'Methodological Naturalism in Epistemology', in John Greco and Ernest Sosa (eds.), *The Blackwell Guide to Epistemology* (Oxford: Blackwell, 1999), 170–186, 170.

[23] For arguments against reliance on intuitions, see Kornblith, *Knowledge and Its Place in Nature* (Oxford: Clarendon Press, 2002), chap. 2. and Nichols et al., 'Meta-Skepticism: Meditations on Ethno-Epistemology', in Steven Luper (ed.), *The Skeptics* (Aldershot: Ashgate, 2003), 227–248. Nichols et al show that the use of intuitions in Anglo-American philosophy is a kind of 'ethno-epistemology' because it merely documents the assumptions of their own culture and subculture.

[24] Thagard, 'Introduction', x–xi. This is probably an overstatement.

In practice the focus has been primarily on naturalizing epistemic evaluation, rather than on naturalizing the theory of knowledge in general or concepts in particular. By this account, as Plantinga puts it, 'a belief has warrant for a person *S* only if that belief is produced in *S* by cognitive faculties functioning properly (subject to no dysfunction) in a cognitive environment that is appropriate for *S*'s kind of cognitive faculties, according to a design plan that is successfully aimed at truth'.[25] This provided a **reliabilist** definition of epistemic evaluation. Like other naturalistic epistemologists, Kornblith claims that 'a reliabilist conception of knowledge gives us the only viable account of what knowledge is'.[26] This leads Kitcher to propose the following tenet for a naturalized epistemology:

(1) The central epistemological project is to be carried out by describing processes that are reliable, in the sense that they would have a high frequency of generating epistemically virtuous states in human beings in our world.[27]

This tenet leads to a principal goal of reliabilist epistemological research:

(2) The ultimate goal of (traditional naturalistic) epistemology is to present a compendium of cognitively optimal processes for all those contexts in which human subjects find themselves.[28]

A process is **cognitively optimal**, according to Kitcher, if it has a 'high frequency of generating epistemically virtuous states in human beings in our world', as described in (1) above. In other words, if a system of cognitive processes has a track record of producing a high ratio of epistemically reliable judgements, then it is cognitively optimal.

Parallel to this, certain epistemologists began to consider more seriously the development of a naturalized epistemology,[29] including the reliabilism advocated by Christian philosophers

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[25] Plantinga, *Warranted Christian Belief* (Oxford and New York: Oxford University Press, 2000), 156. See also Kornblith, 'What is Naturalistic Epistemology?', in Hilary Kornblith (ed.), *Naturalizing Epistemology* (Cambridge, MA: MIT Press, 1994), 1–14.

[26] Kornblith, *Knowledge*, 135. Kornblith's volume is largely dedicated to demonstrating the thesis of reliabilism, as is Alston's volume, Alston, *Beyond Justification*. and Goldman's classic: Goldman, *Epistemology and Cognition* (Cambridge, MA, and London: Harvard University Press, 1986). In this view, a belief is justified if it was formed in a reliable process. They take as evidence the evolutionary success of humans, which indicates an ability to form reliable concepts and beliefs. Descartes had a similar idea, but based on creation: 'as God is no deceiver, the faculty of knowledge which he has given us cannot be fallacious', Descartes, *Selections From The Principles Of Philosophy of Rene Descartes*, trans. John Veitch (Edinburgh: Blackwood, 1901), §XLIII <http://www.gutenberg.org/etext/4391>.

[27] Kitcher, 'The Naturalists Return', *The Philosophical Review*, 101/1 (1992), 53-114, 74–76.

[28] Kitcher, 'The Naturalists Return', 76.

[29] See for example Goldman, *Epistemology and Cognition*; Goldman, *Liaisons: Philosophy Meets the Cognitive and Social Sciences* (Cambridge, MA: MIT Press, 1992); Goldman, *Pathways to Knowledge: Private and Public* (Oxford and New York: Oxford University Press, 2002); Kitcher, 'The Naturalists Return'; Stich, 'Naturalizing Epistemology: Quine, Simon and the Prospects for Pragmatism', in

Alston and Plantinga.[30] Alston has identified fifteen 'epistemic desiderata' that are significant in various degrees for making epistemic judgements, and these will be discussed in §2.5.[31]

Hermeneutical implications

Herbert Simon advocated the naturalization of hermeneutics as well:

> Cognitive science has reached a point in understanding human thinking where it can say a great deal about literary criticism; in particular, that it can cast some light on the theoretical foundations of criticism and even generate useful advice for its practice.[32]

Raymond Gibbs came to a similar conclusion, saying, 'Literary scholars … should be aware of the empirical work in cognitive science relevant to their own interests in reading and interpretation.'[33] One of the empirical conclusions that he cites, which Sellars emphasized as well, is that 'the disposition to seek human intentionality is consistently strong across individuals, cultures, and artefacts'.[34] This contrasted with the positivistic position that Wimsatt had popularized among literary critics in 1954 that it is a fallacy to seek an author's intentions.[35] Although Herbert Simon believed a new school of literary criticism was needed, one based on cognitive principles, he did not go on to develop a naturalized hermeneutic, and neither did the literary critics.

As for biblical hermeneutics, it has hardly been touched by either of the cognitive revolutions. Perhaps this stems from Gadamer's deprecation of method, science, and objectivity

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Christopher Hookway and Donald Peterson (eds.), *Philosophy and Cognitive Science* (Royal Institute of Philosophy, Supplement no. 34; Cambridge: Cambridge University Press, 1993), 1–17; Kornblith (ed.), *Naturalizing Epistemology* (Cambridge, MA: MIT Press, 1994); Kornblith, *Knowledge*; Feldman, 'Methodological Naturalism in Epistemology'; Papineau, 'The Evolution of Knowledge', in Peter Carruthers (ed.), *Evolution and the Human Mind: Modularity, Language and Meta-Cognition* (Cambridge and New York: Cambridge University Press, 2000), 170–206; Prinz, *Furnishing the Mind: Concepts and their Perceptual Basis* (Cambridge, MA: MIT Press, 2002). There are differences in focus and approach among these authors.

[30] See Plantinga, *Warrant and Proper Function* (Oxford: Oxford University Press, 1993); Alston, 'Epistemic Desiderata', *Philosophy and Phenomenological Research*, 53/3 (1993), 528–550. Alston describes his perspective on epistemology as 'naturalized', but not 'the extreme version' of Quine, in Alston, *Beyond Justification*, 8.

[31] Alston, *Beyond Justification*, 39–45.

[32] Simon, 'Literary Criticism: A Cognitive Approach', *Stanford Humanities Review*, 4/1 (1994), 1–26, 1. Simon concluded his article by proposing a new school of criticism, based on cognitive science.

[33] Gibbs, *Intentions in the Experience of Meaning* (Cambridge and New York: Cambridge University Press, 1999), 335.

[34] Gibbs, *Intentions*, 334.

[35] Wimsatt and Beardsley, 'The Intentional Fallacy', in William Kurtz Wimsatt and Monroe C. Beardsley (eds.), *The Verbal Icon: Studies in the Meaning of Poetry* (Lexington, KY: University Press of Kentucky, 1954), 3–18.

in favour of experience, tradition, and subjectivity. My thesis, however, is that the goal of an historicist, reconstructive biblical hermeneutic can be advanced by developing it within a sociocognitive conceptual framework that provides objective, scientific criteria for reconstructing communicative events and their meaning. To demonstrate the value of doing so I will develop several aspects of a sociocognitive hermeneutic and show that it justifies the concept of authorial meaning, provides models for reconstructing it, and provides additional criteria for adjudicating among competing interpretations. I will show that it provides a conceptual framework that sheds new light on the nature of meaning and on the tasks of exegesis, translation, and exposition.

Some steps have already been taken in this direction by utilizing concepts and methods from linguistics and the philosophy of language. Cotterell and Turner, for example, demonstrated the hermeneutical value of lexical semantics, discourse structure, pragmatics, conversational interaction, and the theory of metaphor.[36] Thiselton, Vanhoozer, and others incorporated the speech act theory of Austin and Searle.[37] Thiselton added Wittgenstein's theory of language games.[38] Poythress utilized Thomas Kuhn's approach to scientific inquiry,[39] while others applied modern linguistics to the analysis of biblical languages[40] and biblical

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[36] See Cotterell and Turner, *Linguistics and Biblical Interpretation* (London: SPCK, 1989); Turner, 'Modern Linguistics and the New Testament', in Joel B. Green (ed.), *Hearing the New Testament: Strategies for Interpretation* (Grand Rapids: Eerdmans, 1995), 146–174.

[37] See Thiselton, *New Horizons in Hermeneutics: The Theory and Practice of Transforming Biblical Reading* (Grand Rapids: Zondervan, 1992); Vanhoozer, *Is There a Meaning in this Text? The Bible, the Reader and the Morality of Literary Knowledge* (Leicester: Apollos, 1998); Vanhoozer, 'From Speech Acts to Scripture Acts', in Craig Bartholomew et al. (eds.), *After Pentecost: Language and Biblical Interpretation* (Milton Keynes: Paternoster, 2001), 1–49. Also see Hilborn, 'Glossolalia as Communication: A Linguistic-Pragmatic Perspective', in Mark Cartledge (ed.), *Speaking in Tongues: Multi-Disciplinary Perspectives* (Studies in Pentecostal and Charismatic Issues; Milton Keynes: Paternoster Press, 2006), 110–146; Thiselton, 'Communicative Action and Promise in Interdisciplinary, Biblical, and Theological Hermeneutics', in Roger Lundin et al. (eds.), *The Promise of Hermeneutics* (Grand Rapids: Eerdmans, 1999), 133–239. Thiselton shows how the notion of a promissory speech act can be a hermeneutical key for interpreting many Biblical discourses.

[38] See Thiselton, *The Two Horizons: New Testament Hermeneutics and Philosophical Description with Special Reference to Heidegger, Bultmann, Gadamer & Wittgenstein* (Carlisle: Paternoster, 1980), 357–438; Wittgenstein, *Philosophical Investigations: The German Text, with a Revised English Translation*, trans. G. E. M. Anscombe (Oxford: Blackwell, 2003 [1953]).

[39] Poythress, *Science and Hermeneutics* (Grand Rapids: Zondervan, 1988).

[40] See Bergen, *Biblical Hebrew and Discourse Linguistics* (Dallas: SIL International, 1994); Heimerdinger, *Topic, Focus and Foreground in Ancient Hebrew Narratives* (Sheffield: Sheffield Academic Press, 1999); Levinsohn, *Discourse Features of New Testament Greek: A Coursebook on the Information Structure of New Testament Greek* (2nd edn.; Dallas: SIL International, 2000).

texts.[41] These are useful tools, but taken alone they constitute neither an epistemology nor a sociocognitive hermeneutic. Linguistic tools are most helpful, I submit, when they are part of a hermeneutic that is itself grounded in the sociocognitive sciences, because the interpretation of literary texts is itself a cognitive process.

As will be seen in Chapter 5, the principal cognitive goal of recipients of informative communications is to recover the communicator's informative intentions, whether the medium is spoken or written. This translates into reconstructionist hermeneutics as the recovery of **authorial intent**, which Bock and Fanning define as 'what the author who produced the text sought to communicate through it'.[42] Even in expressive genres like psalms of praise, where the aesthetic and affective meanings are prominent, their effects are still dependent on the reader recovering the author's informative intent. Consider, for example, the emotive affect on the reader of Psalm 47:2 in the Authorized Version: 'For the Lord most high is terrible; he is a great King over all the earth.' If the reader does not understand what the author meant here by *terrible* (נוֹרָא), then the emotive effect will be skewed. There are, of course, different English translations of this verse, using words like *awesome* and *awe-inspiring*, but which one is mostly likely true of the author's informative intent? That judgement requires epistemic evaluation, and this is an epistemological issue. So reconstructive hermeneutics has this epistemological dimension. This leads me to suggest the following hermeneutical counterpart to the epistemological goal presented in (2) above:

(3) One of the goals of naturalized hermeneutics is to present a compendium of cognitively optimal processes for interpreting texts.

Indeed, the bulk of this work is devoted to compiling such a compendium and to demonstrating its usefulness, in support of the main thesis.

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[41] Levinsohn, 'A Discourse Study of Constituent Order and the Article in Philippians', in Stanley E. Porter and Donald A. Carson (eds.), *Discourse analysis and other topics in Biblical Greek* (Journal for the Study of the New Testament Supplement Series, 113; Sheffield: Academic Press, 1995), 60–74; Porter and Carson (eds.), *Discourse Analysis and Other Topics in Biblical Greek* (Sheffield: Sheffield Academic Press, 1995); Hoyle, 'Scenarios, Discourse and Translation', dissertation (University of Surrey, 2001); Longacre, *Joseph: A Story of Divine Providence: A Text Theoretical and Textlinguistic Analysis of Genesis 37 and 39-48* (Winona Lake, Indiana: Eisenbrauns, 2003); Longacre, 'Discourse Structure, Verb Forms, and Archaism in Psalm 18', *Journal of Translation*, 2/1 (2006), 17–30, <http://www.sil.org/siljot/2006/1/48001/siljot2006-1-02.pdf>; Pattemore, *The People of God in the Apocalypse: Discourse, Structure and Exegesis* (Society for New Testament Studies Monograph Series, 128; Cambridge: Cambridge University Press, 2004); Lunn, *Word-order Variation in Biblical Hebrew Poetry: Differentiating Pragmatics and Poetics* (Milton Keynes: Paternoster, 2006); Hwang and Longacre (eds.), *Holistic Discourse Analysis* (forth).

[42] Bock and Fanning, *Interpreting the New Testament Text: Introduction to the Art and Science of Exegesis* (Wheaton: Crossway Books, 2006), 24.

1.2. The nature and content of beliefs

In ordinary usage, the word *belief* means a proposition towards which one has a positive epistemic attitude, and the word *knowledge* means the same, but with a more positive attitude. In the technical usage that follows, however, the term *belief* designates a unit of knowledge in human memory that includes both propositional content and the person's epistemic attitude towards that content, including ones of doubt and disbelief. In their development of Relevance Theory, Dan Sperber and Deirdre Wilson used the term **assumption** more broadly to include both beliefs in one's long-term memory and new information that has not yet been stored in memory, such as perceptions, incoming communications, and immediate inferences.[43]

1.2.1. Personal beliefs (assumptions)

Propositions

In linguistic analysis, a **proposition** is the meaning of a sentence uttered in context, including its referential and implicit content. It is invariant under paraphrases of the utterance itself, as in the following two translations of Acts 4:33a:

(4) GNT: καὶ δυνάμει μεγάλῃ ἀπεδίδουν τὸ μαρτύριον οἱ ἀπόστολοι ...
ESV: And with great power the apostles were giving their testimony to the resurrection of the Lord Jesus …
CEV: In a powerful way the apostles told everyone that the Lord Jesus was now alive.

Although the ESV and CEV use a different language from the GNT and differ between themselves in the English wording, they attempt to convey the same proposition.

The implicit information in an underlying proposition can include default semantic arguments, analytic inferences from the concepts used, and synthetic inferences derived from interaction with the context. In (4) above, for example, the term *resurrection* links to a concept of a person becoming alive after having been dead. The CEV says 'is now alive', where *is now* means the same as *has become alive*, implying Jesus was previously not alive. The context provides the implicit information that Jesus had been dead, thereby yielding the same information as *resurrect*. The referential information includes the referent of the proper name *Jesus* and the referent set of the descriptive phrase *the apostles*.

There is no evidence that propositions exist as abstract entities in a realm of their own, which humans can somehow access with their minds. As Searle notes, 'The brain is all we have for the purpose of representing the world to ourselves and everything we can use must be inside

[43] See Sperber and Wilson, *Relevance: Communication & Cognition* (2nd edn.; Oxford: Blackwell, 1995), 181 and passim. They posit a mental 'assumption schema' in which there are places for a proposition and one's attitude towards it.

the brain.'[44] So we can say that propositions exist socially and individually in the minds of people, who entertain them as mental representations encoded in the brain as neural configurations. These configurations have recurring structures that can be conveniently categorized as semantic frames, semantic representations, concepts, and schemata, as discussed in Chapter 3.

Propositional attitudes

People have **propositional attitudes** towards propositions, and these attitudes may be considered part of the representations encoded neurally in their brains. It is common to divide these propositional attitudes into two classes: **epistemic** attitudes and various **deontic** attitudes.[45]

An epistemic attitude represents a person's degree of confidence that a proposition accurately describes a state of affairs in a focus situation in some referential world, whether real, fictional, or hypothetical. In other words, it represents one's epistemic evaluation of that proposition with regard to that world. Sperber and Wilson describe the degree of epistemic confidence as the **strength** of the attitude.[46] Alston talks of a range of a proposition's **epistemic status** from **negative** to **positive**. This translates into probabilistic terms as a range from zero to one. The epistemic attitude is usually left unexpressed in a sentence if the proposition is assumed without emphasis to be true.

A deontic attitude represents a person's degree of appreciation (or depreciation) for a state of affairs in some world; in other words, it represents a deontic evaluation, not of the proposition, but of its designated state of affairs. Whereas the epistemic attitude reflects degrees of belief, the deontic reflects degrees of value.

Languages typically provide lexical and grammatical means of expressing different degrees of epistemic attitude, as in (5) and (6) below:

(5) John certainly / probably / possibly / probably didn't / certainly didn't come here this morning.

(6) John did / might have / didn't come here this morning.

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[44] Searle, *Intentionality: An Essay in the Philosophy of Mind* (Cambridge: Cambridge University Press, 1983), 229. This does not exclude the logocentric view that true propositions exist in the Logos, or the mind of God, as divine thoughts. See Plantinga, 'Why Propositions Cannot Be Concrete', *Essays in the Metaphysics of Modality* (Oxford and New York: Oxford University Press, 2003), 229–233.

[45] An alternative for *deontic* is *volitional*. In place of *epistemic* and *deontic*, Dietmar Zaefferer uses the terms *representative* and *presentative*, reserving the other terms for modal operators (Zaefferer, 'The Place of Linguistic Concepts within a General Ontology of Everyday Life', *Linguistic Ontologies and Data Categories for Language Resources* (Harvard University, 2005), 8, 11.). Zaefferer subcategorizes presentative attitudes into three subtypes, depending on the feasibility of the desired outcome: intention (feasible by person), volition (feasible in general), wish (feasibility irrelevant).

[46] See Sperber and Wilson, *Relevance*, 108–109.

One can also frame the propositional statement as the complement of an explicit epistemic statement using a cognitive verb like *know*:

(7) I know / believe / think / suspect / doubt / disbelieve that John came here this morning.

A biblical example may be cited from John 11:27, where Martha of Bethany says to Jesus:

> ἐγὼ πεπίστευκα ὅτι σὺ εἶ ὁ χριστὸς ὁ υἱὸς τοῦ θεοῦ ὁ εἰς τὸν κόσμον ἐρχόμενος.
> I believe that you are the Christ, the Son of God, who is coming into the world.

Zero marking of epistemic attitude generally expresses an attitude that the proposition is reliable or has the same epistemic status as the discourse unit in which it occurs:

> Now the birth of Jesus Christ took place in this way... (Mat 1:18)

Hermeneutical implications

Since knowledge typically consists of propositions qualified by propositional attitudes, held with varying degrees of epistemic confidence and deontic evaluation, the interpretation of communicated knowledge requires identification of both the propositions and the speaker's attitudes towards them. In John 4:29, for example, the author reports a Samaritan woman in Sychar telling her fellow villagers to 'Come, see a man who told me everything I ever did. Could this be the Christ?' (μήτι οὗτός ἐστιν ὁ χριστός;) The woman has inferred that it is possible that Jesus is the awaited Messiah, and her remark evinces both an epistemic attitude of possibility and a deontic attitude of positive hope. Her request to the Samaritan townspeople calls for them to investigate and either confirm or refute this proposition. After meeting Jesus (and examining the evidence, so to speak), the Samaritans evaluate the proposition to be true, namely that he is the Christ (v. 39).

In the second chapter of Acts, Peter cites evidence for the proposition that Jesus is the Messiah, appealing to the evidence of his followers miraculously praising God in other languages and of prophecies regarding the messianic age being fulfilled. On that basis he seeks to assure his audience of the truth of his own belief:

(8) Let all the house of Israel therefore know for certain that God has made him both Lord and Christ, this Jesus whom you crucified. (Acts 2:36)

Here the term ἀσφαλῶς 'certainly' certain signifies the highest possible epistemic attitude.

1.2.2. Episodic knowledge

Cognitive psychologists distinguish different kinds of knowledge, which are stored in different kinds of long-term memory, with each memory system being dependent on a different part of the brain. Wagner presents the following as a standardly accepted division of memory functions in long-term memory:[47]

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[47] Wagner, 'Encoding and Retrieval from Long-Term Memory', in E. E. Smith and Stephen M. Kosslyn (eds.), *Cognitive Psychology: Mind and Brain* (Upper Saddle River, NJ: Prentice-Hall, 2006), 192–238,

Declarative (explicit) memory	Semantic memory (facts)	Medial temporal lobe
	Episodic memory (events)	Medial temporal lobe
Nondeclarative (implicit) memory	Procedural memory	Striatum
	Priming	Cortex
	Emotional conditioning	Amygdala
	Muscular conditioning	Cerebellum
	Nonassociative learning	Reflex pathways

Table 1-A Kinds of knowledge and memory

Nondeclarative knowledge is entirely unconscious and hence beyond the scope of epistemology and hermeneutics. As for declarative knowledge, Wagner characterizes the difference between episodic knowledge and semantic knowledge as one of 'context': episodic knowledge includes spatio-temporal features relating to the context in which an experience occurred, while semantic knowledge is free of spatio-temporal features.[48] A more characteristic distinction is that episodic memory consists of historical knowledge about events that are recollected, whereas semantic memory stores conceptual knowledge that is used in recognition and inferencing. Barsalou and others have preferred the term **conceptual memory** rather than *semantic memory*, since conceptual knowledge constitutes the contents of this memory.[49] More recently, however, Barsalou and others have argued that conceptual and episodic knowledge are just convenient categories that actually share the same memory system in an interdependent way.[50]

Episodic memory stores memories of events. It is thought that conceptual knowledge is abstracted in part from episodic memories.[51] In other words, the cognitive system induces abstract propositions from multiple episodic experiences and adds them to concepts. For example, distinctive features of one's singular FIDO concept will be formed in large part from one's experiences of the pet Fido. Some of these experiences will be stored in episodic memory and continue to shape and maintain one's FIDO concept. Memories of experiences with Fido and other dogs will then contribute inductively to one's generic DOG concept. When a person sees a dog or hears the word *dog*, her DOG concept is evoked, causing relevant features of that

194. Wagner notes (p. 212) that episodic memories can be verbal or nonverbal, and these depend on the left and right hemispheric portions of the medial temporal lobe, respectively.

[48] See Wagner, 'Cognitive Psychology', 195.

[49] See Barsalou, *Cognitive Psychology: An Overview for Cognitive Scientists* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1992), 128.

[50] See Barsalou, 'Situating Concepts', in P. Robbins and M. Aydede (eds.), *Cambridge Handbook of Situated Cognition* (Cambridge and New York: Cambridge University Press, 2008), 236–263.

[51] See Conway, 'Exploring Episodic Memory', in Ekrem Dere et al. (eds.), *Handbook of Episodic Memory* (Amsterdam and Oxford: Elsevier, 2008), 19–30.

concept to come to mind, along with memories of relevant experiences and stories that exemplify those features. So one's concepts are formed in part from experiences, and they continue to be associated with some of those episodic memories. Thus experiences, both one's own and those of others told as stories, provide the perceptual material and evidential foundations on which the conceptual system is built, and with it one's worldview.

We can define a person's **worldview** as consisting of his most fundamental values, beliefs, concepts, and schemata (including episodic schemata).[52] It is the foundation that structures the rest of his conceptual system by maintaining its coherence with the fundamentals. This coherence is embodied in the structure of the neural network itself, which connects everything together and ultimately connects to the fundamentals. The coherence is maintained by interpreting incoming information in accord with the conceptual system, thereby filtering it, as people say, through the grid of their worldview.

In traditional societies, the worldview of children is formed by the way experiences and events are interpreted to them by their families, both their own experiences and the experiences of others, which were told to them as stories. Most notable in this regard are the culture's traditional stories, the 'stories that people live by' in that society, whether prose, poetry, or song. Stored as schemata in episodic memory, these stories provided the compelling evidence for the development of beliefs and concepts in conceptual memory, thereby forming the foundations of its structure. Although we can think of the worldview as embodied in conceptual knowledge, it is transmitted through episodic knowledge, which is more declarative (and compelling) than conceptual knowledge and hence more effective for transmitting concepts. So by transmitting these stories to the next generation, families and communities shape the basic values and beliefs of their children and thereby transmit their worldview to them.[53] In modern, cosmopolitan societies there are diverse worldviews, and they are promulgated through the media and through educational institutions more than by family. Nevertheless, the media still use narrative genres to promote their worldviews, using news stories, television dramas, movies, and popular reading.

It is not yet clear to cognitive researchers whether episodic memory and conceptual memory are distinct memory systems or just two kinds of knowledge. Most researchers recognize that both are involved to varying degrees in the recognition of entities. According to these dual-process models, a person might use conceptual information to categorize an entity according to its perceived properties but might also recollect experiences of that entity, a distinction discussed as 'knowing' versus 'remembering'.[54] In many cases, of course, the

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[52] Schema theory is discussed in §3.5.

[53] For discussion of the 'epidemiological' transmission of stories, concepts and culture, see Sperber, *Explaining Culture: A Naturalistic Approach* (Oxford: Blackwell, 1996).

[54] For a review of research on dual-process models, see Diana et al., 'Models of Recognition: A Review of Arguments in Favor of a Dual-Process Account', *Psychonomic Bulletin & Review,* 13/1 (2006), 1–21.

cognizer has conceptual knowledge alone and no recollection of the previous experiences from which that knowledge was gained. In yet other cases, the cognitive system has episodic information but treats it as irrelevant for general purposes and hence not worth the effort of reconstructing it. For example, a person might recognize a person in the distance as an acquaintance without previous experiences of that person coming to mind. But in cases where it is relevant for the cognizer to have full information about an object, such as making a judgement regarding it or helping others to develop their concept of it, then the cognizer's system might retrieve relevant episodic information about that object.

This selective use of data is part of a more general practice of limiting cognitive processing to what is deemed relevant and efficient,[55] and it affects conceptual knowledge as well. Moskowitz cites studies which show there is a trade-off between efficiency and accuracy in cognition, between classifying something as typical of a category and individuating its unique features.[56] He cites research showing that when the cognitive system is under load, it relies heavily on existing schemata to interpret and store information and tends to ignore inconsistencies, but when it is not under load it attends to the details, stores them, and retrieves them. This shows that the system does seek accuracy, but only when relevant, and only when the cognitive resources are available to process the extra information. Even then it stops processing when it reaches a sufficiency threshold. Moskowitz describes it as follows:

> The sufficiency principle asserts that for whatever task people are confronted with—whether it be forming an impression of someone, planning how to act toward someone, forming an attitude, making a decision, or simply comprehending some information—there is a point at which they feel that their task is completed and they can move on to the next task at hand.[57]

This principle applies at the unconscious level of automatic processing, but experiences shows that it also characterizes the conscious level of controlled processing. If people set their sufficiency threshold too low for controlled cognitive processing, it will make the process easier, but the results will be less accurate.

Hermeneutical implications

N. T. Wright has discussed at length the value of biblical narrative for modifying worldview.[58] Given the role of episodic knowledge in the formation and modification of conceptual knowledge, it should be evident that narrative and expressive genres of the Bible, such as stories, parables, and psalms, can be more effective rhetorically than abstract generalizations.

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[55] Sperber and Wilson describe the general principles in Sperber and Wilson, *Relevance*, 49, 260:
Human cognition tends to be geared to the maximisation of relevance.
Every act of ostensive communication communicates a presumption of its own optimal relevance.

[56] See Moskowitz, *Social Cognition: Understanding Self and Others* (New York and London: Guilford Press, 2004), 189–192.

[57] Moskowitz, *Social Cognition*, 204.

[58] Wright, *The New Testament and the People of God*, 31–80.

The Bible consists in large part of narratives whose significance is interpreted to the readers, whether implicitly or explicitly, and this is one of the ways in which worldviews are formed and modified. Parables may be seen as brief, high-impact versions of this. For the receptive reader, these biblical stories provide the episodic evidence that can bring aspects of her worldview into greater alignment with the worldview being communicated in the Bible. The expressive genres do the same thing. Psalms, for example, let the reader experience the thoughts and feelings of a person in dialogue with God. One could even say that a major goal of the biblical authors is to modify worldviews so they align more closely with what God has shown them, and that they accomplish this primarily through stories and poetry. Missionaries and Sunday school teachers have been using Bible stories and personal testimonies quite effectively to convey a Christian worldview, and Western youth leaders are now using this approach as well.[59]

Abstract propositions are in conceptual memory and are usually the result of an inductive process that generalizes over many episodic experiences, including stories. Yet it is common practice in the West to try to instil abstract beliefs instantaneously by teaching 'propositional' knowledge, meaning abstract generalizations. Preachers do this when they rely on proof-texting and abstract statements while ignoring the other literary genres, which constitute over 90% of the Bible. Yet experts in homiletics have shown the rhetorical value of all of the biblical genres, especially when each is used in accord with the nature of its genre.[60]

So we should recognize the pedagogical importance of using episodic experiences and narrative texts to form and modify concepts and eventually the worldview that shapes the whole conceptual system. The biblical texts themselves consist largely of narrative and aesthetic genres that are effective for realigning the worldview of readers. Nevertheless, we should not confuse episodic knowledge with worldview, which is the backbone of the conceptual system. It seems to me that N. T. Wright has done this by overlooking the role of the conceptual system in knowledge and epistemology. Thus he identifies stories, not as an instrument of worldview formation, but as 'one of the key features of all worldviews', saying that 'all worldviews contain an irreducible narrative element', which becomes 'the larger framework of the story or worldview which forms the basis of the observer's way of being in relation to the world'.[61] One interprets the world, however, on the basis of one's conceptual system, which is built up from stories and experiences, so Wright seems to be substituting the

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[59] See Willis and Evans, *Making Disciples of Oral Learners* (International Orality Network, 2005); Novelli, *Shaped by the Story: Helping Students Encounter God in a New Way* (Grand Rapids: Zondervan, 2008).

[60] See Lovejoy, 'Shaping Sermons by the Literary Form of the Text', in Bruce Corley et al. (eds.), *Biblical Hermeneutics: A Comprehensive Introduction To Interpreting Scripture* (2nd edn.; Nashville: Broadman, 2002), 398–418.

[61] Wright, *The New Testament and the People of God*, 32, 38, 37.

narrative means for the conceptual result. David Naugle views worldview as transmitted in 'a semiotic system of world-interpreting stories' which then 'provides a foundation or governing platform upon or by which people think, interpret and know'.[62] It is this conceptual 'foundation' in semantic memory that should be identified with the worldview itself rather than the world-interpreting stories in episodic memory on which it is based.

It was noted that people use a 'dual process' for interpreting cognitive input, namely recognition according to their concepts and remembrance of relevant episodes. When interpreting the Bible, readers use both conceptual knowledge about the topics and people in the text and the remembrance of previous stories about those people and of previous teaching about the text. Often, however, they forget the experiences in which they learned the information that formed their concepts and do not know to what extent their concepts of biblical topics, events, and people are based on biblical exegesis or on extraneous sources. The reader, for example, might approach the text with a certain conception of Paul or of Jesus without remembering how that conception was formed or whether it was based on biblical passages or on extra-biblical input, such as hearing sermons and reading commentaries. The reader might also approach a familiar text with a preconception of what it means based on traditions in her interpretive community or on annotations in her Bible. She might read John 3:16, for example, as if it talked about a suffering God who 'gave up' his son to death, when in fact the verse says nothing about death, suffering, or sacrificial giving, although the previous passage alludes to it. On the contrary, the word used is δίδωμι, which means 'to give freely' as a gift.

> For God so loved the world, that he gave his only Son, that whoever believes in him should not perish but have eternal life. (John 3:16 ESV)

So the verse talks about the loving Father's gift to the world of his unique Son so that people might enjoy eternal life with him through personal faith in him. The gift is Jesus himself and all that he is and does! This subjective 'preunderstanding' has been emphasized in the phenomenological tradition of hermeneutics, which has tended, however, to embrace the reader's automatic response rather than encouraging critical self-awareness and controlled interpretation. Reconstructive hermeneutics requires full and accurate self-awareness as well as interpretive processes that are controlled rather than automatic.

1.2.3. Metarepresentations and public knowledge

One can have beliefs about the beliefs of other people. Such a belief is called a **metarepresentation**, because it is a representation of someone else's mental representation.[63]

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[62] Naugle, *Worldview: The History of a Concept* (Grand Rapids: Eerdmans, 2002), 291.

[63] See Wilson, 'Metarepresentation in Linguistic Communication', in Dan Sperber (ed.), *Metarepresentations: A Multidisciplinary Perspective* (Oxford: Oxford University Press, 2000), 411–

Suppose, for example, that Mary has a metarepresentation of a belief held by Jane (whether accurate or not) to the effect that Jane regards herself as clever. Mary might express this as 'Jane thinks she's clever'. In this case Mary is expressing her belief about a belief of Jane's. When the biblical authors report the thoughts and statements of other people or discuss their beliefs, they are dealing with metarepresentations. An example is when an OT prophet criticizes people's belief that idols are gods by saying the belief is false and harmful. He is conveying epistemic and deontic evaluations of a metarepresentation of their belief.

When people conduct informative communication, such as dialogue, they are sharing information between their belief systems. To do that, they construct a **contextual model** of the other person's cognitive state, meaning the relevant beliefs available to that person at the current moment in the dialogue.[64] These models, also called 'theories of mind' and 'contextual models', are dynamic and constantly updated as the dialogue progresses, based on what has been communicated and the feedback received. According to Tomasello, there could be no intersubjectivity, no social cognition, no culture, and no civilization if people lacked this ability to 'imagine themselves in the mental shoes of some other person, so that they can learn not just *from* the other person but *through* the other'.[65] It seems that mirror neurons in various parts of the brain are responsible for this ability to construct metarepresentations of other people's thoughts and actions.[66] In other words, the brain has a mirror neuron system that is used in part for metarepresentation. The relational and communicative disorder known as autism is thought to result from dysfunction in the mirror neuron system, leaving subjects unable to construct adequate models of other people's cognitive states.[67] So the ability to make metarepresentations of the beliefs of other people is critical to communication, and hence it is critical to composition and interpretation.

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448. See the discussion of multiple levels of metarepresentation in Sperber, 'Understanding Verbal Understanding'.

[64] See Van Dijk, 'Cognitive Context Models and Discourse', in Maxim I. Stamenov (ed.), *Language Structure, Discourse and the Access to Consciousness* (Amsterdam and Philadelphia: John Benjamins, 1997), 189–226; Givón, *Context as Other Minds: The Pragmatics of Sociality, Cognition and Communication* (Amsterdam/Philadelphia: John Benjamins, 2005).

[65] Tomasello, *The Cultural Origins of Human Cognition* (Cambridge, MA: Harvard University Press, 1999), 5–6.

[66] See Barsalou, 'Grounded Cognition', *Annual Review of Psychology,* 59 (2008), 617–645; Rizzolatti et al., 'Mirrors in the Mind', *Scientific American,* 295/5 (2006), 54–61; Kilner et al., 'Evidence of Mirror Neurons in Human Inferior Frontal Gyrus', *Journal of Neuroscience,* 29 (2009), 10153–10159.

[67] See Baron-Cohen, 'The Empathizing System: a Revision of the 1994 Model of the Mindreading System', in Bruce J. Ellis and David F. Bjorklund (eds.), *Origins of the Social Mind* (London: Guilford Press, 2005), 468–492; Ramachandran and Oberman, 'Broken Mirrors: a Theory of Autism', *Scientific American,* 295/5 (2006), 62–69; Rizzolatti et al., 'Mirror Neurons and their Clinical Relevance', *Nature Clinical Practice Neurology,* 5 (2009), 24–34.

A fascinating feature of human language and communication is the ability to express simultaneously both one's own belief and one's metarepresentation of someone else's alternative version of that belief. In English, for example, if David says to Mary, 'It was Jane who broke the cup', then he expresses two (or more) beliefs: (1) David believes that Jane broke the cup, and (2) David believes that Mary believes that someone broke the cup, but does not know who it was. The first belief is David's opinion of some state of affairs, while the second belief is David's metarepresentation of Mary's opinion about it. In the theory of information structure, the metarepresentation in belief (2) is called a **pragmatic presupposition**, and the information he adds to it ('Jane') is called the **focus**.[68] This example illustrates the **additive function** of communication, in which Mary has a belief that *someone* broke the cup, and David commends to her addition of the information that it was *Jane* who broke the cup, resulting, he hopes, in Mary believing that *Jane* broke the cup. Thus communication itself is based on the speaker's metarepresentational model of the addressee's beliefs, and his utterances reflect both his own implied beliefs and his metarepresentations of her beliefs.

When communication includes a high percentage of new information, the pragmatic presuppositions may consist only of the concepts used to refer to known entities. When the author of Genesis 1 writes that God created the sea creatures and the birds, then he created the animals, and then he created humankind in his own likeness, the presupposition consists of the concept of God as creator as well as concepts of various phyla, while the assertion specifies their historical and agentive relationship.

A speaker can also express both his own epistemic attitude towards a proposition and his metarepresentation of his addressee's attitude towards the same proposition. When David says 'Jane imagines that she's clever', David is simultaneously expressing two beliefs: (1) David believes that Jane believes that Jane is clever, and (2) David himself believes that Jane is not clever. If David says 'Jane claims she's clever', then he is still expressing two beliefs, but the second one has a more uncertain epistemic attitude, namely that (2) David believes it is possible but uncertain that Jane is clever. On the other hand, if David says 'Jane knows she's clever', then the second belief is that (2) David believes that Jane is clever, in other words, David is agreeing with Jane on this. One of the points to note in this example is that the word *know* expresses agreement with someone else's belief rather than 'justified true belief', as assumed in so much of the epistemological literature.

One of the functions of communication is to commend changes to the epistemic attitudes of the addressee, and this commonly involves the simultaneous expression of both the speaker's attitude and his belief about the addressee's attitude. If David says to Mary, 'Jane *did* break a

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[68] See Lambrecht, *Information Structure and Sentence Form: Topic, Focus and the Mental Representations of Discourse Referents* (Cambridge: Cambridge University Press, 1994), 52–53. If David gives emphatic stress to the word *Mary*, then he communicates a belief that Mary thinks someone besides Jane broke the cup.

saucer', then he is expressing two beliefs which differ only in attitude: (1) David believes that Jane broke a saucer, and (2) David believes that Mary doubts that Jane broke a saucer. His goal in saying this is to acknowledge Mary's doubt and to remove it by strengthening her epistemic attitude towards this proposition. In English he could emphasize his epistemic confidence by using epistemic qualifiers such as *indeed* or *really did*. This illustrates the **supportive function** of communication, in which the speaker seeks to support or modify the epistemic attitude of his addressee towards some proposition.

Hermeneutical implications

It is evident that the meaning of an utterance is quite complex. The author not only conveys a proposition and an attitude towards it, he conveys a metarepresentation of the addressee's closest counterpart to it. Thus the task of interpretation involves recovery of both what the speaker conveyed regarding both his own concepts and beliefs and his model of the addressee's related concepts and beliefs. In spoken English the information structure of utterances is usually indicated by intonation, although there are a few constructions and words that can indicate it as well. In Koiné Greek, however, the information structure is indicated primarily by word order, so unlike English, it is recoverable from written texts. Thus analysis of the Greek text (and Greek language) can be enhanced by a naturalized hermeneutic that includes a sociocognitive understanding of information structure and of the role of metarepresentational models in communication.

It was noted that one of the functions of communication is to **strengthen** or **weaken** the attitudes of other people towards a proposition. The speaker does this by asserting his own attitude towards it, by citing evidence in support of it or against it, or by arguing for its plausibility and coherence or lack thereof. The statement of Peter cited in (8) above exemplifies an assertion aimed largely at strengthening the epistemic attitude of his audience, as indicated in the words *therefore know for certain*. Paul, on the other hand, makes a proposal to Philemon and supports it with appeal to its mere plausibility. His proposal (in Philemon 1:15) is for Philemon to forgive Onesimus and accept him back as a brother in the family of God, on the grounds that 'this perhaps is why he was parted from you for a while, that you might have him back forever'. Here the proposition is partially implicit, namely that God caused Onesimus to part from Philemon so that he might encounter Paul, come to faith in Jesus Christ, receive the promise of eternal life in the Kingdom of God, and return to Philemon as an eternal spiritual brother. The epistemic attitude expressed by Paul appears to be one of plausible possibility. Paul encourages Philemon, on the basis of this plausibility, to make a positive deontic evaluation of Paul's proposal that he forgive Onesimus and accept him back as a brother in Christ.

Sentences can reflect both the speaker's attitude towards a proposition and the speaker's belief regarding the attitude of the addressee or others, whether current attitude or anticipated attitude. If the speaker anticipates his assertion will meet with doubt, reluctance, or surprise on

the part of his addressees, then he can strengthen his assertion by acknowledging its unexpectedness and asserting it with assurance. In Greek this is done by fronting the focal information to the beginning of the clause or sentence. An example is Luke's account of the transfiguration, in which Peter says to Jesus (9:33), 'Master, it is good that we are here. Let us make three tents, one for you and one for Moses and one for Elijah.' Luke adds that Peter did not know what he was saying. The problem is that Peter was treating Jesus as equivalent in authority to Moses and Elijah and hence to the Law and the Prophets. The response is a startling voice from above (v. 35), saying οὗτός ἐστιν ὁ υἱός μου ὁ ἐκλελεγμένος, αὐτοῦ ἀκούετε. This last clause, αὐτοῦ ἀκούετε, has the direct object fronted, as in *him heed*. This fronting serves to acknowledge Peter's epistemic reluctance to recognize the pre-eminence of Jesus and to assure Peter that Jesus does indeed supersede the Law and the Prophets. One could produce a pragmatic equivalent in English by using pseudo-cleft sentences: '*This* is the one who is my Chosen Son. *He* is the one whom you should heed.'

An example of anticipated epistemic reluctance is found in John 1:1:

> Ἐν ἀρχῇ ἦν ὁ λόγος, καὶ ὁ λόγος ἦν πρὸς τὸν θεόν, καὶ θεὸς ἦν ὁ λόγος.
> In the beginning was the Word, and the Word was with God, and the Word was God.

The statement that 'the Word was *with* God' makes the statement following it seem incongruous, namely that 'the Word was God'. John seems to anticipate the epistemic doubt that this dissonance might create, and so he fronts the focal information in Greek, as in 'God was the Word'. He then makes θεός 'God' anarthrous, as is normal in this construction, to show that it is the predicate noun and hence that λόγος 'Word' is the subject. In English the focal information is usually at the end of the clause, except in cleft sentences, but final position does not indicate anticipated dissonance or give epistemic assurance. To do that one must (1) mark intonational emphasis or (2) add emphatic pronouns. So a pragmatic equivalent in English would be (1) 'the Word was *with* God, and the Word *was* God' (using emphasis) or (2) 'the Word was with God, and the Word was God Himself' (using emphatic pronouns).

The difference between additive and supportive communicative functions is involved in the extensive discussion in the literature about the purpose of John's Gospel, as described in the first purpose clause in John 20:31, which Fee has described as a 'mystery':[69]

(9) ταῦτα δὲ γέγραπται ἵνα πιστεύ[σ]ητε ὅτι Ἰησοῦς ἐστιν ὁ χριστὸς ὁ υἱὸς τοῦ θεοῦ, καὶ ἵνα πιστεύοντες ζωὴν ἔχητε ἐν τῷ ὀνόματι αὐτοῦ
but these are written so that you may believe that Jesus is the Christ, the Son of God, and that by believing you may have life in his name.

Ignoring for now the textual variation in the verb πιστεύ[σ]ητε 'believe', consider the copular clause ὅτι Ἰησοῦς ἐστιν ὁ χριστὸς ὁ υἱὸς τοῦ θεοῦ 'that Jesus is the Christ the Son of (the)

[69] Fee, *To What End Exegesis? Essays Textual, Exegetical, and Theological* (Grand Rapids: Eerdmans, 2001), 29.

God'. In Greek it is common for names to have the article, particularly when (1) they are referential in usage, (2) the person so named has already been introduced in the discourse unit, and (3) the person so named is one of the main participants the discourse unit. This is the pattern with the name Ἰησοῦς 'Jesus' in all four of the Gospels, although John varies somewhat from the others.[70] But in the copular clause of John 20:31, the proper noun Ἰησοῦς is anarthrous. This indicates that *Jesus* is predicative and the subject is *The Christ the Son of God*.[71]

Many commentators assume that this syntax indicates that John's illocutionary intent is additive, namely that he is addressing the question 'Who is the Messiah?'[72] While there is good evidence that Ἰησοῦς 'Jesus' is predicative in this clause, that does not necessarily mean it is additive and hence an answer to the question 'Who is the Messiah?' This presupposes that the readers held no proposition regarding the identity of the promised Messiah, and that John is now informing them that it is Jesus, with the intended cognitive effect of adding this proposition to their knowledge as new information. But the illocutionary intent could be to strengthen the audience's epistemic attitude towards a proposition they already have in their memory, namely that Jesus is or might be the Messiah. In the case John's purpose is not to answer the question 'Who is the Messiah?' but rather the question 'Is it really Jesus who is the Messiah?' or more simply 'Is *Jesus* really the Messiah?' The confirming answer is 'Jesus really *is* the Messiah' or 'Jesus is *indeed* the Messiah', and either of these would be a fair translation of the clause.

Thus a cognitive understanding of epistemic attitudes and contextual models leads to a sociocognitive understanding of the strengthening function of communication, and together they provide a conceptual tool for exegetical analysis.

1.3. The formation and evaluation of beliefs

1.3.1. Belief formation

A reconstructive hermeneutic must provide guidelines for the epistemic evaluation of candidate interpretations of the author's informative intent. From a cognitive perspective there are two ways to approach epistemic evaluation: descriptive and prescriptive. Traditionally, analytic

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[70] For a description of usage patterns in the Gospel of John, see Fee, 'The Use of the Definite Article with Personal Names in the Gospel of John', *New Testament Studies*, 17 (1971), 168–83.

[71] Similar examples of this construction occur at Acts 5:42; 18:5, 28 where the New Living Translation expresses the phrase in English as 'The Messiah you are looking for is Jesus.' For the use of ἵνα to mark metarepresentations of thoughts and beliefs, see Sim, 'A Relevance Theoretic Approach to the Particle ἵνα in Koine Greek', PhD Thesis (University of Edinburgh, 2006).

[72] Carson, *The Gospel According to John* (The Pillar New Testament Commentary Series; Grand Rapids: Eerdmans, 1991), 662.

epistemologists have debated issues of normativity without reference to psychological processes. Kornblith argues therefore that questions of epistemic normativity should be grounded on empirical descriptions of cognitive process:

> Questions about how we actually arrive at our beliefs are thus relevant to questions about how we ought to arrive at our beliefs. Descriptive questions about belief acquisition have an important bearing on normative questions about belief acquisition.[73]

Plantinga concurs with Kornblith's statement and goes on to assert that 'the most plausible way to think of warrant, from a theistic perspective, is in terms of naturalistic epistemology'.[74] He notes that a belief has warrant only if one's cognitive apparatus is functioning properly.[75] There are aspects of that cognitive functioning that are significant for both descriptive and prescriptive accounts of epistemic evaluation.

There are numerous reasons why epistemology and hermeneutics should consider descriptive accounts of belief formation, but the main one, perhaps, is that cognizers should be aware of how cognitive processes affect their epistemic evaluations, and in particular how their language and conceptual system bias their evaluation of candidate beliefs. Only then can they make allowances for these biases and hope to improve the objectivity and quality of their evaluations. As applied to hermeneutics, this entails the interpreter becoming aware of her own biases with regard to interpretation, so she can consider alternative interpretations more seriously and evaluate them more fairly.

Of the many biases that have been identified, perhaps the most important for belief formation and evaluation is the **confirmation bias**. Jonathan St. B. T. Evans describes this as 'perhaps the best known and most widely accepted notion of inferential error'.[76] Moskowitz distinguishes three kinds of confirmation bias, and he cites numerous empirical studies in support of their pervasiveness in people's automatic cognitive processes. One is the **bias for seeing expectancy-congruent information**.[77] This occurs when a person's cognitive system uses the schemata of its own conceptual system to interpret the world, including the remarks and actions of other people. In other words, this bias affects all automatic processing and most non-critical controlled processing. The result is that it favours 'information consistent with existing schemas' and either disregards the rest or skews it to fit.[78] This includes the tendency of people to interpret and remember extracultural stories in ways accommodating their own

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[73] Kornblith, 'What is Naturalistic Epistemology?', 3.

[74] Plantinga, *Warrant and Proper Function*, 45–46.

[75] Plantinga, *Warrant and Proper Function*, 4, passim.

[76] Evans, *Bias in Human Reasoning: Causes and Consequences* (Hove, Sussex: Erlbaum, 1989), 41., as cited in Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises', *Review of General Psychology*, 2/2 (1998), 175–220, 175.

[77] Moskowitz, *Social Cognition*, 178.

[78] Moskowitz, *Social Cognition*, 178–180.

cultural expectations, as evinced in the way they retell them.[79] This manifests itself hermeneutically as the tendency of readers to interpret the text in terms of their own culture and conceptual system.

The second form of confirmation bias is **biased hypothesis testing**, which Moskowitz describes as 'the tendency to seek evidence that confirms one's existing expectancies (hypotheses) and to neglect the gathering of evidence/information that would disconfirm one's expectancies'.[80] This bias afflicts everyone but is particularly detrimental for the advance of scholarship and science, because one's confidence in a hypothesis is unwarranted if no one has attempted to falsify it. This manifests itself in hermeneutics as the tendency of readers to interpret Scripture in accord with their own theology rather than letting Scripture challenge and enrich that theology. It is especially evident in the use of proof texts carefully chosen to support a pre-existing theology, while contrary passages are ignored.

A third bias is **seeing what isn't there**, in which people see evidence for their beliefs 'even when such evidence does not exist'.[81] This happens because people's perceptions conform to their concepts and reinforce their stereotypes and beliefs and because people do not seek evidence that would falsify their beliefs and concepts or that would mitigate the other evidence on which these are based. An example is when sceptics read the Gospels as if Jesus never considered himself to be the Messiah and meant nothing special by his self description as *the Son of Man*. This also happens when people see reincarnation taught in the Bible.[82] A more innocuous example is the one given earlier in §1.2.2 of John 3:16, in which many people see reference to the death of Jesus and the suffering of God, although these are neither mentioned in the text nor implicated by it.

A related cognitive process to consider is dual processing. This term is applied to more than one set of processes. The first set was discussed in §1.2.2, with regard to both conceptual and episodic information. Here the dual processes are truly different and truly simultaneous, one **top-down** and one **bottom-up**, processing the same input. Here is how it reportedly works:[83] When a person observes the world, hears an utterance, or reads a text, she looks at details and

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[79] For examples and discussion see Guenther, 'Memory', in Daniel J. Levitin (ed.), *Foundations of Cognitive Psychology* (Cambridge, MA: MIT Press, 2002), 311–359, 315–318.

[80] Moskowitz, *Social Cognition*, 180–182.

[81] Moskowitz, *Social Cognition*, 182–183.

[82] Hilborn shows that the biblical authors neither taught reincarnation nor disputed it, but argues that the doctrine of resurrection implies a person had one body. See Hilborn, *The Nature of Hell: A Report by the Evangelical Alliance Commission on Unity and Truth Among Evangelicals* (London: Acute, 2000).

[83] There is a huge literature on this topic. See the volume of essays in van Oostendorp and Goldman (eds.), *The Construction of Mental Representations During Reading* (Mahwah, NJ: Lawrence Erlbaum Associates, 1999). For a broad introductory description of dual cognitive processing, see MacDonald, 'Language', in Edward E. Smith and Stephen M. Kosslyn (eds.), *Cognitive Psychology: Mind and Brain* (Upper Saddle River, NJ: Prentice-Hall, 2006), 482–531, 496–514.

seeks to fit them into a schema. At the same time, however, she is applying highly accessible schemata to what she observes, looking for details that fit them. They are accessible because they are frequently activated, or because they were recently activated, or because they were primed by their links to other schemata which were recently evoked. The bottom-up process tries to find schemata to fit the incoming perceptual information, testing first those which are most accessible. The top-down process tries to find data to fit the most active schemata. When matches are found, this strengthens the schemata in which matches were found, narrowing the possibilities. Here one sees the confirmation bias at work, not only in the structure of the schemata, but in the order in which they are tested, which is based on accessibility. So in a culture, profession or academic circle where certain schemata are frequently accessed, the mind will try to fit data to these first, and try others only if these fail. This dual process also represents a kind of hermeneutical circle, in which there is a constant interplay between parts and wholes until they are matched up to a satisfactory degree, in which case the successful schema or concept is evoked to the mind as the interpretation of the data. Thus the hermeneutical spiral is not a vicious circle but a virtuous one. It is not simply a philosophical construct but a basic cognitive process. It can be made a consciously controlled process for the purpose of forming and evaluating important beliefs, including interpretations.

Another application of dual processing (the hermeneutical circle) is when a reader applies an erroneous schema or context and must revise her interpretation in the light of subsequent cotextual information, as in these examples:

> The man saw the girl with the telescope. She was carrying it under her arm.
>
> 'Time flies for me', said the entomologist to his assistant, who held the timer.

These examples illustrate a result of empirical research in reading theory that 'human language processing may often be incomplete and that partial interpretation can occur at almost any level of analysis'.[84] In other words, the mind makes tentative and incomplete interpretations subject to confirmation or revision by subsequent information. A reader can revise her interpretation of a sentence or partial sentence in light of the subsequent cotext.

Hermeneutical example

A biblical example of cotextual disambiguation is 1 Tim 2:12:

> διδάσκειν δὲ γυναικὶ οὐκ ἐπιτρέπω οὐδὲ αὐθεντεῖν ἀνδρός, ἀλλ' εἶναι ἐν ἡσυχίᾳ
>
> I do not permit a woman to teach or to exercise authority over a man; rather, she is to remain quiet.

The Greek terms, however, are polysemous and could be translated another way:

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[84] Garrod and Sanford, 'Incrementality in Discourse Understanding', in Herre Van Oostendorp and Susan R. Goldman (eds.), *The Construction of Mental Representations During Reading* (Mahwah, NJ: Lawrence Erlbaum Associates, 1999), 3–27, 25.

> I do not permit a wife to issue directives to a husband or assert authority over him; rather, she should be amiable.

Is Paul talking about a relationship between wives and their husbands, or between women and all men, or as traditionally claimed, between women and a church congregation with males present? There is a vast literature on this subject, and it is not the point here to survey the literature, evaluate the arguments, and resolve the issue, but only to show how consideration of subsequent co-text in the same topic span can sometimes reveal the schema that was operative in the author's mind. In this case, as Paul continues this paragraph in 1 Timothy 2:11–15, he gives a rationale for his prohibition. He speaks of Adam and Eve, a husband and wife, and Eve directing her husband to eat the forbidden fruit, but being redeemed by motherhood. This suggests that the schema that was active in Paul's mind when he wrote this paragraph is the marriage schema. If so then Paul is forbidding wives to issue orders to their husbands or to dominate them, and to relate to their husbands in a composed and sedate manner rather than being quarrelsome.

Thus a sociocognitive hermeneutic can provide conceptual tools for helping to disambiguate disputed passages like this one. This can, of course, be approached in terms of literary structure, but in real communication the functioning of literary structure depends on automatic cognitive processing rather than on readers making a literary analysis of a passage. As it happens, literary critics often suggest quite divergent structures for the same text. It was this very fact which led to the abandonment of literary structuralism and the rise of post-structuralist pessimism.

Summary

- The human cognitive system automatically processes a vast amount of input, disregards much of it, and makes sense of the rest as rapidly as it can. But its very efficiency leads it to interpret and evaluate input in accord with its current schemata, values and beliefs, and in accord with their accessibility. Its fears and desires can affect processing such that it sees favourable evidence where none exists and overlooks unfavourable evidence.
- Cognizers can assert a certain amount of conscious control over the processing of information to improve the reliability of resultant beliefs.
- The mind engages simultaneously in top-down and bottom-up processing of incoming information, seeking to match data and schemata. The hermeneutical circle can be seen as a controlled form of this process.
- Cognizers can reduce the effects of bias by becoming more aware of their own conceptual system and of alternative ways of conceptualizing things. A mind unaware of other conceptual systems is the unwary slave of its own; a mind that knows many is slave to none.

Hermeneutical implications

The points above have an evident bearing on interpretation that does not need to be repeated. The facts of confirmation bias have long been noted by hermeneuts. As Albee puts it, 'The point of this for hermeneutics is that people have a personal and emotional investment in their ideas and interpretive frameworks.'[85] Cognitive science, however, illuminates the specific confirmation biases that lead readers to interpret authors in accord with their own conceptual systems, especially when they use uncritical, passive reading (i.e., when relying on automatic processing). This helps interpreters to recognize their biases and make allowances for them, keeping ones they deem non-negotiable and suppressing the others.[86] They can reduce the effects of bias in part by becoming aware of their own conceptual system, by learning the conceptual system assumed by the author, by noting the differences between them, and by applying this knowledge in a controlled and self-critical interpretation of the author. They can enhance this process by recognizing their emotional and intellectual commitments and making allowances for them, as well as by gathering and considering alternative interpretations. This cannot happen, of course, unless the interpreters value objective truth more than subjective confirmation.

[85] Allbee, 'Epistemology, Hermeneutics, and Character Development: A Brief Essay on the Importance of Hermeneutics', *A Journal for Christian Studies,* 12 (1993), 83–92.

[86] For many confessing interpreters of the Bible, the ecumenical creeds constitute an acceptable bias, on the grounds that they constitute a theological interpretation to which there has been broad agreement over many centuries.

2. Hermeneutics and Naturalized Epistemic Evaluation

The intellect, emotion, and will are integrated and are all involved in knowing … this is also true for hermeneutics.
— Rick Allbee, 1993[1]

The beliefs face the tribunal of observation not singly but in a body.
— Quine and Ullian, 1978[2]

If Christianity is the truth,
then all the philosophy that is written about it is false.
— Wittgenstein, 1949[3]

2.1. Truth

Donald Davidson has argued that the fact that people have beliefs proves that they have a concept of truth and an ability to make epistemic evaluations of truth claims.[4] If so, then epistemic evaluation is not a philosophical construct doomed by postmodern relativism but is a natural human process. People also want their decisions to be based on information that is true rather than false, because survival itself can depend on an ability to form reliable beliefs.[5] According to Plantinga (and others), the very purpose of people's cognitive faculties is to produce true beliefs, which they can do when functioning properly for that purpose in the environment for which they were designed.[6] Of course, cognitive faculties do not always function properly. As noted in the discussion of biases, people often prefer convenient beliefs that require little processing and make few personal demands, especially moral demands. Jesus described this as loving 'the darkness rather than the light' (John 3:19). Yet even those people hope their beliefs are true, because they know that false beliefs lead to bad decisions with undesirable outcomes. Therefore there is a place in naturalized epistemology to discuss the proper functioning of our cognitive faculties for the purpose of making reliable epistemic

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[1] Allbee, 'Epistemology'.

[2] Quine and Ullian, *The Web of Belief* (2nd edn.; New York: Random House, 1978), 22.

[3] Wittgenstein, *Culture and Value*, trans. Peter Winch (Chicago: University of Chicago Press, 1984), 83e. He believed it was the truth, as presented in the Gospels.

[4] See Davidson, 'Truth Rehabilitated', in Robert B. Brandom (ed.), *Rorty and His Critics* (Oxford: Blackwell, 2000), 72.: 'It is possible to have a belief only if one knows that beliefs may be true or false … Without a grasp of the concept of truth, not only language, but thought itself, is impossible.'

[5] See discussion in Plantinga, *Warrant and Proper Function*, chap. 12.

[6] Plantinga, *Warranted Christian Belief*, 146.

evaluations about matters of importance to us.[7] This is a point that Kornblith emphasizes as well:

> I have argued that epistemic evaluation finds its natural ground in our desires in a way that makes truth something we should care about, whatever else we may value. This provides us with a pragmatic account of the source of epistemic normativity, but an account that is universal and also allows truth to play a central role. Pragmatists have typically suggested that epistemic evaluation will have little to do with truth; but if I am right, it is for pragmatic reasons that truth takes on the importance it does in epistemic evaluation.[8]

While humans lack a God's-eye view of truth or certainty about their beliefs, they can nevertheless hope to approximate the truth. As Plantinga puts it, true belief is the *aim* of our cognitive faculties. He also notes, however, that 'truth is not independent of mind; it is necessary that for any proposition p, p is true only if it is believed, and if and only if it is believed by God'.[9] Since humans lack a God's-eye view, they generally have to strive for beliefs with an epistemic status that, as Alston says, 'renders the belief at least likely to be true', based on a range of criteria.[10] Those criteria apply to the evaluation of candidate interpretations of a text as much as to other propositions about historical events. As a consequence, a reconstructive hermeneutic is possible only if there is an epistemological foundation to support it, and that is the subject of this chapter.

2.2. Critical realism

Rorty popularized a radical postmodern relativism that emphasizes epistemic fallibilism to the extent of denying the validity of epistemology and epistemic evaluation,[11] and a number of postmodern hermeneuts have followed this path.[12] A different path is taken by critical realists, who accept both truth and human fallibilism, and who trust in human ability to make provisional epistemic evaluations that can approximate truth. 'In this sort of way', Bhaskar notes, 'critical realism claims to be able to combine and reconcile ontological realism, epistemological relativism and judgmental rationality.'[13] This puts a check on both relativism

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[7] The final qualification on scope is from Alston, *Beyond Justification*, 29.: 'Along with many other epistemologists I suggest that the primary function of cognition in human life is to acquire true rather than false beliefs about matters that are of interest or importance to us.'

[8] Kornblith, *Knowledge*, 161.

[9] Plantinga, 'How to be an Anti-Realist', *Proceedings and Addresses of the American Philosophical Association*, 56/1 (1982), 47–70, 68.

[10] Alston, *Beyond Justification*, 36, passim.

[11] Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979).

[12] See for example Adam (ed.), *What Is Postmodern Biblical Criticism?* (Minneapolis: Augsburg Fortress, 1995).

[13] Bhaskar et al., 'General Introduction', *Critical Realism: Essential Readings* (London & New York: Routledge, 1998), 11.

and overconfidence in one's concepts and objectivity. Most importantly, it means 'that it is possible to evaluate competing theories on cognitive grounds'.[14]

Paul acknowledged both of these epistemological constraints in his *speculum obscurum* passage:

> For now we see in a mirror dimly, but then face to face. Now I know in part; then I shall know fully, even as I have been fully known. (1 Cor 13:12)

The images reflected in a first-century polished-metal mirror were indistinct, but they did represent objects, and they did reveal something about those objects, but the quality was not as they 'actually are'. Similarly our percepts of external reality are largely phenomenal and are mediated by the conceptions inherited from our cultures and traditions, but they do allow us to learn things about the world and to infer something about its creator.

Hermeneutical implications

Positivism said that historical events were unobservable, so statements about them were unverifiable, subjective, opinions, or else nonsense. Phenomenology took the view that statements about the past were reflections of one's experience of its legacy and traditions of the past. So neither philosophy supported historicist approaches to historical truth and reconstruction. One of the advantages of post-positivist realist epistemologies is that they do not exclude areas of inquiry just because they are difficult to investigate or observe. Historical events are in the same epistemological sphere as other objects of knowledge, because none can be verified and all require critical thinking to form interpretations that can be evaluated as probable, coherent, or practical (depending on one's position). Speech events of the past are historical events like any others. As Austin noted long ago, producing a text or utterance is 'an historic event, the utterance by a certain speaker or writer of certain words (a sentence) to an audience with reference to an historic situation, event or what not'.[15] The epistemic status of the utterance or text then depends on how well its interpretation correlates with the historical situation.[16]

The evidence for speech events is like that for other historical events: ancient documents, artefacts, and archaeological finds. Mostly, however, it consists of documents and inscriptions. Historians use such evidence to try to reconstruct the events of the past as best they can and to interpret their meaning at the time and often their significance for today. The goal of reconstructive hermeneutics is to reconstruct as well as possible the speech events of the past, their meaning, and their significance for life and scholarship today. This historicist approach requires research into relevant aspects of the cultures, conceptual systems, linguistics, rhetorical

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[14] Groff, *Critical Realism, Post-Positivism and the Possibility of Knowledge* (London & New York: Routledge, 2004), 137.

[15] Austin, 'Truth', *Philosophical Papers* (3rd edn.; Oxford and New York: Oxford University Press, 1979 [1950]), 117–133, 119–120.

[16] Austin, 'Truth', 121–122.

techniques, historical situations, and interpersonal relations of the authors and their envisaged audiences, as well as ways in which the authors have translated, summarized, and interpreted events to their audiences.[17] The goal is not simply to discover who said what when and where, but much more so to reconstruct the transfers of knowledge that would have occurred. In particular, from the evidence at our disposal, what can we say about the changes that are likely to have occurred in the concepts and beliefs of the addressees as a result of the speech event? Positivist, phenomenological, and relativist epistemologies deny the legitimacy of such research, but post-positivist realist epistemologies like critical realism affirm it. The issue then is how to interpret the evidence and evaluate competing interpretations of it.

Hermeneutic points

- Historical speech events are as real as any other historical event, with historical authors who sought to communicate information to a group of addressees in a particular context or set of contexts. All of these are legitimate objects of research, including inquiry into the information that was communicated.
- In order to maximize the reliability of their reconstructions of the original communication, interpreters must become aware of the sociocognitive factors that influence their thinking and, without denying them, seek to minimize their biasing of the hermeneutical process. Thus they neither pretend to have an objective disinterest nor surrender to their subjective biases.
- It is impossible to discover with certitude what an historical author communicated to his original audience, but it is possible to make multiple plausible historical reconstructions, evaluate them epistemically, and select the most probable. According to Clayton, 'the highest epistemic status we can attribute to a theory' (including a doctrine or interpretation) is 'not yet falsified, despite our best efforts'.[18] (Chapters 5 and 6 will provide cognitive grounds on which one can propose and falsify interpretations of communicative intent.)
- Criteria for evaluating candidates for belief include resistance to falsification, coherence within the discourse, and coherence where relevant to what is known of the author, the audience, their culture, their language, their common literature, and their situation. (Additional criteria will be discussed in §2.5, such as being consistent with a proper functioning of cognitive processes, with these latter being described subsequent chapters.)

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[17] For discussions of the crucial need for historical research into the text and its background, see Osborne, 'Historical Criticism and the Evangelical', *Journal of the Evangelical Theological Society*, 42/2 (1999), 193–210; Turner, 'Hermeneutics'. Unfortunately both authors describe this as 'historical criticism', a term which they, like others, also use in reference to the historical-critical method.

[18] Clayton, 'Philosophy of Science: What One Needs to Know', *Zygon*, 32/1 (1997), 95–104, 102.

2.3. N. T. Wright's storied critical realism

N. T. Wright proposed his own 'storied' and 'relational' version of critical realism, and this has had a significant impact on biblical hermeneutics. I note below the core features of Wright's theory, under the headings of *knowledge*, *epistemic evaluation*, and *critical self-awareness*:

Wright's theory of knowledge

> Critical realism (as I am proposing it) sees knowledge of particulars as taking place within the larger framework of the story or worldview which forms the basis of the observer's way of being in relation to the world.[19]
>
> This critical-realist theory of knowledge and verification, then acknowledges the essentially 'storied' nature of human knowing, thinking and living, within the larger model of worldviews and their component parts. It acknowledges that all knowledge of realities external to oneself takes place within the framework of a worldview, of which stories form an essential part.[20]

Wright focuses on the role of stories, for which he acknowledges some indebtedness to the narrative theories of Frei and Ricoeur, as well as to Thiselton.[21] This emphasis provides a needed corrective to the traditional Western focus on conceptual knowledge. On the other hand, it risks being an overcorrection, a swing of the theological pendulum from conceptual knowledge to episodic. Both forms of knowledge were discussed in §1.2 as the two kinds of knowledge in declarative long-term memory. However, they are tightly integrated: Stories and events provide content for concepts, while concepts provide constituents for the schemata that form stories. Logically, episodes and singular concepts constitute the instances from which general concepts are formed by inductive generalization. Hans Frei recognized the importance of episodes and their analogical application, but he needlessly opposed the practice of seeking abstract truths within them, i.e., general concepts.[22] Wright seems to have fallen into the same overcorrection.

Although Wright mentions stories and beliefs, he does not mention the schemata by which the mind perceives, structures, and stores one's stories and beliefs. So his model needs to be augmented with a theory of concepts, schemata, and the conceptual system, including the interdependence of conceptual and episodic knowledge. It also needs augmentation with a theory of modelling other people's knowledge, intentions, and actions (i.e. in the mirror neuron system).

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[19] Wright, *The New Testament and the People of God*, 37.

[20] Wright, *The New Testament and the People of God*, 45.

[21] See for example Ricoeur, *Time and Narrative*, trans. Kathleen Blamey et al. (Chicago: University of Chicago Press, 1984). See Thiselton's account of narrative in Thiselton, *New Horizons*.chap. XV §3 For narrative as a self-sufficient genre for conveying meaning, Wright (p. 39) cites Frei's *Eclipse*, as below.

[22] See Frei, *The Eclipse of Biblical Narrative: A Study in Eighteenth and Nineteenth* (New Haven and London: Yale University Press, 1974).

Wright's axioms of critical self-awareness

> First, the observer is looking from one point of view, and one only; and there is no such thing as a god's-eye view ... available to human beings....
>
> Second, and consequent upon this, all humans inevitably and naturally interpret the information received from their senses through a grid of expectations, memories, stories, psychological states, and ... worldview …
>
> Thirdly, and most importantly, where I stand and the (metaphorical) lenses through which I look have a great deal to do with the communities to which I belong. Every human community shares and cherishes certain assumptions, traditions, expectations, anxieties, and so forth, which encourage its members to construe reality in particular ways, and which create contexts within which certain kinds of statements are perceived as making sense.[23]

An implication of Wright's axioms is that observers should be as critically aware as possible of how each of these three sources of influence are affecting their own observations and interpretations and make allowances for them in their epistemic evaluations. People's knowledge of such matters remains tacit, meaning mostly unconscious and automatic, until they begin to learn and model the cultures, worldviews, and conceptual systems of other people. One of the best ways to do this is to study the stories that form or reflect their worldview. In science and scholarship this means learning the paradigms (conceptual frameworks) of other schools of opinion, as well as the paradigmatic exemplars followed by those schools. This is a lot of work, but researchers remain unwitting slaves to their conceptual systems until they make themselves aware of them by learning about other systems and how they differ from their own. It is only when they are familiar with multiple paradigms that they can analyze and evaluate an issue from multiple perspectives, as advocated by Frame and Poythress.[24]

Epistemic evaluation

Wright offers only a few remarks about belief formation and evaluation:

> The critical realism offered here is therefore essentially a *relational* epistemology, as opposed to a detached one. The stories through which it arrives at its (potential) true account of reality are, irreducibly, stories about the interrelation of humans and the rest of reality (including, of course, other humans) … And it sets up as hypotheses various stories about the world in general or bits of it in particular and tests them by seeing what sort of 'fit' they have with the stories already in place.[25]

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[23] Wright, *The New Testament and the People of God*, 36.

[24] See Frame, *The Doctrine of the Knowledge of God* (Grand Rapids: Baker, 1987); Poythress, *Symphonic Theology: The Validity of Multiple Perspectives in Theology* (Phillipsburg: Presbyterian and Reformed, 1987).

[25] Wright, *The New Testament and the People of God*, 45.

It seems clear that his system of knowledge begins with foundational stories and then evaluates other stories in accord with their coherence to the existing network of stories and in accord, presumably, with their analogical explanation of experience and other data.

Hermeneutical implications

Wright's three axioms of critical self-awareness have obvious parallels to the hermeneutical task:

- Human comprehension of speech events is dependent (1) on the interpreter's subjective cognitive processes; (2) on the structure of her knowledge, especially her individual worldview; and (3) on the social cognition of the cultural community in which the individual participates, maintained in its shared customs, language, concepts, and worldview.

Wright's theory of knowledge obliges the interpreter to learn the worldview and supporting stories assumed by the author, as well as the situational context that he assumes his readers will know. Wright's theory of evaluation obliges the interpreter to prefer interpretations that fit with the worldview, metanarrative, and context assumed by the author. This in turn obliges the interpreter to investigate the worldview and historical situation of the author, even though it cannot be recovered in full or with any certitude, so she can hear what the author is saying and assuming without imposing her own world onto him.[26]

2.4. Critique of critical realism

Critical realism arose long before the cognitive revolution, and practitioners have been slow to embrace it. Nellhaus is one of the few critical realists who has advocated incorporation of cognitive science. He lists four ways in which doing so would be beneficial:

> First, critical realism's understanding of the mind/body relationship;
> second, its concepts of the process that connects theory and practice, and what that means for critical realism's view of intellectual production, the place of metaphor in scientific theorization, and cultural development;
> its view of culture as a complex whole;
> and finally, its theory of human agency as embodied and intentional.[27]

All of these are relevant for hermeneutics, and many more will be adduced in later chapters, all illustrating the need for a more cognitive approach.

Critical realists could learn from Lakoff and Johnson's *Philosophy in the Flesh* cognitive approach to epistemology. They show that people conceptualize the world in terms of their physical nature and their situated spatio-temporal perspectives, such that even concepts of

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[26] See Wright, *The New Testament and the People of God*, 55–61, 64.

[27] See Nellhaus, 'Embodiment', 103.

abstract ideas are constructed on analogy with concepts of physical and bodily categories, giving them a metaphorical character that analysts often fail to notice or understand.

Lakoff and Johnson reach some conclusions that are similar to critical realism, but with a clearly cognitive orientation:

- There is an external reality, but there is no direct correspondence between concepts and reality or statements and reality; all such correspondences depend on the mediation of human cognitive processes.[28]
- Perhaps 95% or more of cognitive processes operate in the 'cognitive unconscious' yet it shapes and structures all conscious thought.[29]

One consequence of this latter point is that concepts and reasoning processes lack objectivity, especially during automatic cognitive processing.[30] Another is that most of an author's 'intentions' are below his conscious consideration, as are the processes by which the reader infers those intentions. The interpreter must therefore look for ways to model these sociocognitive processes in a deliberate and conscious way. Thus a sociocognitive hermeneutic is needed.

2.5. Reliabilist criteria for epistemic evaluation

Reliabilism

In the previous sections I reviewed both the merits and shortcomings of critical realism. In this section I commend a semi-naturalized theory known as **reliabilism**, previously mentioned in §1.1 and §1.2, particularly the version of it utilized in **Reformed epistemology** (so called because its main advocates are in the Reformed tradition). John Frame gives a simple description of reliabilism:

> The highest level of justification-rationality for the human mind exists when a person has attained truth through the use of reliable belief-forming mechanisms that are in keeping with biblical norms.[31]

As noted earlier, from Plato until now, it was presumed that there was a process of justification that could verify whether a belief was true or false; knowledge was then defined as justified true belief. A problem with this claim is that experts have disagreed on which beliefs were

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[28] Lakoff and Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York: Basic Books, 1999), 98–102. Although Lakoff and Johnson do not mention her, a similar claim was made in 1942 by the philosopher Susanne Langer in Langer, *Philosophy in a New Key* (Cambridge, MA / London: Harvard University Press; Oxford University Press, 1942), 60–61.: 'Symbols are not proxy for their objects, but are vehicles for the conception of objects.'

[29] Lakoff and Johnson, *Philosophy in the Flesh*, 13. 'It is the rule of thumb among cognitive scientists that unconscious thought is 95 percent of all thought—and that may be a serious underestimate.'

[30] Lakoff and Johnson, *Philosophy in the Flesh*, 7.

[31] Frame, *The Doctrine of the Knowledge of God*, 397.

justifiably true. This has led many pragmatists to abandon the ideas of truth and realism, leading to postmodern relativism, but the reliabilists among them have advocated the substitute process of epistemic evaluation, which delivers a degree of confidence that a proposition is true, expressed as a probability. Reliabilism seeks foundations in the natural processes by which human knowledge is actually formed and stored, so it represents a more naturalized approach. Reliabilists have then emphasized that the reliability of epistemic evaluation depends on the quality of one's cognitive processing, as argued at length by Alvin Plantinga:

> Put in a nutshell, then, a belief has warrant for a person *S* only if that belief is produced in *S* by cognitive faculties functioning properly (subject to no dysfunction) in a cognitive environment that is appropriate for *S*'s kind of cognitive faculties, according to a design plan that is successfully aimed at truth. We must add, furthermore, that when a belief meets these conditions and does enjoy warrant, the *degree* of warrant it enjoys depends on the strength of the belief, the firmness with which S holds it.[32]

Note that a positive outcome to the evaluation process is one in which a belief is judged to be warranted to some degree, but that degree is generally less than certain.

Epistemic desiderata

Like Plantinga, Alston describes his approach as naturalized, although not to the extent that Quine first advocated.[33] Alston begins his argument with a clear break from standard approaches to the topic by saying that it is not possible to justify beliefs and that no single criterion for it has ever been demonstrated:

> I will go on the offensive and argue that the widespread supposition that 'justified' picks out an objective feature of belief that is of central epistemic importance is a thoroughly misguided one. I shall argue that the perennial quest for what it is for a belief to be justified, and what are the necessary and/or sufficient conditions for such a status, is quixotic, of the same order as the search for the Fountain of Youth.

As evidence in support of his claim, Alston provides four pages of quotations from a variety of philosophers, each one defining what it means to justify a belief but each one defining it quite differently from the others.[34]

In place of justification, Alston proposes a pluralist approach to epistemic evaluation, based on ways in which our cognitive faculties actually produce and evaluate beliefs. He identifies and evaluates a number of truth-conducive factors that people do or could consider in the

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[32] Plantinga, *Warranted Christian Belief*, 156.

[33] Alston, *Beyond Justification*, 8. In all fairness, though, Quine later modified his position to accept a role for philosophical epistemology, which after all was his own specialty. Altson's approach might best be described as semi-naturalized, because it does focus on human cognitive capacities for epistemic evaluation, but it cites little empirical research in support of its claims.

[34] See Alston, *Beyond Justification*, 12–15.

process of forming and evaluating a belief. He calls these **epistemic desiderata**, and he describes this approach as **pluralist** epistemic evaluation.

These desiderata constitute a naturalized approach because they correspond to how people make reliable epistemic decisions—by considering a number of factors that bear on the issue. What Alston has done is to describe these desiderata and to evaluate their relative weights for normative epistemic evaluation, particularly for **critical thinking**, which we could define as well-informed, controlled cognitive processing. Critical thinking is required in reconstructive hermeneutics for evaluating proposals regarding the historical reconstruction of a communicative event and the informative intent of a speaker or author. Positivism provided a single criterion, direct verification, but this was limited in scope to currently observable phenomena; in the end it was rejected for all non-experiential claims, because observations are both embodied and theory-laden. The phenomenology of Gadamer rejected both method and objective truth, so it lacks criteria for evaluating candidates for belief that lie outside direct experience. Critical realism ignored cognitive functioning and failed to provide criteria for epistemic evaluation, other than coherence, which Alston relegates to the bottom of the list. So Alston's naturalized, reliabilist programme for epistemic evaluation is the only one that meets the needs of an historicist hermeneutic. It remains for future research to develop the theory in more detail, especially in application to historicist hermeneutics and biblical scholarship.

It is beyond the scope of the present work to review Alston's elaborations of all these desiderata, since that occupies most of his book, but a few comments would be appropriate. The most practical criteria are in his Group II, and these are of two main kinds: adequate grounds and proper cognitive functioning. These two kinds are not separable, because a properly functioning cognitive process will seek adequate grounds for its evaluations. Note that grounding implies an empirical approach, where appropriate, and that the cognitive functioning can be enhanced by consciously controlling it. Chapters 5 and 6 of the present work include descriptions of proper cognitive functioning in normal communication and interpretation, thereby providing additional hermeneutical tools and grounds for the evaluation of candidate interpretations. This is the heart of a naturalized hermeneutic.

The organization of human knowledge

Another aspect of Alston's theory that is naturalized is his account of the organization of human knowledge.[35] He describes human knowledge as organized on a foundationalist basis, while acknowledging the unfashionableness of the term. This is not the discredited 'classic' foundationalism, which claimed to have incorrigible beliefs as foundations; rather, it is the observation that certain beliefs are fundamental to a person's worldview and belief system and are held with a high epistemic attitude, while other beliefs are evaluated in part on the basis of their coherence with the foundational ones. High epistemic status generally comes from solid

[35] See Alston, *Beyond Justification*, chap. 11.

evidence. So the organization of human knowledge is foundational in structure, with a 'subsidiary coherentism' and a degree of evidentialism.

The same pattern can be seen in the interpretation of authors. Their informative intentions are clear in some parts of their message, and less so in others. The interpreter can evaluate the interpretation of clear passages with a high epistemic attitude, based on the evidence, then seek coherence in the interpretation of less clear passages. In other words, the interpretation of what a particular author meant by a certain text is more probable if it is coherent with what is known with some confidence of the author's belief system and informative intents.

Epistemic status

As noted previously, the output of an epistemic evaluation is the estimated probability of that belief being true. Unlike Plantinga but like cognitive scientists, Alston defines probability on the basis of frequency or expected frequency of correlation between similar pairs of grounds and true beliefs.[36] Medical doctors do this all the time. The correlation between symptoms and diseases is rarely static across all cases, so in each case the diagnosis is usually less than 100% certain. The doctor might consider different diagnoses for the patient, try to rule out some of them (falsify them), assign an epistemic status to each one that remains, and prescribe an initial treatment for the one that ranked the highest.

Max Turner, for example, has appealed to statistical frequency in his consideration of the meaning of κεφαλή 'head' in 1 Corinthians 11:3:[37]

> But I want you to understand that the head of every man is Christ, the head of a wife is her husband, and the head of Christ is God.

There is a large literature on this passage which cannot be surveyed here, except to note that the main interpretations under consideration are 'authority over' and 'source of'. Turner discusses this from many angles, but near the end of his argument he notes that there is little or no evidence for the second meaning, 'source of'. That constitutes a low statistical rank, to say the least. He then rightly observes that if Paul had wanted to use the word with this infrequent meaning, he would have created a context that required it or would have indicated to his readers that the normal meanings were to be excluded. Another way of saying this is that Paul would have blocked the unintended interpretation and provided clues for the intended one. But Paul did not do this, so the readers will assume the first sense, since it fits the context well, and they will never even consider the second. Paul would have known this, at an unconscious level, so we may presume that he intended the first meaning, since while both make sense, the first would have been more accessible due to more frequent usage. This principle of communication is discussed in Chapter 5 as 'the presumption of optimal relevance'.

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[36] Alston, *Beyond Justification*, 135.

[37] Turner, 'Modern Linguistics and the New Testament', 172.

Confirmation bias prompts people to favour a position that coheres with their worldview, traditions, or previous commitments, and then to argue for it, rather than to seek and evaluate alternative candidates for belief, but this latter process is critical. According to Alston, the process of comparing alternatives should conclude with an epistemic status assigned to each one, not just to the one that seems most likely or which is easiest to evaluate:

> Various candidates for the correct answer are scrutinized and evaluated for their epistemic credentials … Wherever there is a need for inquiry that involves comparative evaluation of alternative answers to questions, it is crucial to be able to determine the epistemic status of the alternatives.[38]

If one cannot evaluate the status of one of the plausible candidates, then the outcome of the process remains undecided or else very tentative.

Applied to hermeneutics, this entails that the interpreter identify the plausible candidate interpretations then evaluate each of them. If one or more plausible candidates cannot be evaluated due to insufficient grounds, then a comparison is not possible, and one is left with a set of candidate interpretations. For example, it remains unclear what the author or transmitter of Genesis 6 expected his readers or hearers to understand by the Hebrew word *nephilîm* in Genesis 6:4a:

> The Nephilim were on the earth in those days, and also afterward, when the sons of God came in to the daughters of man and they bore children to them.

To what or to whom was the author referring, and what properties was he ascribing to them with this term? There are inadequate grounds for a confident interpretation. Similarly for the *sons of God* in the same verse: there are three main candidates for the intended referents of this phrase, each with variations.[39] One candidate is that the reference is to young nobles, who were exercising *droit du seigneur* over the young women of their realm or conscripting them into their harems. This is how the passage was translated in the ancient Aramaic and Arabic translations and in the Greek translation of Symmachus. A second candidate is that the 'sons of God' are the descendents of Seth or a godly remnant, who were marrying ungodly women, a view found in some Patristic, Orthodox, and Protestant interpretations. A third candidate is the view found in *1 Enoch* and in Irenaeus of Lyons that the reference is to angels, a view some interpreters espouse today as well. One could argue on the basis of lexical evidence and discourse analysis that the first is the most plausible and the last is the least plausible, but there are insufficient grounds to evaluate any of these candidates with much confidence, because we know so little about the conceptual and linguistic background to Genesis 6. That does not, however, obscure our understanding of the discourse function of this verse, which is to exemplify the generalization stated in the next verse, namely 'that the wickedness of man was great in the earth'.

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[38] Alston, *Beyond Justification*, 173.

[39] For survey and analysis, see Kio, 'Revisiting "The Sons of God" in Genesis 6:1-4', *The Bible Translator*, 52/2 (2001), 234–39.

2.6. Conclusions

We have seen that the task of a naturalized epistemology is to identify the cognitively optimal processes for forming and evaluating beliefs, and that a naturalized hermeneutic should identify the cognitively optimal processes for forming and evaluating interpretations of communicative events. Reliabilism is compatible with these goals. The tenets of critical realism are compatible with a cognitive perspective but need to be fully grounded and expanded in the sociocognitive sciences. Embodied realism and reliabilism provide cognitive theories of concept formation and epistemic evaluation, respectively, that are compatible with critical realism and could be incorporated into a naturalized version of it.

Several points were made with respect to hermeneutics:

- First of all, *authorial meaning is a reality*; the author really did intend to communicate something to his audience, and he expected them to infer his informative intent, but much of that intent was operating within the author's unconscious mental processes. That is the realist assumption of a reconstructive hermeneutic.
- Since our lexemes, concepts, and beliefs are dependent on our human nature, sensory limitations, and social conditioning, they are not a direct reflection of reality. On the contrary, as Evans puts it, *language 'reflects our unique human construal of the world*: our world view as it appears to us through the lens of our embodiment'[40] [emphasis added].
- Since our cognitive processes are not objective but are determined by our own concepts and worldviews, which are derived from our own cultures and sub-cultures, it is unrealistic to try to recover the meanings of texts from other cultures by using a naïve or reader-oriented methodology. Since the meanings intended by the original author for his original audience were largely 'social meanings' dependent on concepts and worldviews that were particular to their culture and situation, *the interpreter cannot reliably recover the author's meanings without first having an adequate familiarity with the system of beliefs he assumes for his authorial audience*. This constitutes the conceptual, social, and cultural foundations of a sociocognitive hermeneutic.
- Since the lexical meanings of words are themselves socially shared public concepts, *the language of a cultural community embodies and reinforces the conceptual worldview of that community*.
- Since texts alone have no referential meaning, a text can have no correspondences with reality except as mediated by cognitive processes. *So the hermeneutical task cannot be achieved through text-centred methods but requires consideration of the participants involved in the original communication and the cognitive processes by which they*

[40] Evans and Green, *Cognitive Linguistics: An Introduction* (Edinburgh: Edinburgh University Press, 2006), 48.

produced and comprehended the text. This represents the cognitive nature of a sociocognitive hermeneutic.[41]

- Since the processes of comprehension involve assumptions and inferential processes largely beyond our awareness, *interpreters need to utilize procedures that allow them to consciously and critically reconstruct the communicative processes that would have occurred in the original communication.* This helps them to identify the original assumptions and to clearly distinguish them from their own assumptions, thereby making their investigations less intuitive, more objective, and open to scrutiny by others. This encapsulates the exegetical procedure of a sociocognitive hermeneutic.
- Finally, since our own reasoning processes are never completely objective and require confirmation from others, *our hermeneutical methods should be ones which others can duplicate to achieve similar results*. As Lakoff and Johnson put it, 'embodied scientific realism … requires, at the very least, broad convergent evidence and predictability.'[42] This defines what an evaluative procedure would be for hermeneutics, but its implementation requires development of a model that can be followed.

The discussion of reliabilism showed that while certainty of interpretation is not possible, one can make epistemic evaluations of candidate interpretations using a number of relevant desiderata, and identify the most plausible. These evaluations, however, depend quite critically on evidence and on proper cognitive functioning. When it comes to interpreting communicative events, I would submit that proper evaluations of candidate interpretations depend on an understanding of the natural cognitive functioning that is involved in communication. The remaining chapters will examine many aspects of this functioning and treat them as hermeneutical desiderata, in support of the thesis that a robust reconstructionist biblical hermeneutic can be developed by basing it on results of the sociocognitive sciences.

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[41] Polanyi drew a similar conclusion, albeit without the language of cognitive science. In Polanyi, 'The Body-Mind Relation', in William R. Coulson and Carl R. Rogers (eds.), *Man and the Science of Man* (Columbus, OH: Merrill, 1968), 85–102. He writes, 'Objectivisation, whether of another person's gestures or of his utterances, cancels out dwelling in them, destroys their meaning, and cuts off communication through them.'

[42] Lakoff and Johnson, *Philosophy in the Flesh*, 511. It might be noted that Paul the Apostle makes some similar statements:

> Now we see but a poor reflection as in a mirror; then we shall see face to face. Now I know in part; then I shall know fully, even as I am fully known. (1 Cor 13:12 NIV)
> Every matter must be established by the testimony of two or three witnesses. (2 Cor 13:1 NIV)

3. Hermeneutics and the Nature of Concepts

> If one wants to learn to understand a book a little at a time, then one must acquire the concepts which are necessary for a complete understanding of the book. — Chladenius, 1742 [1]

> Throughout most of our history, philosophy has seen itself as being independent of empirical investigation. It is that aspect of philosophy that is called into question by results in cognitive science. Through the study of the cognitive unconscious, cognitive science has given us a radically new view of how we conceptualize our experience and how we think. — Lakoff and Johnson, 1999[2]

3.1. An overview of concepts and their classifications in cognitive science

In cognitive science, **knowledge** itself is construed as the beliefs, concepts, and schemata that are stored in a person's memory.[3] By **belief** is meant a proposition or set of propositions qualified by an epistemic attitude that could range from certainty to denial. A concept generally includes multiple beliefs about a particular entity or category of entities. People typically form a concept on the basis of episodic experiences and stories that reveal features of some entity or category, as well as through information communicated to them by others. People use their conceptual knowledge to interpret their world and to store information about it in memory.

Hermeneutics is concerned, among other things, with how one can understand the concepts which an author evoked in his audience through his text, as well as the changes he sought to make in their concepts through the information he conveyed to them. When an interpreter reads that Paul proclaimed that οὗτός ἐστιν ὁ χριστὸς [ὁ] Ἰησοῦς ὃν ἐγὼ καταγγέλλω ὑμῖν 'This Jesus, whom I proclaim to you, is the Christ' (Acts 17:3), she wants to know the conceptual content of the CHRIST concept that Paul was ascribing to Jesus. Conceptual analysis is thus an important aspect of interpretation and is vital to biblical lexicography and biblical theology, both of which consist primarily of conceptual knowledge. It follows, then, that the theory of concepts should be a vital component of epistemology and hermeneutics, but this requires a

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[1] Chladenius, 'On the Concept of Interpretation', in Kurt Mueller-Vollmer (ed.), *The Hermeneutics Reader* (New York: Continuum, 1988 [1742]), 55–63, 58, §167. He went on to say, in §169, 'An interpretation is, then, nothing other than teaching someone the concepts which are necessary to learn to understand or to fully understand a speech or a written work.'

[2] Lakoff and Johnson, *Philosophy in the Flesh*, 14.

[3] See Barsalou et al., 'Embodiment in Religious Knowledge'. They write (p. 31, n. 2), 'Specifically, we do not draw the sharp distinction between knowledge and belief typically found in philosophy.'

naturalized approach. Cognitive psychology and neuroscience have discovered much about the formation, structure, and interdependence of mental concepts, and the results of this research can contribute significantly to a sociocognitive model of hermeneutics. I submit that a knowledge of these matters can provide interpreters with valuable conceptual tools for the interpretation of authors and can benefit theologians as well.

Frayer et al. define a **concept** as follows:

> we define a concept as ordered information about the properties of one or more things—objects, events, or processes—that enables any particular thing or class of things to be differentiated from and also related to other things or classes of things.[4]

According to Prinz, a complete theory of concepts needs to give an account of the following desiderata: The scope of their variety, their intentional content (i.e. their designata), their cognitive content (i.e. intensions), their acquisition, their use in categorization, their compositionality (i.e. their combinatoriality), and their public use in communication. To this we need to add an account of their epistemic status (Do they have truth properties?) and their metaphysical status (Are they abstract, nominal, mental?). Although all of these topics will be touched on to some extent, the focus is on those issues that relate to epistemology in ways relevant to hermeneutics, which is primarily their varieties and cognitive content.[5]

For preliminaries, it will be helpful to distinguish between **general concepts** such as MAN, which characterize non-specific members of a category, and **singular concepts**, which always characterize one particular entity, such as an object or event. Examples of singular concepts include GOD, SANHEDRIN, MARY MAGDALENE, POTIPHAR'S WIFE, and THE SUN. As Lawlor explains, 'Singular concepts are a fundamental cognitive tool. They are those concepts the possession and deployment of which make possible thinking about individuals—places, times, persons, and the like.'[6] In much of the literature the term *concept* is used to denote general concepts alone, while singular concepts are designated by terms like *individual concept, concepts of individuals, concepts of particulars, intuitions,*[7] *exemplars, instances, perceptual*

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[4] Frayer et al., *Conceptual Learning and Development: A Cognitive View* (New York: Academic Press, 1974), 4. They are actually talking about public concepts, but that does not affect their definition. On page 5 they list eight attributes of public concepts: 'learnability, usability, validity, generality, power, structure, instance perceptibility, and instance numerousness'. It seems evident that the first three attributes do not apply to any unlexicalized private concepts that lack a public counterpart.

[5] Laurence and Margolis give a somewhat different list of conceptual features that theories address: fast categorization, considered acts of categorization, semantic application, the licensing of inductive inference, analytic inference, concept acquisition, compositionality, and stability. See Laurence and Margolis, 'Concepts and Cognitive Science', in Eric Margolis and Stephen Laurence (eds.), *Concepts* (Cambridge, MA: MIT Press, 1999), 3–81, 72.

[6] Lawlor, *New Thoughts About Old Things: Cognitive Policies as the Ground of Singular Concepts* (Studies in Philosophy; New York: Garland, 2001), xi.

[7] Ockham and Kant use *intuition* in this way.

symbols,[8] or *mental representations of referents*.[9] This is confusing, however, because the terms *exemplar* and *instance* are commonly used in reference to entities rather than in reference to concepts of entities. Medieval philosophers often used the terms *common concept* versus *proper concept*, correlative to *common noun* and *proper noun*, but the same expressions are now used in their non-technical senses and are best avoided. For centuries philosophers have discussed the distinction under the rubric of *general* versus *singular*, and that pattern will be followed here.

A singular concept is associated with a particular entity in ways that enable **individuation** of that entity from others and **identification** of that entity over time, even when the entity undergoes changes.[10] These two functions distinguish singular concepts from general concepts. Take, for example, my cat Purrl. There are enough distinctive attributes in my PURRL concept that I can individuate Purrl from other cats. This ability to individuate entities facilitates the second function, namely identification of the same entity over repeated experiences of it. For example, whenever I see my cat, I recognize her as the same cat Purrl that I saw earlier, because she matches the features of my singular PURRL concept. When I have interesting new experiences of her, they lead to further enrichment of my PURRL concept. The general concept CAT, on the other hand, does not provide the attributes needed to indentify a particular cat. Nevertheless, I can use that general concept in a description such as MY CAT to **designate** the PURRL concept in people who know that I have one cat and she is named *Purrl*.

Barsalou and Yeh give the following definition for general concepts:

> We define a [general] concept as the accumulated information in memory abstracted for a category, where a category is a set of things in the world perceived as the same type of thing (for one of many possible reasons).[11]

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[8] For usage see Barsalou, 'Perceptual Symbol Systems', *Behavioral and Brain Sciences,* 22 (1999), 577–609. He defines it, however, in Barsalou, 'Flexibility, Structure, and Linguistic Vagary in Concepts: Manifestations of a Compositional System of Perceptual Symbols', in Alan F. Collins et al. (eds.), *Theories of Memory* (Hove, Sussex: Lawrence Erlbaum Associates, 1993), 29–101, 57., where he says, 'I will use the expression *perceptual symbol* to mean schematic perceptual components that designate referents in the environment and thought.' The term *perceptual symbol*, however, did not gain wide usage and is no longer used in Barsalou's writings.

[9] This latter term is used by Lambrecht in Lambrecht, *Information Structure*, 93. He says (p. 111) he prefers it to Chafe's use of *concept* since it excludes concepts of relations.

[10] For discussion see Marcus, *The Algebraic Mind* (Cambridge, MA, and London: MIT Press, 2001), chap. 5, esp. pp. 119–121. It seems to me that identification over time applies to concepts of objects more than to concepts of specific events, except for ongoing activities. Nevertheless, when one hears 'the resurrection of Christ' mentioned by different people at different times, we have no trouble recognizing these as references to the same event.

[11] Barsalou and Yeh, 'The Situated Nature of Concepts', *American Journal of Psychology,* 119 (2006), 349-384, 352.

General concepts serve several functions in cognition and communication. One communicative function is to enable a speaker to ascribe properties to a known entity for the sake of the addressee. This is illustrated in the statement of Paul above that 'Jesus … is the Christ' (Acts 17:3). Another function of concepts is to enable one to recognize the categories to which things belong. After talking some with Jesus at the well of Sychar, the Samaritan woman used her concept of PROPHET to categorize him: 'Sir, I perceive that you are a prophet' (John 4:19). After talking with him further, she began to consider a singular category, THE MESSIAH, and wondered, 'Can this be the Christ?' (John 4:29). Concepts also license inductive inferences (from typical features) and analytic inferences (from essential features). After the townspeople had heard Jesus, they concluded that he was the Messiah. Their Messiah concept included the feature of saving people from sin and evil, so they inferred that Jesus 'is indeed the Savior of the world' (John 4:42).

The intersection of denotation class and singularity is significant. The concept PRIME MINISTER OF CANADA denotes a singular relation that is filled at any point in time by a singular person. So the expression *present Prime Minister of Canada* is a definite description that denotes a single individual at the time of utterance. What is individuated and identified over time, however, is the role, which is distinct from PRIME MINISTER OF INDIA and which can be identified over time, regardless of which person is filling the role. The phrase *next Prime Minister of Canada* describes an unknown individual; it can be used to refer to that person within a future situation but it cannot be used to refer to a particular person in the present time (excluding from consideration someone recently elected to fill the role). In the Gospels, one needs to distinguish between the **singular role concept** MESSIAH/CHRIST and the **singular object concept** JESUS. Some passages of the Bible report sceptics evoking one without intending to implicate the other, whereas believers link them biconditionally.

A more modern distinction is that between **private concepts**, which are the personal conceptions held by individuals, and **public concepts**, which are the common denominators of conceptions shared by members of a society.[12] For example, the English lexeme *angel* evokes a concept ANGEL, which is a conceptualization of entities commonly categorized as 'angels'. (To what degree a conception is justified is another matter.) Private concepts exist in a person's **cognitive system**, also called his **mind**, as part of his own **conceptual system** or web of beliefs. For example, one person's private conception of ANGEL could be different from another person's private ANGEL concept, and both could include more information than the commonalities of their shared public ANGEL concept.

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[12] For discussion relevant to the notion of public and private concepts, see Sperber, *Explaining Culture: A Naturalistic Approach* (Oxford: Blackwell, 1996), chaps. 4–5. Sperber, arguing against Richard Dawkin's theory of memes, distinguishes between 'mental representations' and 'public representations', where a representation can be a concept or belief.

Public concepts exist in one's mind as that part of a concept that is assumed to be widely shared, or as a model of what is believed is widely shared (whether one agrees or not). For example, people in any society agree on some essential and identificatory features shared by things called 'dogs', and this constitutes their public concept of DOG. Public concepts are considered elements of **social cognition**, which is now a major area of research, showing that a person's conceptual system is constructed intersubjectively from the input of family, community, teachers, media and culture.[13] Language itself reinforces this role by **lexicalizing** public concepts as the meanings of lexemes. Lexicalization entails the linking of a concept with a **lexeme**, which can be an affix, word, proper name, idiomatic phrase, or fixed saying that is regularly used in a particular language. The close dependence of private conceptual systems on public ones, and the identification of public ones with culture, led Clifford Geertz to ask, 'Where does culture stop and the rest of the self begin?'[14]

But individual people do have their own individualized conceptions. Their **conceptions**[15] of DOG, for example, could vary considerably, depending on what they know about dogs and what their attitude towards them is. Veterinarians, for example, have DOG concepts that are so rich in knowledge and experiences they could fill a book or two. Although the word *dog* has a public concept as its common lexical meaning, whenever a person hears something described as a 'dog', it **evokes** their own private concept of DOG, meaning it is this concept that comes to mind. A Bible scholar, for example, might have a rich concept of the KINGDOM OF GOD that comes to mind when reading *Kingdom of God* in the Bible, while a lay person, if she hears the term *Kingdom of God*, might have little concept of its meaning. Nevertheless, she could build up her concept by studying the topic.

This distinction between private and public concepts warrants making a distinction between **individual epistemology** and **social epistemology**, as Goldman does.[16] Failure to do so could lead an interpreter to misinterpret someone by assuming a public concept where a private one was intended. For example, one can study the Intertestamental Jewish literature and the Gospels

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[13] See Fiske and Taylor, *Social Cognition: From Brains to Culture* (New York: McGraw-Hill, 2007). He describes how research into social cognition has flourished since Wittgenstein and includes study of the role of society in constructing and transmitting concepts, schemas, values, beliefs, and customs, in other words, worldview and culture.

[14] Geertz, *Available Light: Anthropological Reflections on Philosophical Topics* (Princeton: Princeton University Press, 2000), 204. Geertz was paraphrasing a similar question asked by Andy Clark in Clark, *Being There: Putting Brain, Body, and World Together Again* (Cambridge, MA: MIT Press, 1998), 215.: 'Where does mind stop and the rest of the world begin?'

[15] I am using *conception* for a person's particular version of a concept. We all have a concept of the moon, but our conceptions of it might vary somewhat, especially where cultures vary. See Millikan, 'Words, Concepts, and Entities: With Enemies Like these I Don't Need Friends', *Behavioral and Brain Sciences*, 21 (1998), 89–100.

[16] See for example Goldman, *Pathways to Knowledge*.

to get an idea of the public concept of the promised Messiah and find that there were two or three different public conceptions, each corresponding to a different school of thought, with its own conception of the kingdom that the Messiah would establish.[17] But when Jesus teaches about the Kingdom and by implication about the Messiah, it is clear that he is presenting his own KINGDOM OF GOD concept and that it differs from the various public versions that were circulating at the time. Max Turner emphasizes the important of this distinction and faults some lexicographers for trying to define lexical concepts in accord with the private concepts being communicated by biblical authors.[18]

Unless a person has grown up as a feral child or the like, his concepts will have been formed and lexicalized **intersubjectively** with his family and immediate community, in accord with their language, culture, and worldview. Because of polysemy, people have on the average several lexicalized concepts for each lexeme, and these concepts have contextualized variants. Nevertheless, people also have concepts whose lexical name is unknown to them or which have not been lexicalized in their language community. Most people, for example, have a well-formed concept of the depression in the centre of a saucer, and they know that its function is to hold a cup, but English lacks a lexical term for it. More importantly, people have many singular concepts for which they lack names. One might, for example, have a concept of a particular cat in the neighbourhood, or a particular tree, or a particular house, even though one lacks a lexical name for it. To evoke an **unlexicalized concept** one uses a **description**, such as 'the calico cat that lives in the house across the street'.

Logicians often call a lexicalized general concept a **predicate**, on the basis that general concepts are commonly used to predicate properties of objects. Logicians call these features, or at least the essential ones, the predicate's **intension**, while the set of entities that have these features are its **extension**. A general concept can therefore serve to categorize entities as members of the predicate's extension. For example, one might explain the meaning of 'Moses was a prophet' extensionally by saying that Moses is in the class of prophets and shares the features common to members of that class, or one might explain it intensionally by saying that Moses instantiates the concept of prophet by having certain specified properties. Empiricists tend to focus on the extension, while Platonists, rationalists, and logical positivists tend to focus on the intension. The view from cognitive science, however, is that percepts of particulars are acquired first and abstracted into singular concepts, then multiple similar concepts are

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[17] See the essays in Neusner et al. (eds.), *Judaisms and their Messiahs at the Turn of the Christian Era* (Cambridge Cambridge University Press 1987).

[18] See Turner, 'Modern Linguistics and the New Testament'. Reflecting his structuralist background, Turner sometimes calls lexical concepts 'meanings' and calls private concepts simply 'concepts'; other times he describes the lexical concepts as 'minimal concepts' and the private ones as the author's concepts.

abstracted into general concepts, usually under the influence of language and culture.[19] Most of this is extensional, but it is subjective as well. Then the general concept is used intensionally to classify new particulars as instances of particular general concepts, to make predictions about their features based on features of that concept, and to **denote** the instances of that general concept, all of which is intensional. So it seems that concepts are sometimes extensional in their development but intensional in their usage.

Both extension and intension are semantic notions. But concepts have pragmatic functions as well, which are their actual usages. In real life, people may use a general concept to denote instances within a domain of discourse determined within the speech event. More often, a speaker uses concepts to **refer** to entities, either by using a singular concept or by using a description that identifies the relevant referent to the addressee, who infers the intended **referent**. So references are made by speakers, not by words. As a form of shorthand, however, linguists say that a 'word refers' to something when what they mean is that 'people commonly use this word to refer' to something.

3.2. A neuroscientific sketch of concepts and lexemes

The neural nature of concepts

At various times people have thought that concepts were stored in the mind as word definitions, or as a list of features. Others have proposed that concepts are represented in the mind as logical formulas or strings of symbols, like a computer language. Research in neuroscience, however, has shown that concepts are encoded in neural arrays that stretch across the sensorimotor systems of the brain, and that it is the neural system in the brain that gives rise to the cognitive system we call the mind. Barsalou summarizes this research as follows:

> A very different view of the conceptual system has arisen in cognitive neuroscience. According to this view, categorical knowledge is grounded in the brain's modal systems, rather than being represented amodally in a modular semantic memory. For example, knowledge about dogs is represented in visual representations of how dogs look, in auditory representations of how dogs sound, and in motor representations of how to interact with dogs … Empirical evidence has been the driving force behind this view.[20]

Barsalou goes on by way of example to say that the DOG concept is stored in a network of neurons that maintains memory traces of various dogs in the sensorimotor areas of the brain. When a person reads or hears that someone 'has a dog', the person's brain simulates a singular concept of an individual dog by activating schematic memory traces in the neural array that

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[19] See Barsalou, 'Perceptual Symbol Systems'; Barsalou, 'Grounded Cognition'.

[20] Barsalou, 'Cognitive and Neural Contributions to Understanding the Conceptual System', *Current Directions in Psychological Science*, 17/2 (2008), 91–95, 92. See also Barsalou, 'Grounded Cognition'.

embodies the DOG concept. Thus one's mental concepts are thoroughly embodied in the neurons of the brain and are not at all like a dictionary definition or a logical formula.

Lexemes consist not only of words and morphemes but also of set phrases, such as *add fuel to the fire*, *dance the night away*, *blissfully ignorant*, and *straw man argument*. The conceptual meaning of **phrasal lexeme**s like these is fixed in the mental lexicon rather than produced on the fly by blending independent lexical concepts, as with non-lexical phrases like *blue car*. If a person hears the same metaphor or phrase used a few times to signify a particular concept, it becomes entrenched in the mental lexicon as a single lexical unit linked to that conceptual meaning. Research in neuroscience has shown that phrasal lexemes and conventional 'metaphors' activate their concepts directly without activating concepts related to their constituent words, which are now just their etymons. It was found, for example, that phrasal lexemes like *kick the bucket* did not activate the parts of the sensorimotor system related to motor actions like kicking or to conceptions of artefacts like buckets. Instead, its activation pattern was like that of the event concept DIE.[21] It was concluded that this so-called 'figurative' meaning is 'activated first, without needing to access the less salient literal meaning'.[22] In contrast to this, novel metaphors are processed in a different part of the brain, 'with the right hemisphere specifically more active for novel metaphor processing'.[23] These research findings are contrary to the traditional views regarding idioms and conventional metaphors, namely that readers first try to interpret them 'literally' (i.e. in accord with their etymons), and only afterwards do they recognize them as idioms or metaphors and try to interpret them figuratively. If this latter were true, then it would take people longer to process phrasal lexemes than it takes them to process normal phrases, since they would have to interpret them twice, but research has found that the reaction times for processing phrasal lexemes (idioms) is actually faster than literal phrases. This demonstrates that a phrasal lexeme is processed immediately as a single unit, without an attempt to interpret its constituent etymons.[24] This has obvious significance for the interpretation and translation of idioms and conventional 'metaphors' in the Bible, such as the many Hebrew phrasal lexemes derived from the etymon בֵּן, generally translated as *son*. If readers fail to recognize phrasal lexemes and interpret them as if they were normal phrases, then they will construct a meaning from the constituent etymons of the phrase and it will differ from its true lexical meaning.

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[21] See Aziz-Zadeh, 'Congruent Embodied Representations for Visually Presented Actions and Linguistic Phrases Describing Actions', *Current Biology*, 16 (2006), 1–6.

[22] Aziz-Zadeh and Damasio, 'Embodied Semantics for Actions: Findings from Functional Brain Imaging', *Journal of Physiology-Paris*, 102/1–3 (2008), 35–39.

[23] Aziz-Zadeh and Damasio, 'Embodied Semantics'.

[24] See Tabossi and Zardon, 'The Activation of Idiomatic Meaning', in Martin Everaert et al. (eds.), *Idioms: Structural and Psychological Perspectives* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1995), 273–282.

Although some phrasal lexemes are colourful, most are so common they go unnoticed. According to Igor Mel'čuk, 'in any language—i.e. in its lexicon—phrasemes outnumber words roughly ten to one'.[25] He further notes that since phrasal lexemes have their own fixed, 'conceptual representations', 'a good dictionary' of any language should include 'all the phrasemes' of that language.[26] One looks in vain, however, for a lexicon of biblical languages that includes many phrasal lexemes, so it is evident that considerable lexicographical research is needed along these lines. There is potential for such research to enrich rather significantly our knowledge of biblical lexemes and lexical concepts.

Contextualized variation of conceptual representations

It has been found that concepts are dynamic rather than fixed or static. One aspect of this dynamicity is that a person's concepts change over time, as do those of his society. The Bible itself reflects several cultures and subcultures, over several eras, so there is not one uniform conceptual system. In terms of Wittgenstein, more than one language game was being played. The public concepts an author evoked are those of his audience in the era during which he wrote, so to understand an author, one must understand the conceptual systems that were operating within the communities in which he participated and wrote. Where subcultures exist, these principles apply to each subculture. For example, in the Levant of the first-century Roman Empire, Koiné Greek served as a lingua franca, but the same words could evoke rather different concepts for pagan Greeks, Hellenistic Jews, and Christian Greeks. Examples include θεός 'god', ἅγιος 'holy', χριστός 'messiah', περιτομή 'circumcision', and ἀγάπη 'love'. The concepts evoked by these terms differed in content for each of these subcultures.

There is also variation among authors in their personal concepts and in their preferences for the terms they use to name them. One can see this in the Bible, where the different authors display preferences for different terms and seem to specialize on certain conceptions. For example, one will not understand the use of יְשׁוּעָה σωτηρία 'salvation' in particular passages of the Bible by assuming its meaning is univocal by all biblical authors in all passages, nor by assuming it has the same conceptual content that the word *salvation* commonly has for Christians today.

Another way in which concepts are dynamic is their production of **contextualized variants** to fit different contexts. As Barsalou puts it, 'the conceptual system … dynamically produces contextualized representations that support situated action in different situations'.[27] For example, the concept NOSE is not a static representation but includes contextual variants

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[25] Mel'čuk, 'Collocations and Lexical Functions', in Anthony Paul Cowie (ed.), *Phraseology: Theory, Analysis, and Applications* (Oxford and New York: Oxford University Press, 2001), 23–54, 24. For more on phrasal lexemes, see the essays in this volume.

[26] Mel'čuk, 'Phraseology', 24.

[27] Barsalou, 'Situated Conceptualization', in Henri Cohen and Claire Lefebvre (eds.), *Handbook of Categorization in Cognitive Science* (St. Louis: Elsevier, 2005), 619–650, 644.

derived from memory traces of various noses that have been perceived. Contextual variants of NOSE are then simulated as needed to fit contexts such as humans, cats, horses, elephants, airplanes, and Charles de Gaulle. That these are the same concept is shown by the fact that if a man was depicted as having a nose like that of a cat, it would still be recognizable as a nose and would have the same inferences, but it would be **miscontextualized**, i.e. out of place. Concepts can also vary contextually with location or behaviour by highlighting different features and inferences. For example, one's conceptual representation of a purring cat is different from that of a hissing cat, such that each variant evokes a different set of thoughts, feelings, and responses.[28] The features of GOD that are highlighted in a context of judgement are different from those highlighted in a context of blessing. These contextual variants are part of the lexical concept itself, so new research in this direction could enrich both lexicographical studies of biblical languages and conceptual analyses of biblical concepts.

Thus the interpretation of an author's intent in using a lexeme in an utterance involves consideration of three overlapping conceptual constructs: (1) 'public concept', meaning a conventional, socially shared conceptualization of some class, object, property, or event, which might also be lexicalized by commonly associating it with one or more lexemes, (2) 'private concept' or 'individualized concept', meaning a given individual's actual conceptualization of the same entity, and (3) 'contextualized concept', which is the conception that the author actually seeks to communicate to his addresses by using an expression in a particular utterance and context. Examples include (1) conceptions of the Messiah and his kingdom that were common among those with whom Jesus engaged, as reconstructed from the Gospels and other literature of the time; (2) Jesus' own concept of the Messiah and his kingdom, as reconstructed from the testimony of the Gospels; and (3) contextualized versions of that concept that Jesus presented in various speech events, as recorded in the Gospels. In other words, in a particular speech event, Jesus did not simply evoke the public concept unchallenged; he sought to change it, but at the same time he did not disclose the totality of his own concept in a single speech event, and indeed, this would not have been possible.

As an example of contextualization, the concept KING produces contextualized variants to fit a spectrum as from the 'king of Egypt' (Gen 40:1, i.e., Pharaoh) to the 'king of Sodom' (Gen 14:22, a village chief). The Hebrew concept behind *ebed* 'subordinate' contextualizes for Pharoah as his government ministers and for his ministers as their slaves, all in the same verse (Gen 9:20). Literal translations in English generally put *slave* everywhere, but the concept slave does not have the same range of contextual variation as the original concept. So the reader needs to know what contextual variants were available for the original concept.

Another aspect of this dynamicity and contextualization is that the conceptual representations produced for working memory (i.e. for a conscious thought) do not contain all

[28] See all of Barsalou, 'Situated Conceptualization'.

of the information stored in long-term memory for that concept but just the most relevant features. According to Prinz, working memory lacks capacity for all of the information pertaining to a concept in long-term memory, so only a portion can be represented at any one time as a **conceptual representation** in one's thoughts.[29] Usually there is just a small portion of a concept's content that is relevant to the context anyway, and that is the portion that is retrieved. So the mind both contextualizes and reduces the concept in accord with what is relevant to its context. This has significance for the exegesis of particular passages, and it supports Barr's criticism of what he called 'illegitimate totality transfer'.[30]

The interconnectedness of concepts and their dynamic features of contextualization confirm the claims of Wittgenstein that words are used dynamically with 'a complicated network of similarities overlapping and criss-crossing',[31] which he famously characterized as 'family resemblances'.[32]

Lexemes and their relationship to concepts

It has been common for some philosophers, lexicographers, and interpreters to identify words with concepts, to the extent of claiming that one cannot have thoughts or concepts without words.[33] This view has misled some interpreters into studying biblical words instead of biblical concepts and treating conceptually synonymous lexemes as if they had different conceptual meanings. It has misled structuralists into locating meaning in the relations of lexemes, and it has misled interpreters into locating meaning in the words of the text. One of the results of neuroscientific research, however, is that lexemes are completely separate from concepts in the brain. According to Barsalou, 'a single, multimodal representation system in the brain supports diverse forms of simulation across different cognitive processes, including high-level perception, implicit memory, working memory, long-term memory, and conceptual knowledge'.[34] Each of these, however, controls its use of the system from different parts of the

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[29] See Prinz, *Furnishing the Mind*, 148-150. There is some disparity among cognitive scientists on what term to use for a conceptual representation in working memory versus the corresponding conceptual network in long-term memory. Writers have invented different terms for one or the other, with Prinz using *proxytype* for both.

[30] Barr, *The Semantics of Biblical Language* (Oxford: Oxford University Press, 1961), 218. In Carson, *Exegetical Fallacies* (2nd edn.; Grand Rapids: Baker, 1996), 60. this is called 'unwarranted adoption of an expanded semantic field', meaning the interpreter claims that a single instance of a lexeme signifies several of its senses, although the context does not warrant this claim. In later chapters I will show that the brain does not do this when one of the senses is clearly relevant to the context.

[31] Wittgenstein, *Philosophical Investigations*, 27, §66.

[32] Wittgenstein, *Philosophical Investigations*, 27, §67.

[33] Schleiermacher, for example, said that 'no one can think without words'. Schleiermacher, *Hermeneutics and Criticism*, 7. It would be said today that people do not generally think with words at all but with concepts and frames.

[34] Barsalou, 'Grounded Cognition'.

brain, with the conceptual system using 'association areas in the temporal, parietal, and frontal lobes'.[35] Concepts of different kinds of entity are controlled in different parts of these areas and are even structured in different ways.[36] In other words, concepts are distributed over much of the brain, with structures and locations suitable to their types.

As for lexemes, according to Caramazza, they are 'organized into relatively autonomous neural subsystems in the left hemisphere, each dedicated to processing a different aspect of lexical knowledge', such that 'damage to the left frontal lobe is typically associated with disproportionate difficulty in processing verbs and closed-class words, while damage to the left temporal lobe is associated with disproportionate difficulty in producing and comprehending nouns'.[37] These findings substantiate the belief held by cognitive linguists, cognitive scientists, and philosophers of language that lexemes and concepts are different kinds of entity with an associative relationship between them. Further support for this conclusion comes from the observations that (1) tokens of the same lexeme can be used in different contexts to evoke a number of different concepts, a feature well known as polysemy, and (2) several different lexemes can evoke the same concept in appropriate contexts, a feature known as conceptual synonymy.[38] In other words, the conceptual meanings of words is not part of the mental lexicon but part of the conceptual system, and the semantic relations that were thought to exist among

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[35] Barsalou, 'Grounded Cognition'.

[36] See Caramazza and Mahon, 'The Organisation of Conceptual Knowledge in the Brain: The Future's Past and some Future Directions', *Cognitive Neuropsychology,* 23/1 (2006), 13–38; Martin and Chao, 'Semantic Memory and the Brain: Structure and Processes', *Current Opinion in Neurobiology,* 11 (2001), 194–201; Gallese and Lakoff, 'The Brain's Concepts: The Role of the Sensory-motor System in Conceptual Knowledge', *Cognitive Neuropsychology* 22/3–4 (2005), 455–479; Tyler et al., 'Conceptual Structure and the Structure of Concepts: A Distributed Account of Category-Specific Deficits', *Brain and Language,* 75 (2000), 195–231; Binder et al., 'Distinct Brain Systems for Processing Concrete and Abstract Concepts', *Journal of Cognitive Neuroscience,* 17 (2005), 905–917. Object concepts are located and represented distinctly from action concepts and quality concepts. As for object concepts, the primary distinctions are among animals, plants, artifacts, and people, each of which is anchored in a different part of the brain.

[37] Caramazza, 'Neural Basis of Lexicon', in Robert A. Wilson and Frank C. Keil (eds.), *The MIT Encyclopedia of Cognitive Sciences* (Cambridge, MA: MIT Press, 2001), 469–471. See also Caramazza and Shapiro, 'The Organization of Lexical Knowledge in the Brain: The Grammatical Dimension', in Michael S. Gazzaniga (ed.), *The Cognitive Neurosciences III* (3rd edn.; Cambridge, MA: MIT Press, 2004), 803–814. Caramazza notes that this distribution is confirmed by PET scans as well.

[38] This contrasts with the position of structural lexicologists such as Louw and Nida, who write that the 'first principle of semantic analysis of lexical items is that there are no synonyms' Louw and Nida (eds.), *Greek-English Lexicon of the New Testament based on Semantic Domains* (2nd edn., New York: United Bible Societies, 1989) 1:xvi. For support the authors cite differences in the connotations of different lexemes, but connotations are secondary to lexical meaning and stem from associations of the lexemes rather than from the concepts they evoke. It is not cognitive evidence or logical principles but their structuralist presuppositions which led them to take this position.

lexemes actually exist among concepts. There are lexical relations as well between the lexemes, but their roles are related to derivation from a common source, similarities in sound, intertextual associations, collocational patterns, and associations with particular dialects, jargon, register, or level of politeness. For example, the word *complaint* collocates with *express* and *lodge* but not with *give* and *issue*, in contrast to the patterns with *wish*, *request* and *order*. Lexical associations are usually called connotations. As an example, different words for excrement can have connotations that are medical, neutral, or rude, yet with no change in the concept signified or its denotation.

Hermeneutical implications

One implication for biblical hermeneutics is that concepts should be distinguished from the lexemes that evoke them, with semantic study focused on the concepts rather than the lexemes. Since conceptual synonyms evoke the very same concept (in appropriate contexts), a more cognitive approach to lexicology is to identify the set of conceptual synonyms that evoke each concept and then describe that concept as a single 'sense' shared by all of them, rather than treating each lexeme as if it had its own private set of semantic 'senses', each of which needs its own definition. The WordNet lexical database provides an example of this approach, by handling conceptual synonyms as single lexical units called **synsets**.[39] Biblical theologians do something similar when they consider the various ways a given author signifies a particular theological concept. A biblical lexicographer could identify a 'synset' of lexemes that evoke the same concept (in appropriate contexts), and then study all of those instances to reconstruct the intended concept. These could be incorporated into electronic knowledge databases like BibleWorks or like those used in artificial intelligence. *In summary,interpreters might find it more helpful to do conceptual analyses of key biblical concepts rather than word studies on key biblical terms.* At the same time, they do well to recognize that conceptually synonymous lexemes (ones sharing the same sense) are likely to have different associations (connotations), meaning they are linguistically asynonymous, and these connotations merit investigation as well.

Another implication for biblical scholars and lexicographers is that they should recognize that *most lexemes are phrasal rather than unitary, and oftentimes they link to the same concept as their lexical meaning*. Consider, for example, the pericope of the rich man in Mark 10:17–31. This pericope employs four different idioms to refer to the same destiny. They are used interchangeably in the text to evoke the same concept of eternal life in the Kingdom of God,

[39] Miller et al., *WordNet* (3.0 edn. (Princeton: Princeton University, 2006) <http://wordnet.princeton.edu/>.

with the lexical variation serving to vary the style and provide disambiguation (since the second and third are polysemous):[40]

(1) ζωὴν αἰώνιον κληρονομήσω ‘inherit eternal life’ (v. 17)
εἰς τὴν βασιλείαν τοῦ θεοῦ εἰσελεύσονται ‘enter the kingdom of God’ (vv. 23, 24, 25)
σωθῆναι ‘be saved, survive, live on’ (v. 26) [from Aramaic יְחֵא ‘to live’]
ἐν τῷ αἰῶνι τῷ ἐρχομένῳ ζωὴν αἰώνιον ‘receive eternal life in the age to come’ (v. 30)

Since all of these expressions are used repeatedly to evoke this same concept, both here and elsewhere, they appear to have been lexicalized with this same concept as their lexical meaning, differing only in mode of presentation. In that case they should be treated as conceptual synonyms. That has at least two implications for study of the concept. One is that research into the concept can be undertaken utilizing any passage where one of these terms is used to evoke it, thereby affording the scholar more textual data for conceptual analysis than would be available by word studies alone. The second is that the differing modes of presentation can provide etymological clues to the content of the concept, namely living forever, being saved from all death and deprivation, enjoying God and his people, etc.

As another example of a synset of phrasal lexemes, consider the Messianic titles below. All of them occur in Greek with the article of uniqueness, which makes them clearly Messianic in an early first-century Palestinian Jewish context.[41] Examples with a double underline were used in context to make a pragmatic (*de re*) reference to Jesus, so they are clearly evoking the MESSIAH concept or else the reference would not succeed. Examples with a single underline were used in context to make a semantic (*de dicto*) reference to the Messiah, whoever he might be. So again, the phrases are clearly evoking the MESSIAH concept, however it was construed. Those with no underline are making an ascription to Jesus, presumably one that is Messianic due to the article of uniqueness.

(2) ὁ χριστός ‘the Christ’ (Matt 1:17; Matt 2:4; 26:63; Luke 3:15)
ὁ υἱὸς τοῦ θεοῦ ‘the Son of God’ (Matt 16:16; 26:63; John 1:49; 5:25; 11:4; 11:27; Eph 4:13)

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[40] Regarding ambiguity, if the pericope at Mark 10:17–31 had begun with the man asking ‘What must I do to be saved?’ the cotext would have been inadequate to determine which concept was intended by this phrase. Once the concept had been evoked, however, with the phrase *inherit eternal life*, that concept remained residually activated, rendering it highly accessible, and so it would be the concept evoked by the term *be saved*. Actually, the term translated *be saved* would have been חֱיָא *ḥyâ* in the Aramaic of Jesus, broadly meaning ‘to live, survive’. So the verbal connection with eternal life would have been closer than it appears in the English. As for the Greek word used in Mark, σωθῆναι, it has the general meaning ‘to survive; to prosper’ and seems to be derived from ζωή ‘life’.

[41] The article of uniqueness can be used to refer to an entity which is one of a kind, such as the Messiah or the sun (from an earthly frame of reference) or to refer to someone who is the epitome of the quality indicated, such as one who is the holy king and saviour *par excellance*, or the most important descendant of David. But again, once an articular phrase is entrenched as a lexeme, it evokes its meaning directly.

ὁ υἱὸς Δαυίδ ‘the Son of David’ (Matt 12:23; Matt 21:9)
ὁ βασιλεὺς τοῦ Ἰσραήλ ‘the King of Israel’ (Mark 15:32; John 1:49; John 12:13);
ὁ βασιλεὺς ‘the King’ (Matt 25:34, 40; Luke 19:38)
ὁ βασιλεὺς τῶν Ἰουδαίων ‘the King of the Jews’ (Matt 2:2; Mark 15:2; Mark 15:9)
ὁ κύριος ‘the Lord’ (Matt 21:3; Luke 7:13; Acts 9:27; Jude 1:14)
πάντων κύριος ‘the Lord of all’ (Acts 10:36)
ὁ δίκαιος ‘the Righteous One’ (Acts 3:14; Acts 7:52; Acts 22:14)
ὁ ἅγιος ‘the Holy One’ (of God) (Mark 1:24; John 6:69; Acts 2:27; 3:14; Rev 3:7)
ὁ σωτὴρ τοῦ κόσμου ‘the Saviour of the world’ (John 4:42)
ὁ κύριος και σωτήρ ‘the Lord and Saviour’ (2 Pet 3:2)

It is clear from context that each of these idioms, as used in the contexts cited, was expected to evoke the MESSIAH concept for a first-century Jewish audience. In some cases the choice of phrase is explainable. The phrase *King of the Jews* is fitting for Gentiles, and the other terms might not have been known to them. The term *Righteous One* would have been **primed** by the semantic field of its cotext, in which people are addressed who have treated Jesus unjustly. In the other cases, however, one can substitute the terms with little discernable difference in meaning or style, and one can find parallel passages in which alternative terms are used. So given the fact that idioms are processed as a whole, without consideration of their constituent parts, the interpreter should probably assume there is no great significance in the choice of term to evoke this concept, unless there is compelling evidence to the contrary.

Since a single lexical concept is usually signified by a synset of multiple lexemes, including lexicalized phrases and conventional metaphors, lexicographers and translators do well to focus on the lexical concepts of synsets rather than treating different wordings as if they necessarily signified different concepts. Louw and Nida’s *Greek-English Lexicon*, for example, focuses on words to the exclusion of most phrasal lexemes, and although it discusses each sense of a word in conjunction with similar senses of other words, it assumes that meaning consists of lexical relations and hence that there must almost always be differences in meaning among lexemes. Coenen’s *Theologisches Begriffslexikon zum Neuen Testament* is focused on concepts, and it groups together Greek words that signify concepts which are similar or related in some way, but like Louw and Nida it does not work with synsets and does not give a unified description for a concept that is signified by multiple expressions.[42]

In some examples of ascriptive usage, the phrases are concatenated, using hendiadys, apposition, or duplication. This seems to emphasize the importance and gravity of the assertion:

[42] The *Begriffslexikon* (literally ‘concept lexicon’) was translated and edited by Colin Brown as *The New International Dictionary of New Testament Theology*. When this version was abridged by Verlyn Verbrugge, he abandoned the conceptual groupings and reorganized the material in traditional Greek alphabetic order.

σὺ εἶ ὁ χριστὸς ὁ υἱὸς τοῦ θεοῦ τοῦ ζῶντος. (Matt 16:16)
'You are the Christ, the Son of the living God.'
σὺ εἶ ὁ υἱὸς τοῦ θεοῦ, σὺ βασιλεὺς εἶ τοῦ Ἰσραήλ. (John 1:49; cf. Mark 15:32)
'Rabbi, you are the Son of God! You are the King of Israel!'
σὺ εἶ ὁ χριστὸς ὁ υἱὸς τοῦ θεοῦ ὁ εἰς τὸν κόσμον ἐρχόμενος (John 11:27)
'... you are the Christ, the Son of God, who was to come into the world.' (NIV)

It is clear that the biblical authors considered these terms to be conceptually synonymous and hence interchangeable. For example, Matthew's (16:16) report above of Peter's key confession at Caesarea gives the fullest version, reflecting perhaps Matthew's personal memory of the event: 'You are the Christ, the Son of the living God.' Four verses later Matthew reports Jesus' reference to the content of this confession, in which case it is paraphrased simply as being 'the Christ'. So he obviously considered the statements as equivalent. Luke, in his account of the confession, gives a shorter form: 'The Christ of God' (9:20), while Mark (8:29) has 'You are the Christ'. Unless one takes the highly sceptical view that Matthew and Luke had never heard of Peter's confession until they read about it in Mark, Luke knew the confession and thought the short form in which he reported it was adequate to convey the meaning, and similarly for Mark. John prefers to report a different event in which Peter confesses Jesus as ὁ ἅγιος τοῦ θεοῦ 'the Holy One of God' (John 6:69, GNT), which is another Messianic expression. So these variations in wording do not seem to represent a difference in conceptual meaning but evoke the same concept, THE MESSIAH. It seems unwarranted, therefore, to treat these variations as if the authors were presenting contrastive views of Jesus. To demonstrate a change of meaning, one would need to show that the expressions signified distinct concepts, such that Jews could have described Jesus as 'the Christ' while denying he can be called 'the Son of God', and vice versa, but there is no evidence for such a contrast in first-century Jewish usage.

The view from Aristotle to Grice had been that a hearer attempts a 'literal' interpretation of an idiom or metaphor, and when that fails, she then tries a figurative interpretation. This view has encouraged the literal translation of idioms, even in 'dynamic' translations of the Bible. But neuroscientific and psycholinguistic empirical research has falsified this belief, as mentioned earlier, by showing that *phrasal lexemes are recognized immediately as multi-word lexical units and their associated lexical concepts are activated directly and immediately, without touching the lexical concepts of their constituent etymons*. For that reason *well established multi-word expressions for biblical concepts, such as* THE MESSIAH, *should be considered co-conceptual lexemes rather than descriptive phrases with differing content*. It follows that *theological Bible dictionaries should be organized by concepts, not words, and should list the lexical designations for each concept, whether phrasal or unitary*.

So far we have noted that a variety of lexicalized phrases evoked the concepts of SALVATION and THE MESSIAH, but concepts can also be evoked by novel descriptive phrases, especially in poetry and other literary forms. In discussing the poetic structure of Philippians 2:6–11, Jack Sanders translates 7b as follows:

> Becoming in the likeness of men [ἀνθρώπων]
> And being found in fashion like a man [ἄνθρωπος][43]

He then goes on, justifiably in my opinion, to note the synonymous parallelism between *likeness* and *fashion*, and between *of men* and *like a man*. If we consider the semantics from the perspective of conceptual meaning, we can see that what is evoked is the concept of being human-like or anthropoid, and this concept is evoked by two different phrases: *in the likeness of men* and *in fashion like a man*.[44] In other words, both prepositional phrases evoke this same concept, with variation of wording for aesthetic effect. Don Carson, however, criticizing Sanders from a structuralist perspective, denied that the phrases are synonymous:

> Also the parallels Sanders draws are not exactly synonymous. Even "of men" / "like a man" are semantically asymmetrical regarding 'of' and 'like' and *quantificationally distinct in men/man* …[45]

While Carson is right about the words having different lexical meanings, it seems evident that the two expressions as a whole are poetical variants that evoke the same concept of being human. Even from a referential perspective, one can see that the author is not referring to one man in the first phrase and several men in the second phrase, because the usage is ascriptive (qualitative) rather than referential, and nothing quantitative is being said about Jesus. Perhaps Carson has now abandoned structuralist semantics and would not pen this criticism today, but such thinking is common among interpreters who do not consider the role of concepts in communicating meaning. *A failure to understand the role of concepts in lexical meaning leads to an undue focus on words at the expense of conceptual meaning in exegesis, translation, and lexicography.*

Another implication for lexicography, besides the need to focus on concepts rather than lexemes, is to recognize and list the contextual variants for each concept. The United Bible Societies has sought to capture the contextual variation in the *Semantic Dictionary of Biblical Hebrew*, which is a digital dictionary available on the Internet. At present it is organized by lexemes, in traditional alphabetical order, but it has links to 'entries with a similar meaning', as well as to other entries, and it distinguishes the contextual variants for each different sense.[46]

A further implication is that *since concepts are built up from experiences and from intersubjective comments and stories, biblical lexicographers should consider ways to provide their readers with equivalent cognitive experiences where possible*. Some do this by citing passages in the Bible and other literature, but not all of them provide the texts from those passages, just the references. An electronic dictionary could pop up the relevant texts. More to

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[43] Sanders, *The New Testament Christological Hymns* (Cambridge: Cambridge University Press, 1971), 9.

[44] Sanders, *The New Testament Christological Hymns*, 10.

[45] Carson, *Exegetical Fallacies*, 48.

[46] See United Bible Societies, 'Semantic Dictionary of Biblical Hebrew', (UBS, 2006).

the point, few dictionaries of biblical languages make a distinction between passages cited because they elucidate the meaning and passages cited simply because the term is used there. In contrast to this, when the author of Hebrews wanted to explain his concept of FAITH in chapter 11, he narrated a rich variety of historical examples that exemplified what he meant. The first example, in verse 3, is epistemic: 'By faith we understand that the universe was created by the word of God, so that what is seen was not made out of things that are visible.' The rest of the examples are relational, and the generalizations in verses 1 and 6 include both epistemic and relational propositions. Each example allows the reader to construct a different perceptual representation of the kind of faith exemplified in that instance, and from these varied representations the reader can build up a broader and richer FAITH concept.

3.3. Semantic frames

Frege's predicate calculus[47] facilitated developments in semantics that Frege never anticipated, most notably the development of semantic predicate-argument structures and frame semantics. Whereas Frege had regarded concepts as functions of a single argument with no specified semantic role,[48] this was expanded by Charles Fillmore and others to include multi-argument predicates with each argument having a specified semantic relation to the whole **predication**.49 These have now been applied to large corpora of English texts to create a comprehensive database of semantic frames used in English known as FrameNet.[50] To give a commonly cited example of this,[51] the concept of COMMERCIAL TRANSACTION may be viewed as having a semantic frame that includes semantic argument roles for Buyer, Seller, Goods, and Money. When used with the English verb *buy*, the buyer is expressed as the subject, which is suitable for a participant who is topical in the discourse context. This is seen below:

Buyer	Transaction	Goods	Seller	Money
John	bought	a book	from Jane	for a pound

[47] Frege, 'Begriffsschrift', in Michael Beaney (ed.), *The Frege Reader* (Oxford: Blackwell, 1997 [1879]), 47–78.

[48] Frege, 'Function and Concept', in Michael Beaney (ed.), *The Frege Reader* (Oxford: Blackwell, 1997 [1891]), 130–148.

[49] Fillmore, 'The Case for Case', in Emmon Bach and Robert Harms (eds.), *Universals in linguistic theory* (New York: Holt, Rinehart and Winston, 1968), 1–88; Fillmore, 'Frame Semantics and the Nature of Language', *Annals of the New York Academy of Sciences,* 280 (1976), 20–32.

[50] A detailed presentation of the application of frame semantics to FrameNet lexicography may be found in Ruppenhofer et al., *FrameNet II: Extended Theory and Practice* (Berkeley: University of California Press, 2006). For the database, see http://framenet.icsi.berkeley.edu.

[51] See Evans and Green, *Cognitive Linguistics*, 225–228. and the *locus classicus*, Fillmore, 'Frame Semantics', in The Linguistic Society of Korea (ed.), *Linguistics in the Morning Calm* (Seoul: Hanshin Publishing, 1982), 111–137.

Other English verbs use this same commercial-transaction frame but profile different participants in the subject and object positions:

Seller	Transaction	Goods	Buyer	Money
Jane	sold	a book	to John	for a pound

Buyer	Transaction	Seller	Money	Goods
John	paid	Jane	a pound	for a book

What is perhaps most important about semantic frames is that they seem to provide the templates on which semantic representations of propositions are constructed in the mind. In other words, they seem to correspond to neural structures that guide the formation of thoughts in working memory and knowledge in long-term memory. So they constitute the most basic unit of knowledge (for epistemology), and their recovery is the basic goal of interpretation (for hermeneutics).

The examples written here on paper are just convenient ways of representing these neural templates and the neural propositions they produce, but this does seem to be the closest we can get to representing the structure of a mental proposition. The features of a concept, as represented in the frame for MONARCH in Table 3-A, where shown as dyadic functional connections between MONARCH and other concepts, as in MONARCH *HAS* THRONE. But conceptual features can be polyadic propositions as well, like TYPICALLY MONARCH RECEIVE KINGSHIP at-time DEATH of PREVIOUS MONARCH. These polyadic propositions utilize the semantic frames of the concepts that define each relation, in this case RECEIVE. So the features of a concept can be much more informative and encyclopaedic than what was shown.

Hopefully it has been demonstrated that the semantic argument roles and their default values contribute significantly to the meaning of propositions and concepts and hence should be part of their interpretation.

Hermeneutical implications

The reconstruction of semantic representations is a crucial step in the comprehension process that will described in Chapter 6, and in the exegetical process that is built on that process. For now it might be noted that if the interpreter's goal includes the analysis of concepts and the reconstruction of propositions, then it will be helpful to reconstruct the semantic frames of lexical concepts and the full semantic representations of propositions, including implicit arguments and their default values.

As an example, consider the Hebrew word יְשׁוּעָה *yeshûʿâh* 'salvation, aid'. There are several Hebrew words for coming to someone's aid, but this one is preferred in contexts where God is the agent. In other words, in the semantic frame for the Hebrew concept of SALVATION, the default value for the Agent argument is GOD. So when the Psalmist writes 'Oh, that salvation for Israel would come out of Zion!' (Ps 14:7), he is hoping for intervention from God, not man. The word is of course a verbal noun. Like English, Hebrew has agentive verbal nouns

that are used to refer to agents of actions, such as מוֹשִׁיעַ ‘saviour’. But unlike English, generic Hebrew verbal nouns can be used to refer to an agent as well as to an action, agent, or whole event. So the Psalmist writes in 68:20:

> בָּרוּךְ אֲדֹנָי יוֹם יוֹם יַעֲמָס־לָנוּ הָאֵל יְשׁוּעָתֵנוּ סֶלָה
> Blessed be the Lord, who daily bears us up; God is our salvation. Selah

Here the Psalmist is describing God, not as the activity of saving but as the agent of saving activity, namely ‘our saviour’. This usage is common in the OT, with the result that used alone יְשׁוּעָה *yeshû‘â* can mean either ‘God as the agent of salvation’ or ‘the event of salvation by God’s agency’. But since God is a person rather than an event, the agentive meaning is required wherever God is described as יְשׁוּעָה *yeshû‘âh* ‘salvation’.

A phrase similar in meaning is עִמָּנוּ אֵל *‘immānû’ēl* ‘God is with us’. One finds this in Isaiah 8, where the prophet foretells a massive invasion by the Assyrians, but says in verse 10 ‘it will come to nothing; speak a word, but it will not stand, for God is with us’. In other words, God will be with his people as the agent of their salvation.

Now these phrases come together in the first chapter of Matthew. The angel of the Lord tells Joseph that his fiancée Mary ‘will bear a son, and you shall call his name Jesus, for he will save his people from their sins’ (Matt 1:21). The name of Jesus in Hebrew and Aramaic was (and still is) יֵשׁוּעַ *yeshûa‘*, which is the masculine form of *yeshû‘â* ‘divine salvation’. So basically it means he is the agent of God’s salvation. Matthew then compares this in 1:23 to the prophecy in Isaiah 7:14, where it says ‘the virgin shall conceive and bear a son, and shall call his name Immanuel’ (עִמָּנוּ אֵל). So both terms can mean the agent of God’s salvation of his people. According to Matthew 1:21 above, Jesus is that agent.

3.4. Conceptual structure

Representing conceptual structure as knowledge frames

At one time psychologists used a ‘feature-list’ model of concepts, in which the meaning of a concept consisted of a list of primitive features, or a ‘containment’ model, in which the concept was thought to contain other concepts. It is more common now, however, to view concepts as elements of a conceptual system that consists of networks of conceptual relations. Neuroscience supports this with compelling evidence that concepts are encoded in the brain as neural configurations within a vast **connectionist** neural network. One or more locations serve as access nodes and thereby distinguish the concept, which radiates out from that point along the neural connections. In other words, the conceptual content of a concept consists of the distribution of its relational connections with other concepts. For purposes of display, however, it is common to represent the content of conceptual relations in a tabular **frame**. I do this in the partial frame for BIRD in Figure 3-A below, which is based in part on Figure 3-B. Each row

represents a feature of BIRD, but it is neither a primitive feature nor a contained concept but **functional connection** to another concept:

BIRD	
is-a	ANIMAL
has image schema	
has coordinate	MAMMAL
has coordinate	FISH
has part	RIGHT WING
has part	LEFT WING
has part	BEAK
has part	LEG
quantity	TWO
has covering	FEATHERS
has colour	
has size	
eats as food	
has mode of travel	FLY
by means of locomotion	WINGS
has mode of travel	WALK
by means of locomotion	LEGS
has home	NEST
has prototype	SPARROW
has kind	PENGUIN
has kind	OSTRICH
has kind	CANARY
has instance	TWEETIE

Figure 3-A Partial conceptual frame for BIRD

The first column lists the relations, most of which are primitive relational concepts, while the second column lists other concepts in the network. One notable relation is the *is-a* relation, which shows that BIRD is a **subordinate concept** of ANIMAL, which is its **superordinate concept**. (There can be more than one.) This is represented with a special symbol as BIRD $\sqsubset$ ANIMAL, meaning BIRD is **subsumed** by ANIMAL. Subsumption is an inheritance relation, so BIRD automatically **inherits** all of the features of ANIMAL (as represented in the ANIMAL frame) except for ones that are specifically cancelled or overridden in the BIRD frame. In the frame above, the quantity of two legs overrides the default value for number of legs in the ANIMAL

concept, which is four. Another notable relation is the converse of the *is-a* relation, namely *has-kind* (or *has-subtype*) and with it *has-instance*. These are important because a concept is built from its instances and varieties, and these are used in contextualization as well.

Lexicologists and ontologists have been able to account for the features of concepts using a small number of recurring relational roles that connect it to other concepts, and to subsume all concepts under a small number of top-level concepts in chains of inheritance relationships.[52] The most basic roles and concepts are primitives, which are not composed of other features. These are the basic conceptual units from which the conceptual system is built. Anna Wierzbicka and her colleagues have identified about sixty or so primitives, which they call 'primes'.[53] This means that the rest of our concepts, about fifty to one hundred thousand, are composed of other concepts, both primitive and complex.

Propositional content

It might be noted that each row of the BIRD frame corresponds to a relation between concepts, and this forms a proposition, such as one that birds have a beak. Many of these propositions correspond to what Kant called 'analytic judgements', meaning analytic inferences.[54] Others correspond to what some people have called 'inductive inferences', such as birds having a nest. All of these relations are **inferential relations**, because they give rise to inferences. Being a canary entails having the features characteristic of an animal (e.g. blood), plus those of a bird (e.g. feathers), plus those of a finch (e.g. a short bill and small body). For that reason, this

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[52] See for example Vossen et al., *The EuroWordNet Base Concepts and Top Ontology* (2nd edn. (Amsterdam: Vrije Universiteit, 1998) <http://dare.ubvu.vu.nl/bitstream/1871/11130/1/D017.pdf>; Shapiro, 'Knowledge Representation', in Lynn Nadel (ed.), *Encyclopedia of Cognitive Science* (New York: Macmillan, 2003), Vol. 2: 671–680; Sowa, *Knowledge Representation: Logical, Philosphical, and Computational Foundations* (Pacific Grove, CA: Brooks / Cole, 2000), app. B; Helbig, *Knowledge Representation and the Semantics of Natural Language* (Cognitive Technologies; Berlin and New York: Springer, 2006), app. C. See Princeton University's WordNet at http://wordnet.princeton.edu for an online dictionary that exemplifies this approach in a limited way.

[53] For a list of 'semantic primes', see Goddard and Wierzbicka, 'Semantic Primes and Cultural Scripts in Language Learning and Intercultural Communication', in Gary Palmer and Farzad Sharifian (eds.), *Applied Cultural Linguistics: Implications for Second Language Learning and Intercultural Communication* (Amsterdam: John Benjamins, 2007), 105–124, 2. Examples include ABOVE, BELOW, FAR, NEAR. Although these concepts are primitive, they are not necessarily innate; they could have been constructed from the percepts of our human sensorimotor system, which quickly perceives that some things are within reach and some are not, etc. For an analysis of Jesus' teaching in terms of these primitives, see Wierzbicka, *What Did Jesus Mean? Explaining the Sermon on the Mount and the Parables in Simple and Universal Human Concepts* (Oxford and New York: Oxford University Press, 2001).

[54] See Kant, *Critique*, 51, A7. He defines it as the case where 'the predicate B belongs to the subject A as something that is (covertly) contained in this concept A'.

model of conceptual structure is sometimes called the **inferential model of concepts**, in contrast to the feature-list and containment models that were mentioned earlier.[55]

In any of these models, as Sellars noted, 'the conceptual meaning of a descriptive term is constituted by what can be inferred from it'.[56] For example, all of the inferences entailed by the statement 'X is a bird' belong to the feature set of BIRD. In the connectionist / inferential model, these features are embodied in its neural connections to other conceptual nodes, and in the features it inherits from those nodes, and so on. For example, BICYCLE has-part WHEEL, WHEEL has-part AXLE, AXLE has-part BEARING, so BICYCLE has-part BEARING. This results in a far larger set of features than that displayed in Figure 3-A above, and larger than what one finds in most dictionaries. It is encyclopaedic.

These functional connections are more evident if one displays them graphically as a semantic network, but the limitations of two-dimensional space constrain one to showing only a few features. A classic example is shown the figure below from Collins and Loftus in 1975:[57]

[55] For a description of containment versus inferential models of concepts, see Laurence and Margolis, 'Concepts', 5.

[56] Sellars, 'Is There a Synthetic A Priori?', *American Philosophers at Work: The Philosophic Scene in the United States* (New York: Criterion Books, 1956).

[57] This image was taken from http://www.sce.carleton.ca/courses/sysc-3101/a4.pdf and is based on Collins and Quillian, 'Retrieval Time from Semantic Memory', *Journal of Verbal Learning and Verbal Behavior*, 8 (1969), 240–247. and Collins and Loftus, 'Spreading-Activation Theory of Semantic Processing', *Psychological Review*, 82 /6 (1975), 407–428.

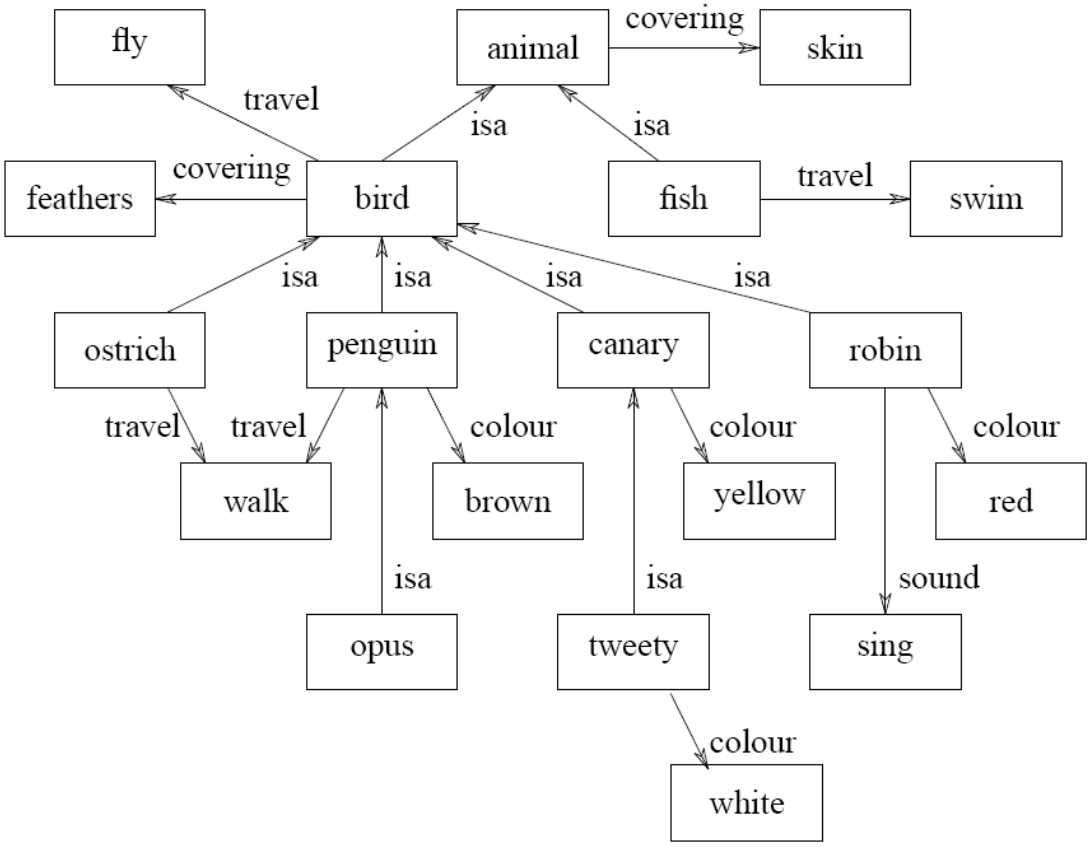

Figure 3-B Classic display of a semantic activation network

The node linked to the lexeme *bird*, and here labelled BIRD, serves as the access node of this concept. As activation spreads from the access node to other nodes, the content of the concept is activated. So the meaning of the lexeme *bird* depends crucially on the relations between the access node for BIRD and other nodes in the semantic network, all of which are access nodes for other concepts.[58] In the graph above, the singular concept TWEETIE is an instance of CANARY, and OPUS is an singular concept instantiating PENGUIN.

Typicality

The later Wittgenstein opposed the classical theory of rigid concepts that derived from the Aristotelian tradition and argued that entities are conceptualized as instances of a category if they share a minimal number of its characteristic features, enough to maintain a 'family resemblance'.[59] He used as an example the concept GAME to show that membership in a category cannot be reduced to necessary and sufficient conditions. The variability of language games demonstrates that our human concepts are not 'explained by facts of nature' and hence

[58] Semanticists, especially computational linguists, have produced numerous models of semantic networks that attempt to reproduce the observable patterns of natural language processes. For an overview see Sowa, 'Semantic Networks', <http://www.jfsowa.com/pubs/semnet.htm>. Semantic networks are discussed further in Part Two.

[59] Wittgenstein, *Philosophical Investigations*, §§1–88.

our concepts do not necessarily correspond to the facts of nature.[60] The concepts that constitute word meanings are therefore not transcultural universals that one can privately apprehend or the inevitable results of experiencing the real world; rather, they are social constructions grounded in their contexts of usage. They are like rules agreed upon by players of a game, in this case a language game.

Eleanor Rosch tested Wittgenstein's claim with a programme of psychological experimentation. The results were conclusive in showing that there was little psychological reality to the classical version of concepts.[61] She showed that concepts develop around a **prototype** rather than being defined by genera and differentiae. Concept development begins with the first exemplar, which becomes the initial prototype, then incorporates additional exemplars until a more abstract prototype is developed. This abstract prototype incorporates the features that are typical of the category.[62]

Rosch showed that entities are judged to be exemplars of a category if they have a certain number of features in common with its prototype without necessarily having all of the features of the prototype. Depending on which and how many characteristics an instance shares with the central schematic prototype, a person might consider the instance to be more typical or less typical of that category. In other words, a hairless, three-legged cat is still a cat, but it is not a typical cat.

According to Rosch, research into prototypes shows that, 'far from being abstractions of a few defining attributes, they seem to be rich, imagistic, sensory, full-bodied mental events that serve as reference points in all of the kinds of research effects mentioned above'.[63] The research parameters she mentioned, in which typicality effects were observed, included concept learning, speed of processing, expectation, association, inference, probability judgments, and judgment of similarity, as well as linguistic indicators of graded structure. So typicality is a significant feature of concepts.

Using a prototype model of concepts, I have made a conceptual analysis of MONARCH and presented it in the frame below. One of the modifications from traditional frames is my use of the word *typically* to indicate the graded structure of prototypical features. Since were are

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[60] See Wittgenstein, *Philosophical Investigations*, 195 §xii.

[61] See Rosch and Mervis, 'Family Resemblances: Studies in the Internal Structure of Categories', *Cognitive Psychology,* 7 (1975), 573–605; Rosch, 'Principles of Categorization', in Eleanor Rosch and B. B. Lloyd (eds.), *Cognition and Categorization* (Hillsdale, NJ: Erlbaum, 1978).

[62] This should be distinguished from 'exemplar theory', which was the view that a concept was based on a few exemplars. But unlike the role of 'focal instances' in Rosch and 'perceptual symbols' in Barsalou, exemplar theory assumed there was no abstraction of properties from the exemplars. For discussion and criticism see Smith and Medin, 'The Exemplar View', in Daniel J. Levitin (ed.), *Foundations of Cognitive Psychology* (Cambridge, MA: MIT Press, 2002), 277–292.

[63] Rosch, 'Reclaiming Concepts', *The Journal of Consciousness*, 6/11–12 (1999), 61–77, 65–66.

discussing concepts rather than words, we can consider *King* and *Queen* to represented variants of the same concept, contextualized for gender, and call the concept *Monarch*.

MONARCH

is-a RULER
typically is-a HUMAN
typically is-a MALE then is KING, or else is-a female then is-a QUEEN
typically is-a ADULT
is-a HEAD of a KINGDOM, which is-a STATE
has REIGN, which is-a GOVERNING AUTHORITY, over a KINGDOM, which is-a SOCIETY,
    which consists-of CITIZENS, SUBJECTS, and RESIDENT ALIENS, who is-a HUMAN
    typically has-authority to GRANT CITIZENSHIP to NON-CITIZENS in his KINGDOM
    typically has-authority to GRANT HONOURS and PRIVILEGES to HUMANs
    typically GRANTS HONOURS and PRIVILEGES to self
has REIGN, which is-a GOVERNING AUTHORITY, over a REALM, which is-a TERRITORY
has REIGN, which is-a GOVERNING AUTHORITY, over a GOVERNMENT
    has-authority to approve and dissolve government
    has-authority to appoint and dismiss head of government
    has-authority to approve or disapprove laws
typically RECEIVE KINGSHIP at time of DEATH, ABDICATION, or OVERTHROW
    of PREVIOUS MONARCH, who typically is-a FATHER to him, who is-a HUMAN
if ANCIENT typically RECEIVE KINGSHIP over KINGDOM from a HIGHER KING or from DEITY
if ANCIENT typically SERVES HIGHER KING or DEITY
if ANCIENT typically INTERCEDES with DEITY for-benefit-of KINGDOM

typically ends REIGN at time of DEATH, ABDICATION, or OVERTHROW of self
typically is SUCCEEDED by OFFSPRING, who is-a PRINCE or PRINCESS, who is-a HUMAN
typically LEADS or RALLIES the KINGDOM in time of WAR, which is-a CONFLICT
typically has-a THRONE, which is-a chair and is-a SYMBOL of KINGSHIP
typically has-a SCEPTRE, which is-a ROD and is-a SYMBOL of KINGSHIP
typically has-a CROWN, which is-a HAT and is-a SYMBOL of KINGSHIP
typically lives-in PALACE, which is-a DWELLING
typically is WEALTHY
typically LIVES a LAVISH LIFESTYLE
if MALE typically has-companion WIFE
    and if ancient perhaps has-companion many WIFE
if MALE and if ancient perhaps has-companion CONCUBINES
has-subtype ABSOLUTE KING
has-subtype VASSAL KING

has-subtype PARAMOUNT KING
has-instance King David son of Jesse
has-instance King Solomon son of David
has-instance King Nebuchadnezzar of Babylon
has-instance the Queen of Sheba,
has-instance the Pharaonic kings of Egypt, etc.[64]

Table 3-A Partial frame for the concept MONARCH

It might be noted that in some cultures of the far east, the concept for MONARCH includes attributes like the following:

is REMOTE and UNAPPROACHABLE
is mentioned only with HONORIFICS, which is-a LINGUISTIC FORM

In such cultures, ascribing their concept of MONARCH to Jesus (by calling him the 'king') can entail that he is remote, disinterested, and unapproachable.

A frame is a tabular way of representing conceptual structure but it obscures the fact that a concept's features consist of a network of relations with other concepts. The interconceptual nature of this structure can be represented more vividly as a network, as I have done in the figure below. Here the ovals represent general concepts, rectangles represent singular concepts, and arrows represent relations between them:

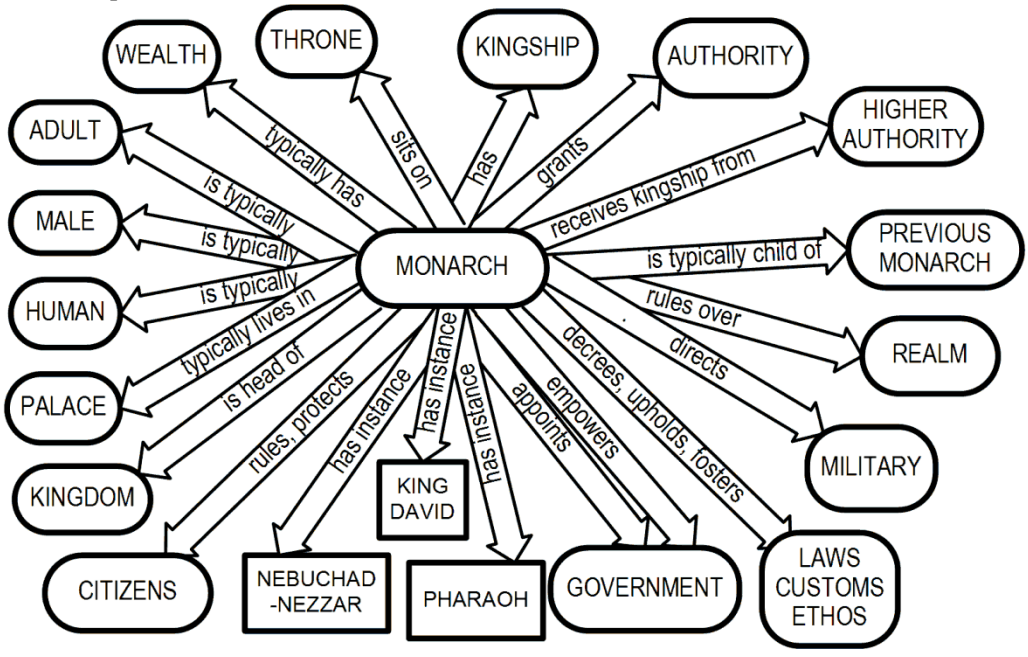

Figure 3-C Partial conceptual structure for the concept MONARCH

[64] The instances are concepts of individuals and denote those individuals. Otherwise their conceptual structure is much the same as that of concepts of categories.

While a frame like that for MONARCH is useful for listing relations with other concepts like KINGSHIP, THRONE, SUBJECTS, and REALM, it does not show how each of those concepts relates to the others, or how they all relate together in a complex cognitive structure. That is the subject of the next section (§3.5).

Epistemic properties

Like other propositions, the ones embedded in a concept can be subject to epistemic evaluation. The holder of a concept might have an epistemic attitude towards the whole concept or towards individual features. A lecturer will often pick out individual features of a concept to deny, strengthen, or replace, and these are epistemic activities. His goal in part is to change the epistemic status of his audience's concept of something. So concepts have epistemic properties, distributed over their features.

Concepts are not limited to entities which are demonstrably extant in the real world, nor are their epistemic status limited to evaluation with respect to the real world. Historians discuss Napoleon, Hammurabi, Odysseus, and Romulus and Remus, even though they existed in the past, not the present, and they cannot be proven to have existed at all. In a sense, these concepts have a 'Meinongian' feature rating the likelihood of their existence, ranging from zero to full confidence.[65] Nevertheless, historians can and do evaluate whether some conceptions of Napoleon are more accurate than others. Scientists construct concepts for entities whose existence remains uncertain. That was the case for atoms, whose existence remained doubtful until 1905, when Einstein came up with a compelling test for denotata of the ATOM concept. (Now, of course, the ATOM concept itself has completely changed.) Quine put supernatural beings in a similar category, as entities that (by definition) cannot be detected by naturalistic empirical methods.[66] The point is that one can have epistemically evaluable concepts of designata whose denotata remain outside the scope of direct observation or demonstration. Were this not the case, there would be no justification for reconstructive exegesis of the Bible, but only for a reader's response to its phenomenal qualities.

Epistemological points

- Conceptual and propositional knowledge is stored in the conceptual system. It is supported by episodic memories of experiences, both personal and reported.

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[65] For a discussion of Meinongian features and concepts, see Scott, 'Non-Referring Concepts', PhD thesis (Carleton University, 2003). Meinongian concepts are ones which have an attribute for existence that could have a negative value. The concept UNICORN has negative existence, and GHOST might as well.

[66] See Quine, 'Two Dogmas of Empiricism', *The Philosophical Review*, 60 (1951), 20–43. In Quine, 'Epistemology Naturalized', 71–73. Quine wrote that the only 'indubitable truths' were direct sense experiences expressible as singular statements, and that the issue of epistemic status applies only to propositions, not concepts. I am arguing that this is too simplistic and that a more nuanced view is required of the epistemic status of concepts.

- As a result, concepts can be rich in encyclopaedic content.
- Much of this content takes the form of relations with other concepts and can be represented in a frame.
- Many of the features of general concepts are typical rather than essential, characterizing a typical prototype.
- The subordinate singular and general concepts subsumed by a general concept satisfy its features to varying degrees, resulting in varying degrees of typicality.
- One of the ways in which concepts differ among cultures is in their choice of prototype, or the features they consider most typical.
- Concepts have epistemic properties and are subject to epistemic evaluation over their features.

Hermeneutical implications

To recover the knowledge that a biblical author is conveying, the interpreter needs to reconstruct (as well as possible) the relevant portions of the author's conceptual system, meaning his concepts and their interrelationships, as described above. There is questionable value in trying to identify the author's propositions apart from concepts or his concepts apart from their systematic relations. Reconstruction of a concept involves noting which features are included, how typical they are, and what prototype there might be for it. Sometimes there is an exemplar that is so typical it could form the basis for a prototype, but sometimes not. For example, is there a prototypical person for the concept of HEBREW PROPHET? Which features of HEBREW PROPHET are essential, which typical, and which occasional? Are there differing concepts of PROPHET based on differences in prototype? Is there a prototypical king, to which all others are compared? Or is the prototype an ideal king? Are there prototypes for SIN, RIGHTEOUSNESS, and HOLINESS? Or is SIN simply a shortfall in satisfying the ideal prototype of RIGHTEOUSNESS? It seems that much more research could be done in the analysis of biblical concepts with regard to their full sets of features, including those which are typical but not essential, since these describe the conceptual prototype and the degree to which instances typify that concept and fall within its category.

3.5. Schema theory

Schemata as units of knowledge and culture

In the mid-1970s researchers in several different fields became aware of knowledge structures variously called **knowledge frame**, **schema**,[67] **idealized cognitive model**[68] **cognitive model**,[69]

[67] Rumelhart, 'Schemata: The Building Blocks of Cognition', in Rand J. Spiro et al. (eds.), (Hillsdale, NJ: Erlbaum, 1980), 33–58.

domain,[70] or just **frame**.[71] Marvin Minsky gave the first formal definition, under the rubric of 'frame':

> A frame is a data-structure for representing a stereotyped situation, like being in a certain kind of living room, or going to a child's birthday party. Attached to each frame are several kinds of information … We can think of a frame as a network of nodes and relations. Several things make a schema significant.[72]

The significance of frames for conceptual meaning is well described by Fillmore, who defines a frame as 'any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits; when one of the things in such a structure is introduced into a text, or into a conversation, all of the others are automatically made available'.[73] The term *schema* was introduced by Kant and used extensively by Piaget. This might have motivated its use by cognitive anthropologists and many cognitive psychologists in place of the other terms. Some authors seem to use all of the terms.

One of the significant points about schemata is that the meaning of their constituent concepts is based in large part on their roles in the schema. The concept FUEL, for example, has little meaning outside of a role in relation to ENGINE or something that has an engine; without that function diesel is just a substance, not fuel. The DRIVER concept has little meaning outside of its a role in a CAR schema or other the like. These concepts go together as a structure and constitute the lexical meaning of the word *car*.

Evans and Green give as an example the concept of HYPOTENEUSE, which is meaningful only in relation to its role in the schema for RIGHT TRIANGLE; also KNUCKLE, which is meaningful only in the schema for HAND. The HAND concept is framed by ARM, while ARM in its turn is framed by BODY.[74] These are not simply dyadic relationships. BODY is a complex conceptual structure that subsumes many other concepts in the role of body parts and coverings,

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[68] Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind* (Chicago: University of Chicago Press, 1987).

[69] Evans, 'Lexical Concepts, Cognitive Models and Meaning-Construction', *Cognitive Linguistics*, 17/4 (2007), 491–534.

[70] See Taylor, *Linguistic Categorization: Prototypes in Linguistic Theory* (2nd edn.; Oxford: Oxford University Press, 1995), chap. 5; Fillmore, 'Frame Semantics', in Keith Brown (ed.), *Encyclopedia of Language and Linguistics* (2nd edn.; Boston: Elsevier, 2005), 613–620.

[71] Barsalou and Hale, 'Components of Conceptual Representation: From Feature Lists to Recursive Frames', in Iven Van Mechelen et al. (eds.), *Categories and Concepts: Theoretical Views and Inductive Data Analysis* (San Diego: Academic Press, 1993).

[72] Minsky, 'A Framework for Representing Knowledge', in Patrick Henry Winston (ed.), *The Psychology of Computer Vision* (New York: McGraw-Hill, 1975), 211–277, 211.

[73] Fillmore, 'Frame Semantics', §1, p. 111.

[74] Evans and Green, *Cognitive Linguistics*, 230–238.

and it is this whole configuration of related concepts that frames the concept ARM. Similarly RIGHT TRIANGLE frames HYPOTENEUSE and is essential to its meaning.[75]

A schema is obviously similar to a semantic frame. As far as their neural configurations is concerned, the structural differences are small, yet significant. A schema specifies all the features that give the concept its meaning, whereas a semantic frame lists a few open features that constitute a template for constructing a predication that uses the concept as a predicate, in preparation for expression as a sentence. The argument roles of semantic frames, then, could be viewed as a special sub-set of a concept's features that map onto syntactic structures, as seen in the FrameNet database mentioned earlier.

Schemata organize our knowledge and memories, both general and specific. Michael Arbib describes them as follows:

> To make sense of any given situation we call upon hundreds of schemas in our current schema assemblage. Our lifetime of experience might be encoded in a personal "encyclopedia" of hundreds of thousands of schemas.[76]

Not only do people use schemata to organize their knowledge and interpret their world, they use them to store memories and to reconstruct those memories. In other words, people do not store in memory every detail of an event; on the contrary, for a normal event they identify the schema that best fits it and then store specific details with the schema. They then reconstruct the memory by filling in the schema with the details.[77] This has a way, of course, of biasing their memories to fit their own conceptual system.

For some biblical examples, it might be noted that the biblical concepts of ALTAR, PRIEST, and TEMPLE receive most of their content from their roles within the schema of TEMPLE WORSHIP. The COVENANT schema gives meaning to the concepts of SIN and RIGHTEOUSNESS. Similar to the COVENANT schema is the PATRONAGE schema, which embodies the features of the patron-client relationship, which was important in the ancient world. It is evident that the concepts of PATRON (אב 'father') and CLIENT (בן 'son') are meaningful only with respect to their reciprocal roles in the PATRONAGE schema that frames them, just as the TEMPLE WORSHIP schema gives meaning to concepts like PRIEST. These concepts cannot be accurately understood or explained apart from their roles in schemata.

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[75] See Ungerer and Schmid, *An Introduction to Cognitive Linguistics* (Harlow, England: Pearson Education, 1996), chaps. 1, 5; Lakoff, 'Cognitive Models and Prototype Theory', in Eric Margolis and Stephen Laurence (eds.), *Concepts* (Cambridge, MA: MIT Press, 1999), 391–421; Croft and Cruse, *Cognitive Linguistics* (Cambridge: Cambridge University Press, 2004), chap. 2; Evans, 'Lexical Concepts'.

[76] Arbib, 'Towards a Neuroscience of the Person', in Robert John Russell et al. (eds.), *Neuroscience and the Person* (Berkeley: Center for Theology and the Natural Sciences, 2002), 77–100, 89.

[77] See Neath, *Human Memory: An Introduction to Research, Data, and Theory* (Pacific Grove, CA: Brooks / Cole, 1997), chap. 15.

A concept 'frame' can be viewed as representing that part of a schema which connects directly to the concept in question. The concept of MONARCH, depicted in Figure 3-A above, is best understood as part of a KINGDOM schema, as shown in my proposed analysis of KINGDOM in Figure 4-E below.

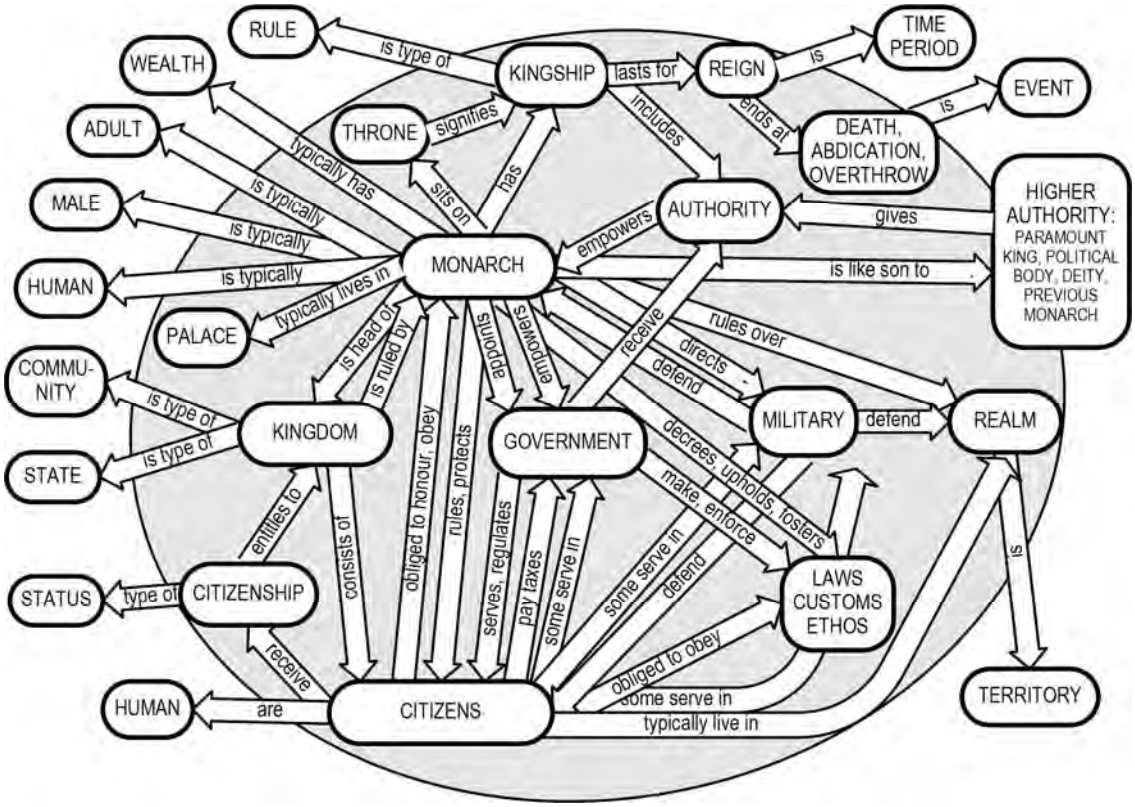

Figure 3-D A proposed schema for KINGDOM

The shaded area includes the schema. The concepts outside the schema are important features of various concepts, but they are not part of the schema itself. For simplicity all of the connective relations are represented as dyadic. To interpret the relations, read the **node** at the tail of an arrow as a subject, read the text in the arrow as a verb, and read the node at the arrow's point as a complement, as in MONARCH rules over REALM. Note that each of these relations constitutes a proposition, and that all of the **nodes** within the schema get their meaning in part from their relations within the schema itself. In the brain a schema is thought to be realized neurally as a connectionist network of considerable complexity, with strong synaptic coupling that gives the neural configuration a stable and cohesive structure.[78]

A schema is a complex concept, and like concepts, they are often blended 'metaphorically' to make new concepts. Blending the KINGDOM schema with aspects of God's plan for salvation

[78] Even this schema is highly simplified. Semantic frames have not been shown for the concepts. The labeled connections are actually predicates with arguments as well, but most are primitive concepts whose argument structure would add nothing but clutter to the diagram.

leads to the KINGDOM OF GOD schema. My proposed analysis for the resulting schema is shown below:

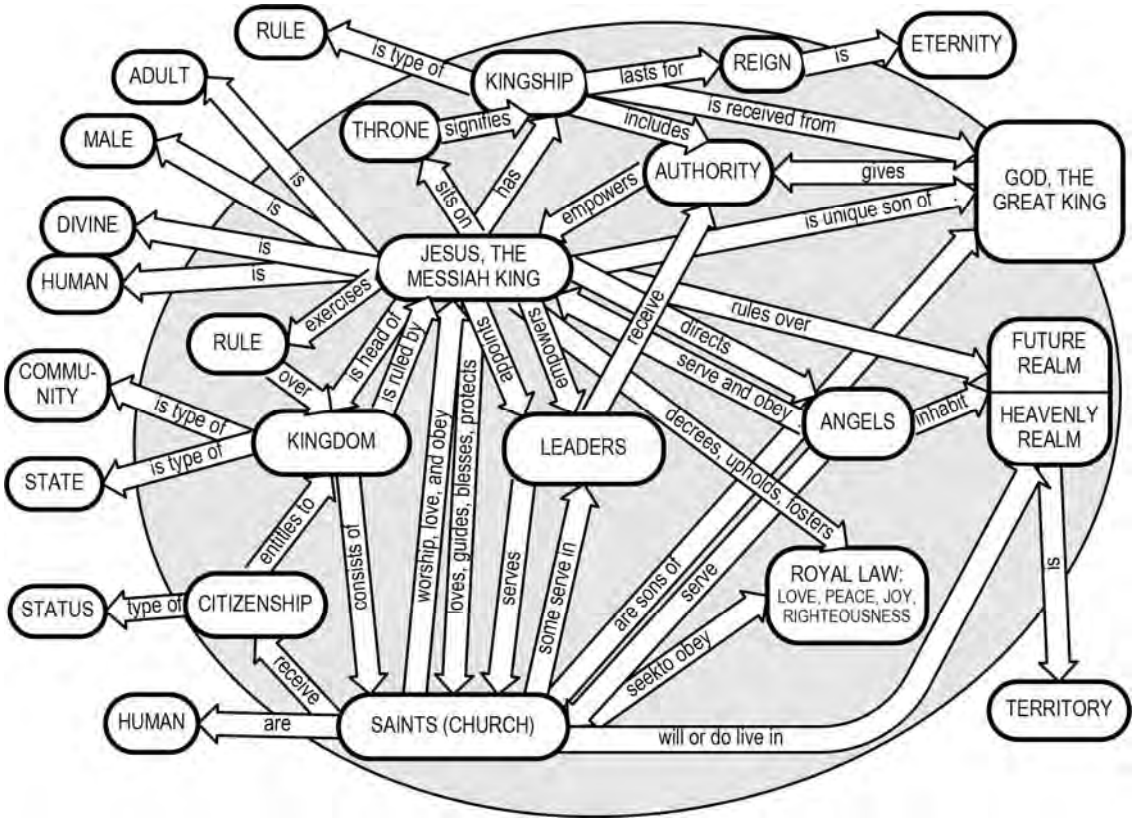

Figure 3-E Proposed schema for KINGDOM OF GOD

Again, the schema itself includes the concepts enclosed within the shaded area. These are ones which take their meaning in part form their participation in the schema. Concepts like HUMAN, MALE, and GOD do not take their meaning from this schema, but MESSIAH does. It is irrelevant to the meaning of the schema whether the constituent concepts are all lexicalized or not. This contrasts with structuralist semantics, in which lexical meaning is located in relations among lexemes alone, with a resultant meaning that is minimal and inadequate to account for usage.

The mind uses schemata to store memories of events as well, in episodic memory, and it uses schemata to recollect them. Fletcher et al. describe this as 'one of the most robust findings in the social cognitive literature'.[79] For example, if a person visits a restaurant and stores a memory of that visit, it will be stored in episodic memory using an event schema, namely the restaurant script, and perhaps a spatial schema for the layout of that particular restaurant, if it was familiar. Some of the unique details of the visit, such as trying a new dish, spilling food, or having a memorable waiter or dinner partner, are then stored with the schema, along with the date of the visit. When the memory of an event is **recollected** from episodic memory, the unique details stored there are added to the schema and the event is **reconstructed** in working

[79] Fletcher et al., *Blackwell Handbook of Social Psychology* (Oxford and Malden, MA: Blackwell, 2001), 73.

memory. Thus memories of events are stored in schematic form, using existing schemata and selected details, and reconstructed at recall. If there is no schema matching the event, then it can be stored in schematic form as the beginning of a new schema.

There are schemata for patterns of activity as well, in other words, for procedures and customs. These are often called **scripts**, because they have a temporal configuration in addition to a spatial one. The first descriptions of scripts were the restaurant script and the airplane script.[80] The restaurant script describes the typical sequence of activities and arrangements of objects that one experiences in a visit to a Western restaurant. For example, one enters a restaurant through a door, sits (or is seated) in a chair at a table, reads a menu, orders food from a waiter, receives food from the waiter, eats food with expectations of enjoying it, receives a bill from the waiter, pays the cashier (directly or through the waiter), and leaves. If a speaker mentions nothing more than having gone to a restaurant, all of these objects and activities are activated in the mind of the hearer and can be assumed as given in the subsequent discourse. The airplane script does the same for a typical flight on a commercial airliner.

Cognitive anthropologists discovered that the schemata embedded in a culture's public conceptual system constitute the basic units of that culture. The differences in custom and worldview among cultures could then be understood as differences in their schemata.[81] As Mark Turner notes:

> Since basic mental operations operate over cultural frames of knowledge, and those frames can vary dramatically from culture to culture, and purposes and conditions can also vary dramatically, different cultures can and do look strikingly different.[82]

A culture, for example, might have different schemata (or scripts) for FRIENDSHIP, COURTSHIP, and COMMERCIAL TRANSACTION. It is the differing structures of these schemata that embody cultural distinctives and yield culturally distinctive concepts and customs. The MARRIAGE schema, for example, can differ significantly among cultures, with the result that the WIFE and HUSBAND concepts differ as well. Larger schemata, sometimes called 'models', embody the complex of customs (schemata) related to home life and agriculture.

It should be evident that biblical concepts are to be explained adequately in a Bible dictionary or encyclopaedia, then they should be explained with respect to their roles in specific schemata. An entry would explain the concepts in a schema, how they function together, and how they interrelate. In the course of doing so it would cite the lexemes that link to the

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[80] The original descriptions are in Schank and Abelson, *Scripts, Plans, Goals, and Understanding: An Inquiry into Human Knowledge Structures* (Hillsdale, NJ: Erlbaum 1977).

[81] The seminal works on this cultural model are Lakoff, *Women, Fire, and Dangerous Things*. and Holland and Quinn (eds.), *Cultural Models in Language and Thought* (Cambridge / New York: Cambridge University Press, 1987). For a summary of the topic see D'Andrade, *The Development of Cognitive Anthropology* (Cambridge: Cambridge University Press, 1995), chap. 7.

[82] Turner, *Cognitive Dimensions of Social Science* (Oxford: Oxford University Press, 2001), 13.

concepts or to the schema as a whole. For example, the Kingdom of God schema includes a concept of its members, and discussion of that could cite the terms used in the Bible to refer to the them. By my reckoning these include the following expressions:

Collective expressions	
God's people [as a group]	Rom 9:25–26; 2 Cor 6:16; 1 Peter 2:9–10
the house[hold] of God	1 Tim 3:15; Heb 3:6; 1 Peter 4:17
[Christ's] own people	Titus 2:14
the household of faith	Gal 6:10
the body of Christ	1 Cor 12:27; Eph 3:6; 4:12; 5:30
the flock of God	1 Peter 5:2
the flock	Matt 26:31; John 10:16; Acts 20:28–29; 1 Peter 5:2–3
the Israel of God	Gal 6:16 (cf James 1:1)
the temple of God	1 Cor 3:17; 2 Cor 6:16; Rev 3:12
the church of God	Acts 20:28; 1 Cor 1:2; 10:32; 11:22; 15:9; Gal 1:13; 1 Tim 3:5, 15
the church	Acts 5:11; 8:3; 12:1, 5; 1 Cor 12:28; Eph 1:22; 3:10, 21; 5:23–27; Phil 3:6; Col 1:18, 24
the assembly of the firstborn who are enrolled in heaven	Heb 12:23
Plural expressions	
God's elect	Matt 24:31; Mark 13:27; Luke 18:7; Rom 8:33; Tit 1:1
God's chosen ones	Col 3:12
the elect	Matt 24:22, 24; Mark 13:20, 22; 2 Tim 2:10; 1 Pet 1:1
the children of God	Rom 8:19, 21
the children of light	Luke 16:8; Eph 5:8; 1 Thess 5:5
those who love God	James 1:12; Rom 8:28
those who obey [God]	Acts 5:32
the brothers	Acts 15:22, *passim*; 1 Cor 6:5; 1 Pet 2:17
the disciples (of the Lord)	Acts 6:1, 2, 7; Acts 9:1; 11:26, 29; 13:52
the righteous [ones]	Matt 13:43, 49; Matt 25:37, 46
the saints	Rom 8:27; Eph 2:19; *passim*
(all) those who are sanctified	Acts 20:32; Heb 2:11; Heb10:14
those who are called	1 Cor 1:24; Rom 8:28; Jude 1:1
those who are being saved	1 Cor 1:18; 2 Cor 2:15
we who have fled for refuge	Heb 6:18
all the churches of Christ	Rom 16:16
(all) who are in Christ (Jesus)	Rom 8:1; 1 Peter 5:14
all who love our Lord Jesus Christ	Eph 6:24
all who call on [Jesus Christ]	Acts 9:14; 1 Cor 1:2; cf 2 Tim 2:22
those who are eagerly waiting for [Christ]	Heb 9:28
[everyone] who has faith in Jesus	Rom 3:26
those who have obtained a faith of equal standing with ours	2 Peter 1:1
those who are considered worthy to attain to that age and to the resurrection from the dead	Luke 20:35

Table 3-B Biblical terms for citizens of God's Kingdom, both plural and collective

Each of these expressions uses a different mode of presentation to evoke the concept of God's eternal people. Each does so by highlighting different features of the same concept. Mode of expression makes little or no difference, however, for lexicalized expressions, because once a phrase has been used a few times for the same concept, it becomes entrenched in people's minds as a phrasal lexeme and activates its target concept directly without activating concepts linked to its constituent etymons.

Lexical meaning

The lexical meanings of most lexemes can be viewed as public schemata or frames for constituents of schemata, whether there are lexical names for all the constituents or not. John Taylor describes this as normative:

> In general, we can only understand the meaning of a linguistic form in the context of other cognitive structures; whether these other cognitive structures happen to be lexicalised in the language is in principle irrelevant.[83]

It can be seen that schemata are configurations of concepts, not lexemes. People can recognize an image of an engine or car from its configuration of constituent parts, even if they do not know the names of those parts.

This cognitive understanding of lexical meaning bears little resemblance to the atomistic concepts of conceptual realism and phenomenology, the genera and differentiae of Porphyry, the sense impressions of empiricism, the lexical relations of structuralism, or the minimal distinctive features of componential analysis. Its distance from these approaches is even more evident when one considers conceptual characteristics such as prototypes, typicality, fuzzy extensions, and contextual variants.

Variation in private concepts vary among individuals

The work on schemata by social psychologists and cognitive anthropologists might lead one to think that people who share the same culture or subculture and use the same language must have identical private concepts, but research has demonstrated a surprising variability of concepts, at least in large, modern societies. After citing empirical research on the issue, Barsalou draws the following conclusion:

> Categories are not represented by invariant concepts. Different individuals do not represent a category in the same way, and a given individual does not represent a category in the same way across contexts. Instead there is tremendous variability in the concepts that represent a category.[84]

Cognitive analyses of conversation have shown that conceptual differences between interlocutors using the same language can lead to extensive miscommunication. Studies cited

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[83] Taylor, *Categorization*, 84.

[84] Barsalou, 'Intraconcept Similarity and its Implications for Interconcept Similarity', in Stella Vosniadou and Andrew Ortony (eds.), *Similarity and Analogical Reasoning* (Cambridge and New York: Cambridge University Press, 1989), 76–121, 114.

by Schober led him to conclude that 'what is clear is that linguistic alignment does not guarantee conceptual alignment and that undetected misalignments can have serious consequences'.[85]

The misalignment of concepts is even more pronounced when the communication is cross-cultural, cross-lingual, and transhistorical.[86] One finds abundant evidence for this in the experiences of people who have lived for years in a different culture and even learn the language yet still misunderstand the concepts and implications intended by the members of that culture. As a result, their cross-cultural speech acts often 'misfire', as Austin terms it.[87]

Concepts not only differ among cultures and subcultures, they change over time within the same culture. One need only consider how the concept WOMAN has changed in the West over the last two hundred years, and how the concept ATOM has grown more complex. The Bible displays a gradual enrichment of many concepts among the Hebrews, such that Paul's concept of GOD reveals more complexity than does Abraham's in Genesis.

One of the functions of communication is to convey information, and *much of the information that is communicated consists of differences in the private concepts of the interlocutors*. For example, if John and Jane converse about dogs, each will express information the other does not know, such as stories about exemplars, and in this way they enrich each other's DOG concept. The lexeme *dog* serves to identify a public DOG concept, but what John and Jane share with each other is additional information from their own private DOG concepts. Similarly when a Bible scholar teaches lay people about the Kingdom of God, he will presuppose information that is part of their shared KINGDOM OF GOD concept, and will express new information that is part of his concept but not theirs. This will have two cognitive effects on them. One is to enrich their model of his concept of the Kingdom. If they believe his new information, then the second effect is enrichment of their own concept of the Kingdom.

To take a biblical example, when Paul writes to the Romans about justification, he assumes they have a JUSTIFICATION concept, but he seeks to realign it more closely with his own concept, which he is confident is correct and revealed by God. In fact much of the content of Paul's communications consist in changes that he seeks to make in his audience's concepts and assumptions. To understand Paul, then, it is not sufficient to know something about a public JUSTIFICATION concept, which Paul may have shared to some extent with his Christian

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[85] Schober, 'Conceptual Alignment in Conversation', in Bertram F. Malle and Sara D. Hodges (eds.), *Other Minds: How Humans Bridge the Divide Between Self and Others* (New York: Guilford Press, 2005), 239–252, 249.

[86] For discussion of issues in cross-cultural communication, see Hesselgrave, *Communicating Christ Cross-Culturally* (2nd edn.; Grand Rapids: Zondervan, 1991), chap. 11. Hesselgrave discusses misunderstandings that result from differences in culture and worldview but does not discuss differences in concepts and conceptual systems.

[87] Austin, *How to Do Things with Words* (2nd edn.; Oxford: Oxford University Press, 1975), 16.

addressees; one needs to understand how Paul's individualized JUSTIFICATION concept differed from theirs. If one did a word study of Greek literature to discover a public concept associated with the word *justification*, that concept would not be identical with the conception of JUSTIFICATION that Paul is seeking to impart.

Activation of schemata

The connections among concepts in a schema are presumed to be strongly entrenched and subject to coactivation, that is to say, activating one concept will activate the others to some extent, making them 'given' within the discourse and highly accessible to thought processes.[88] Schank and Abelson demonstrated this in their discussion of the restaurant **script**,[89] in which the mere mention of going to a restaurant activated concepts of objects and activities customarily involved in dining out.[90] Since these concepts have been activated by the script, one can refer to their designata with definite expressions at first mention, such as *the waiter*, *the table*, *the menu*, *the food*, etc. In other words, if one of these concepts is evoked or even activated, then it primes all of the concepts and beliefs that belong to the schema, rendering them highly accessible. The speaker can now presuppose them in the subsequent discourse as 'given information'. On the other hand, if a schema and its integral concepts are not often evoked in a society, then their connections will be weak for lack of frequency of use, thereby lowering the accessibility of the concepts and assumptions.[91]

Consider, for example, elements that must be part of the TEMPLE frame, as indicated in the verses below:

> After three days they found him in the temple, sitting among the teachers, listening to them and asking them questions. (Luke 2:46)
>
> And as they were speaking to the people, the priests and the captain of the temple and the Sadducees came upon them, (Acts 4:1)

By evoking the TEMPLE concept, the author has evoked a schema that included, for first-century readers, officiating priests, a captain of the temple guard, and teachers giving lessons in the

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[88] Mandler, *Cognitive Psychology: An Essay in Cognitive Science* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1985), 37. Entrenched relations are embodied as strong synaptic connections between the neurons or neuronal assemblies that encode the concepts.

[89] A script is an activity frame in which events are temporally ordered. This includes the sequence of events typical of a visit to a restaurant as well as the objects found there. In the Jewish culture reflected in the Gospels, there would have been a for a SYNAGOGUE MEETING script and for a PASSOVER script.

[90] Schank and Abelson, *Scripts*.

[91] Higgins cites chronicity, frequency, and recency as the chief (but not sole) factors in accessibility. Beyond that is applicability, which is the result of convergences of spreading activation. See Higgins, 'Knowledge Activation: Accessibility, Applicability, and Salience', in E. Tory Higgins and A. W. Kruglanski (eds.), *Social Psychology: Handbook of Basic Principles* (New York: Guilford Press, 1996), 133–168.

portico of the courtyard.[92] So when reference is made to these people, the definite article is used, even though they had not been explicitly mentioned prior to this in the episode. When Jesus said to the leper, '… go, show yourself to the priest and offer the gift that Moses commanded' (Matt 8:4), he did not need to tell the man explicitly where to go, because offerings and officiating priests were part of the Hebrew TEMPLE schema, and part of the TEMPLE concept is that it is located in Jerusalem. Since the leper was in Galilee, a journey to Jerusalem would have been a major undertaking, especially when he is prohibited from coming near to other people.

This highlights the importance of schemata for reference: if a schema has been activated, then it defines a focus situation that constrains the universe of discourse for references. In other words, there were off-duty priests living throughout Judea and Galilee, but the mention of an offering activated the TEMPLE schema and constrained the possible referents of *priest* to one who are officiating in the Jerusalem temple when the leper arrives there.

The full activation of one concept inhibits competing concepts, so the evocation of an officiating priest will inhibit the leper's consideration of off-duty priests, rendering the statement unambiguous. Mandler describes the process as follows:

> Activation of parts of a schema implies the activation of the whole, distinct from other structures and other schemas … At the same time, the activation of a schema also involves the inhibition of other competing schemas.[93]

There were not only a few off-duty Hebrew priests in Galilee, there were pagan priests serving in pagan temples. But both categories of priest were inhibited by activation of the JERUSALEM TEMPLE schema, with the consequence that pagan priests would not even have come to mind as a possible referent of Jesus' remark. An interpreter can therefore argue with a cognitive rationale that the intended referent is a Hebrew priest on duty in the temple in Jerusalem.

Since evoking one concept in a schema activates the rest of the schema to some extent, it is not uncommon for speakers to evoke a concept by using a lexeme that is linked to a different concept in the same schema. This is the practice called **metonymy**. If this happens several times, however, the lexeme becomes linked to the other concept as well, becoming more polysemous in the process. In the kingdom schema in Figure 3-C, for example, the concepts PALACE and THRONE are linked to MONARCH, and THRONE is also linked to KINGSHIP. As a result, people can use the words *palace* or *throne* in reference to the king, and they can use *throne* in reference to his kingship. In Luke 1:32 Gabriel says to Mary, in regard to the son she will bear, 'And the Lord God will give to him the throne of his father David.' Here the mention of *throne* activates both THRONE and the whole KINGDOM schema, with the expectation that the hearer will infer that the most contextually relevant concept in the schema is not THRONE but

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[92] For a brief summary, see Keener, *The IVP Bible Background Commentary: New Testament* (Downers Grove: InterVarsity Press, 1993), ad loc.

[93] Mandler, *Cognitive Psychology*, 37.

KINGSHIP. In some contexts the most relevant concept is KING. The CEV translates this verse as 'The Lord God will make him king, as his ancestor David was', on the assumption that giving someone kingship means to make him king. Attempts to explain metonymy on the basis of lexical relations or real-world relations have failed to explain how it works or to explain its scope, whereas schema theory explains it as the co-activation of concepts in the same schema, with the most relevant one being selected. (Relevance Theory is discussed in Chapter 5 and 6.)

The Greek term βασιλεία 'kingdom' is used in the New Testament to evoke many of the different concepts in the kingdom schema, and it is left to the reader to infer the most relevant concept and referent. A sampling of my own inferences are shown in the table below.

Verse	English Standard Version	Concept	Another version
John 18:36	My kingdom is not of this world.	kingship	My **kingship** is not of this world (RSV)
Luke 19:12	A nobleman went into a far country to receive for himself a kingdom and then return.	kingship over a kingdom	… **authority to be king** and then return. (CSB)
Luke 1:33	and of his kingdom there will be no end.	reign	and his **reign** will have no end. (NJB)
Heb 1:8	the scepter of uprightness is the scepter of your kingdom	your manner of **rule**	You **rule** with a scepter of justice (NLT2)
Luke 22:29	and I assign to you, as my Father assigned to me, a kingdom	authority in the kingdom	Now I confer on you the **royal authority** my Father conferred on me. (Message)
Matt 20:21	Say that these two sons of mine are to sit, one at your right hand and one at your left, in your kingdom.	in the **government of your kingdom**	
Rom 14:17	For the kingdom of God is not a matter of eating and drinking but of righteousness and peace and joy in the Holy Spirit.	**the way of the Kingdom** of God	
Matt 18:23	Therefore the kingdom of heaven may be compared to a king who wished to settle accounts with his servants.	**ways of the Kingdom** of Heaven	
Mark 12:34	You are not far from the kingdom of God.	gaining **citizenship in the Kingdom** of God	
Matt 21:31	Truly, I say to you, the tax collectors and the prostitutes go into the kingdom of God before you.	are gaining **citizenship in the Kingdom** of God before you are	
Matt 5:3	for theirs is the kingdom of heaven.	for they have **citizenship in the Kingdom** of Heaven	They **belong to the kingdom** of heaven! (CEV)
Matt 11:11	Yet the one who is least in the kingdom of heaven is greater than he.	least among **the citizens of the Kingdom** of Heaven	
Rev 1:6	and made us a kingdom,	made us **citizens of his kingdom**	

Matt 13: 41	The Son of Man will send his angels, and they will gather out of his kingdom all causes of sin and all law-breakers,	out of the **realm** of his kingdom	
2 Tim 4:18	The Lord will rescue me from every evil deed and bring me safely into his heavenly kingdom.	his **realm** in heaven	
Luke 10:9	Heal the sick in it and say to them, 'The kingdom of God has come near to you.'	**benefits of the Kingdom** of God	
Luke 9:62	No one who puts his hand to the plow and looks back is fit for the kingdom of God.	**service to the Kingdom** of God	… fit for **service in the kingdom** of God (NIV)
Luke 17:21	behold, the kingdom of God is in the midst of you[94]	**the king of God's kingdom**	
Matt 13:31	The kingdom of heaven is like a grain of mustard seed that a man took and sowed in his field.	**the Kingdom of Heaven** (*in toto*, i.e. the rule, citizens, realm, custom, authority)	

Table 3-C Use of the term βασιλεία 'kingdom' to evoke concepts of the kingdom schema

It might be noted that the term βασιλεία 'kingdom' is used most often in the New Testament to refer to some constituent of the Kingdom of God rather than to the Kingdom as a whole. In the table above, only the last entry relates to the whole kingdom or most of it.

Epistemological points

- Most of a person's knowledge is organized and stored as schemata, which are configurations of concepts, both general and singular.
- Concepts get much or most of their meaning from their interrelationships in schemata.
- Schemata become templates for interpreting the world, storing memories, and recalling memories.
- Differences in culture and worldview can be reduced for the most part to differences in schemata and hence differences in conceptual systems. To understand or represent a part of a society's knowledge, one would need to identify the relevant schemata but also the general structure of their conceptual system, especially insofar as it embodies their worldview.
- Activating a schema makes some information more accessible due to spreading activation and makes other information less accessible due to inhibition.

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[94] Not everyone agrees that Jesus was alluding to himself when he told the Pharisees not to look elsewhere for the Kingdom because it was there in their midst, but it seems evident that Jesus was at that time the only physical presence of the Kingdom. Origin famously described Jesus in his commentary on Matthew as αυτοβασιλεία *autobasileia*, meaning the kingdom embodied in his own person; for source and discussion see Rottenberg, *The Promise and the Presence: Towards a Theology of the Kingdom of God* (Grand Rapids: Eerdmans, 1980), 28.

Hermeneutical implications

Since the biblical authors sought to communicate personal concepts that are far richer than the lexical concepts, it is cognitively justifiable for Bible commentators and biblical theologians to reconstruct these authorial concepts as well as possible and to identify the variety of expressions (synset) that an author uses to signify each one. They are also justified in distinguishing between one author's conception and another's. By the same rationale it is cognitively justifiable for theological Bible dictionaries to present scholarly reconstructions of authorial concepts, that is, to explicate concepts according to author and to recognize the synset of expressions used by the author to signify each concept. The *Theologisches Begriffslexikon* is a step in this direction. It focuses on the concepts developed in the Bible and presents them as groups of similar concepts, but within a group it deals with individual Greek words rather than with synsets, rarely including phrasal lexemes, metaphors, and synonymous expressions, and it discusses the meanings of each Greek word separately, rarely acknowledging conceptual synonymy. It does not always distinguish between lexical concepts and authorial (theological) concepts, and while it sometimes mentions the meaning a term has in a particular book or testament, it does not distinguish differing authorial conceptions as carefully as one finds among Bible commentators and biblical theologians. So while it is a good start and was cutting edge in its time, cognitive linguistics has now advanced to a degree that allows a more sophisticated analysis of biblical concepts.

Since most concepts participate in one or more schemata and take their meaning in large part from their connections within those schemata, a potentially fruitful line of research into biblical concepts and theology would be to investigate the schemata in the Bible in the way that was presented above. Similarly for biblical knowledge to be well represented in a compendium like an encyclopaedia or dictionary, it could be organized and presented according to schemata rather than by lexemes or concepts. The lexemes could be listed in an index.

In light of the co-activation properties of schemata, a study of the schemata in the original cognitive environment of a speech event could help interpreters recognize and explain some instances of metonymy.

Consideration of the co-activation properties of schemata could also help interpreters resolve apparent ambiguities in the use of polysemous words and expressions, thereby clarifying the likely meaning of a text.

3.6. The construction of new concepts

Basic-level concepts

Psychologists and cognitive linguists recognize a class of concepts called **basic-level concepts** (which are not to be confused with basic concepts, meaning primitives). According to Rosch, these are 'the most inclusive (abstract) level at which the categories can mirror the structure of

attributes perceived in the world'.[95] This happens in the sensorimotor system of the brain, with involvement of its mirror-neuron system.[96] An example of a basic-level concept is DOG, as opposed to its subordinate concepts (subcategorizations), such as BEAGLE and DACHSHUND, or its superordinate concepts (supercategorizations), such as MAMMAL and CARNIVORE.

Abstract concepts

When societies conceptualize the less tangible things in their world, they often do so using concepts of the more tangible ones, modifying them where necessary. Thus they construct new concepts by mapping parts of existing concepts into different semantic fields. For example, an intangible like relative social position may be conceptualized in terms of physical elevation (e.g. *high society, lower class*). Lakoff and Johnson call these **primary metaphors** and say they arise 'naturally, automatically, and unconsciously through everyday experience by means of conflation, during which cross-domain associations are formed'.[97] They distinguish primary metaphors from **complex metaphors**, which are formed from primary ones by **conceptual blending**.[98] Highly abstract concepts are structured from these more basic concepts via multiple complex metaphors and conceptual blending.[99] This is not always apparent from the surface forms, especially in English where abstract terms are produced from Latin compounds, but they are quite evident in the Bible. The planning and conduct of one's life, for example, is conceptualized and described as a journey. A partnership with another person is described as a journey together. A good relationship with God is described as walking with Him.

Most general concepts define radial categories

Since many of the features of general concepts are typical rather than essential, some of the denotata are more typical than others. This kind of category is **radial**, **centred,** and **fuzzy** rather than uniform, **rigid**, and **bounded**. Instances of the category radiate out from most typical to least typical, with a fuzzy boundary where membership is left uncertain. This is akin to the distinction in mathematics between bounded sets and centred sets. The bounded set is determined by binary criteria: if an entity satisfies the criteria, it is included. A centred set is determined by distance from the centre: if it is close enough in resemblance, it is included, but

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[95] Rosch, 'Principles of Categorization', 30. This article remains current; it has been reprinted multiple times and posted on the web.

[96] See Aziz-Zadeh and Ivry, 'The Human Mirror Neuron System and Embodied Representations', in Dagmar Sternad (ed.), *Progress in Motor Control: A Multidisciplinary Perspective* (Berlin and New York: Springer, 2009), 355–376; Barsalou, 'Grounded Cognition'.

[97] Lakoff and Johnson, *Philosophy in the Flesh*, 46. They give a list of examples on pp. 50–54. See also Lakoff and Johnson, *Metaphors We Live By* (Chicago: Chicago University Press, 1980).

[98] See Lakoff and Johnson, *Philosophy in the Flesh*, 46–49. The key text on this is Fauconnier and Turner, *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities* (New York: Basic Books, 2002). Parts of it had been published prior to Lakoff and Johnson's book.

[99] Lakoff and Johnson, *Philosophy in the Flesh*, 73.

there are degrees of resemblance. Most bounded categories are defined as such by human convention, such as being a citizen of Australia or a member of the Roman Catholic priesthood, although a few are natural, such as being a female (as opposed to a male). In radial categories (or centred sets), membership is determined by the degree of similarity a member has to the central exemplar. Since there are degrees of similarity, there are degrees of membership (or 'typicality'), and the boundaries are fuzzy rather than sharp. Common examples of radial categories are chairs and birds, with some members of the category being similar to the central exemplar, while others are more distant (bean bag chair; penguin or kiwi).

As mentioned earlier, people construct new concepts by abstracting features from existing ones, mapping features to a new domain, or combining selected features of two different concepts. In many cases this results in a **radial cluster of concepts**. An example given by Lakoff is MOTHER.[100] He attributes the following five features (among others) to the prototype of MOTHER: is female, provides half of an offspring's genetic makeup, gives birth to a person, nurtures a person, and is married to a person's father. With time the concept came to apply to people who fit only one or two of these features, thereby extending is denotation. But when the need arose to distinguish among these denotata, these extensions became concepts with lexicalizations of their own, such as *adoptive mother*, *surrogate mother*, *biological mother*, and *stepmother*. Thus the concept MOTHER extended to become a radial cluster of concepts, all of whom may be called *mother*.

Epistemological points

- Concepts vary in their formation, with basic-level concepts constituting the initial and most concrete set, from which others are derived. This can involve subordinate concepts for subcategories of basic-level concepts, superordinate concepts for more inclusive classes, and various constructs formed by integrating elements and structures from existing concepts and schemata.
- Different conceptual systems are likely to differ least with regard to basic-level concepts, since they are the most directly embodied ones, and then diverge in the ways they classify, extend, and blend those concepts.
- Most of these processes involve the conceptualization of new experiences and ideas on analogy with existing ones. This gives the new concepts something of a metaphorical structure. It also gives rise to radial clusters of concepts.
- This process is not random but follows patterns that have been described as conceptual metaphors. These vary among language communities.

[100] See Lakoff, *Women, Fire, and Dangerous Things*.

Hermeneutical implications

The interpreter is vulnerable to overlooking the metaphorical and metonymical origins of concepts in her own lexical system and being overly aware of them in a second language, especially if they have been translated literally into her language. For example, she might think the Hebrew word לֵב *lēḇ* 'heart' is often used figuratively, because the usage seems figurative in English: of 601 tokens in the Hebrew Testament, only once or twice is the term used in reference to the cardiac organ, and in one of these (2 Sam 18:14) the referent of *lēḇ* 'heart' is probably the thoracic cavity:

> And he took three javelins in his hand and thrust them into the heart of Absalom while he was still alive in the oak.

Since the word has been translated into English as *heart* in almost all passages, English readers get the impression it is used figuratively. Creative metaphors, however, become entrenched when repeated a few times. So it is evident *lēḇ* has taken on additional conceptual meanings. The original concept was probably the unseen internal organs, perhaps the heart. Then other unseen interiors, such as the locus of thoughts and feelings, were conceptualized in terms of an internal organ, leading to a radial multiplication of concepts. In contrast to this, the Arabic cognate *lubb* just means the unseen physical interior of something and is not used in reference to an internal organ at all, nor to thoughts and feelings.

Conceptual blending has been explained as **conceptual integration**. Mark Turner defines it in his article 'Frame Blending' as 'a basic mental operation that works on conceptual arrays to produce conceptual integration networks'.[101] As his title suggests, this involves the blending of schemata or portions of schemata to construct new schemata. A partial schema for KINGDOM was presented Figure 3-A, and some additional features were listed in Table 3-A as part of the frame for MONARCH. In the Bible, the KINGDOM schema is blended with God's plan of salvation for mankind, which is a script, to produce the blended schema KINGDOM OF GOD. In other words, God's plan for history is conceptualized in terms of KINGDOM.

The Kingdom of God is conceptualized in other ways as well. Relations among the constituent concepts of KINGDOM OF GOD are often expressed using kinship terminology, in which God is 'Father'; members of the kingdom are God's 'sons' and are 'brothers' of one another (these terms being gender inclusive in the original languages); and Jesus is God's 'first-born son' and their 'elder brother'. This suggests there is a blended FAMILY OF GOD schema at work here as well. On the other hand, the use of kinship terminology was normal to describe personal relations in the KINGDOM schema, and this would have transferred to the KINGDOM OF GOD schema. What it shows, as Frank Cross said, is that the KINGDOM schema is itself the blended result of conceptualizing political relationships by means of the FAMILY schema. Nevertheless, research is needed to determine if there is indeed a FAMILY OF GOD schema in

[101] Turner, 'Frame Blending', in Rema Rossini Favretti (ed.), *Frames, Corpora, and Knowledge Representation* (Bologna: Bononia University Press, 2008), 13–32, 13.

the Bible that is separate from the KINGDOM OF GOD schema, and if so then to determine the extent to which it is co-extensional with the KINGDOM OF GOD schema in its denotation.

Paul Hiebert analyzed the Kingdom of God in terms of the distinction between centred-set concepts and bounded-set concepts.[102] He concluded that the Bible teaches a centred-set view of the Kingdom of God and the church of Christ, in which membership is defined by proximity to the central exemplar, who is Jesus Christ himself, with an emphasis on moving towards the centre. Thus the good disciple is one whose life and thought conform increasingly to the prototype of holiness at the centre. He contrasts conceptualization with that of cultural or institutional Christianity, in which membership is rigidly defined in terms of satisfying boundary criteria, such as assenting to the same doctrines, performing the same religious practices, observing the same customs, and sharing the same religious affiliation.

Unlike English, the use of blending and extension is quite transparent in Hebrew, and yet for that very reason it can confuse interpreters. Consider the Hebrew lexeme בֵּן *bēn*. It has as its primary meaning a qualitative objective concept YOUNGSTER. It was extended into the semantic domain of relations, with the form בֶּן *ben*, as the relational concept DESCENDED FROM, as לוֹט בֶּן־הָרָן 'Lot son of Haran' (Gen 11:31) and as the relational objective concept OFFSPRING OF, as in וּמִי בֶן־יִשַׁי 'Who is the son of Jesse' (i.e. David, 1 Sam 25:10). (The Hebrew language has a lexical derivation process that facilitates the extension of object concepts into the relational domain, using a morphological modification called 'construct'.) Looking at the relational objective concept, we can identify some of its features and how they were integrated with other concepts to make conceptual blends expressing a variety of relationships not involving procreation. My analysis of some of these blends is listed in Table 3-D below with English glosses. A few of the blends involve the transfer and adaptation of more than one feature from the source concept, but for illustrative purposes the main feature alone is noted.

original feature of בֵּן *ben* 'offspring'	feature after blending	linked concepts	example of blend	
procreative issue (of parents)	material issue	flame	בְּנֵי־רֶשֶׁף 'offspring of flame' = sparks (a poetic form of conceptualization)	Job 5:7
	projectile	bow	בֶּן־קֶשֶׁת 'offspring of bow' = arrow	Job 41:28
	food product	thresh-ingfloor	בֶּן־גָּרְנִי 'offspring of my threshingfloor' = my winnowed grain	Isa 21:10

[102] See Hiebert, *Anthropological Reflections on Missiological Issues* (Grand Rapids: Baker, 1994).

	social product	God, people-group	בְּנִי בְכֹרִי יִשְׂרָאֵל 'Israel is my first-born offspring' = I have created Israel to be a nation who will serve me. [said by God]	Exod 4:22; cf. Isa 64:8; Deut 32:6
	creation	God, creation	Ἀδὰμ τοῦ θεοῦ 'Adam the [offspring] of God' = Adam the creation of God	Luke 3:38
learner (from parents)	follower of sect, disciple of teacher	religious leaders	οἱ υἱοὶ ὑμῶν 'your offspring' = your followers or disciples [said to religious leaders]	Luke 11:19
			בְּנֵי־הַנְּבִיאִים offspring of the prophets = followers of a prophet	2 Kings 4:38
			בְּנִי (= τέκνον in LXX) (Samuel addressing Eli)	1 Sam 3:16
emulator (of parents)	emulator	devil	υἱὲ διαβόλου offspring of [the] devil = emulator of Satan, devilish person	Acts 13:10; cf. John 8:44
		God	υἱοὶ ὑψίστου = בְּנֵי עֶלְיוֹן offspring of Most High = emulators of God, godly people	Luke 6:35; cf. Matt 5:45
subordinate (to parents) with authority over servants	client king	patron king	עַבְדְּךָ וּבִנְךָ אָנִי 'I am your servant and your offspring' [said by Ahaz king of Judea to Tiglath-pileser king of Assyria as a client king to his patron]	2 Kings 16:7
	vice regent and client king	God as ruler of his people	בְּנִי אַתָּה 'you are my offspring' = You are appointed by God as his vice-regent over Israel and the nations	Ps 2:7; cf. Ps 89:27
		God as ruler of his people	יִהְיֶה־לִּי לְבֵן he shall be to me offspring = David's son will receive grace and authority from God	1 Chr 17:13–14; 22:10
subordinate member of family (to parents)	citizen, subject	ruler, judge	בְּנִי 'my offspring' [said by Joshua to Achan as his subject when judging his crime against the nation, prior to executing him)	Josh 7:19

			בְּנִי ‘my offspring’ [said by Saul to David as his subject, while in pursuit of his arrest and death]	1 Sam 26:17
			אַךְ־עַמִּי הֵמָּה בָּנִים לֹא יְשַׁקֵּרוּ ‘Surely they are my people, offspring who will not be disloyal’ = citizens/subjects	Isa 63:8; cf. Deut 14:1
		kings	οἱ βασιλεῖς ... λαμβάνουσιν τέλη ... ἀπὸ τῶν υἱῶν αὐτῶν ἢ ἀπὸ τῶν ἀλλοτρίων Do kings … take taxes … from their offspring or from foreigners? = … from their citizens …	Matt 17:25
		kingdom of God … Satan	οἱ υἱοὶ τῆς βασιλείας· ... οἱ υἱοὶ τοῦ πονηρου ‘the offspring of the kingdom … the offspring of the evil one’ = the citizens of God’s kingdom [as opposed to] those subject to Satan	Matt 13:38; cf. 1 John 3:10
respectful dependent (of parents)	client / supplicant	healer (Jesus)	τέκνον = בְּנִי, ברי (Jesus addressing adult paralytic)	Mark 2:5; cf. Luke 5:20
		healer (Elisha)	בִּנְךָ בֶן־הֲדַד מֶלֶךְ־אֲרָם שְׁלָחַנִי אֵלֶיךָ ‘Your son Ben-hadad king of Syria has sent me to you’ [said by Syrian official to Elisha as a respectful client to a patron who can help him]	2 Kings 8:9

Table 3-D Some conceptual blends involving בֶּן *ben* ‘offspring of’

Some of the relationships above express variations of a patron-client relationship, which was a common relationship in the ancient world and was patterned after the father-offspring relationship. Frank Cross notes that kinship terminology was common in the political covenants of the Ancient Near East, in which the patron king was the described as ‘father’ and the citizens or client kings were his ‘sons’.[103] Some of the client kings were vassals.

What is significant about the process of blending is that abstract concepts are not constructed by collecting features together into a new concept but rather by blending and modifying existing concepts. In other words, new experiences and ideas are conceptualized in terms of existing ones, often in accord with conceptual metaphors at work in the language concerned. Different cultures and languages have different sets of conceptual metaphors and select different sets of source concepts to frame their construction of new ones. This affects the

[103] Cross, ‘Kinship and Covenant in Ancient Israel’, in Frank Moore Cross (ed.), *From Epic to Canon; History and Literature in Ancient Israel* (Baltimore: Johns Hopkins, 1998), 3–21.

way their entire conceptual system develops. So by studying the conceptual metaphors and other patterns of concept construction in a language, one can gain a better understanding of the language community's conceptual system and concepts. This can give insight into the constructed concepts and also keep one from misinterpreting them as if the source concepts were intended rather than the blended constructs. Tim Farrell, for example, has investigated the Gospel of Matthew in this regard and has identified conceptual metaphors that seem to structure many of the sayings and conceptualizations. These are summarized in Table 4-E below.[104]

TIME IS SPACE	BLESSING/KNOWLEDGE/GOOD IS WEALTH
LIFE IS A JOURNEY	IMPORTANT IS HEAVY
KNOWING IS SEEING	EASY IS LIGHT, DIFFICULT IS HEAVY
OBEYING IS HEARING	RESPONSIVENESS IS SOFTNESS
OBEYING IS HOLDING	GODWARD IS UP
FULFILLING IS FILLING	IMPORTANT IS UP
THE BODY IS A CONTAINER	IMPORTANT IS FIRST
LEADERSHIP IS HUSBANDRY	BEING OUTSIDE OF GOD'S CARE IS DEATH
COVENANT IS KINSHIP	INSTRUCTION IS NOURISHMENT
A COMMUNITY IS A HOUSEHOLD	BLESSINGS ARE NOURISHMENT
LIFE IS A BUILDING	SPIRITUAL LIFE IS A BODY
HOLINESS IS CLEANNESS	GOD'S PEOPLE IS A POSSESSION WITH A PURPOSE
PEOPLE ARE ANIMALS	BELONGING IS PROXIMITY
PEOPLE ARE PLANTS	WARMTH IS AFFECTION
SIN IS DEBT	UNDERGOING IS CONSUMING (SUFFERING IS DRINK)
	PERMITTING IS LOOSING, FORBIDDING IS BINDING

Table 3-E Conceptual metaphors in the Gospel of Matthew

It might be noted that two of these conceptual metaphors above underlie most of the blends listed in Table 3-E, namely A COMMUNITY IS A HOUSEHOLD and COVENANT IS KINSHIP. A third conceptual metaphor can be seen to underlie some of the blends in Table 3-F, namely PRODUCING IS BEGETTING. It might be noted that many of the concepts used in English were formed ages ago in other languages, such as Latin and French, or were formed more recently from Latin and Greek etymons. As a result, the blended nature of their construction is not nearly as evident as it is for some of the Hebrew expressions. This can lead interpreters to misunderstand expressions in the Bible as if they were active metaphors or as if the terms were

[104] Farrell, 'Metaphor in Matthew's Gospel: Its Cognitive Structure, Background, Culture Dependence and Translatability'(Roehampton University, 2004). Farrell focuses on the conceptual metaphors in the left column and discusses the others more briefly in an appendix.

intended ‘literally’ without blending. In fact, an overly literal interpretation or translation can now be defined as one that ignores conceptual blending and tries to reduce all lexical meaning to basic-level concepts.

The Hebrew qualitative objective concept YOUNGSTER, lexicalized as בֵּן *ben* (masc.) / בַּת *bat* (fem.) provides an example of the radial extension of a concept (and term) into different domains, with alterations of its conceptual meaning. This concept was extended in the qualitative direction to mean YOUNG EXEMPLAR OF (some genus of animal) and ONE AGED (a certain span of time). The basic concept extended in the relational direction to designate a biological relationship, HUMAN OFFSPRING OF, with modification of the absolute noun to a relational noun. Each of these generated a radial cluster of daughter concepts. The corpus of ancient Hebrew documents is too limited to reconstruct the etymological history with certainty, but the differences suggest a natural progression, which I outline below as a plausible theory.

The relational concept HUMAN OFFSPRING OF extended to the animal kingdom as ISSUE/OFFSPRING OF, and from there to even EGG OF. From ISSUE OF it extended to DESCENDENT OF and PROJECTILE FROM, as sparks from (a fire) or arrows from (a bow) or someone sent on a mission from someone. From HUMAN SON OF came the subordinate social relationships FOSTER SON OF, LOYAL FRIEND OF, APPRENTICE TO, DISCIPLE OF, DEPUTY TO, and VICEROY OF (a ruler). Independently of those it extended to the concept SUBJECTS OF (a king) and from there to CITIZENS OF (a kingdom) and INHABITANTS OF (a region). HUMAN SON OF also extended to the social relationship HEIR OF. The concept HEIR OF extended to EXEMPLAR OF, as a son inherits and exemplifies traits of his father, so one finds many Hebrew phrases based on this conceptual metaphor, such as *son of might*, *son of malice*, and *sons of light*. HEIR OF extended to the political relationship SUCCESSOR TO. The idea of SUCCESSOR TO KING DAVID became part of the MESSIAH concept, with the result that the term *the son of David* became linked to the MESSIAH concept, even if the Messiah was not a patrilineal descendent of David. (Jesus, in fact, perplexes the religious leaders on this point, asking how David could call the Messiah ‘Lord’ if the Messiah were his ‘son’.) All of these extended concepts remained associated with the lexeme בֵּן *ben*. If the interpreter does not reconstruct the extended concepts of this word, she could wrongly assume it means YOUNGSTER or SON OF in contexts where one of the extended concepts was intended, or she could fail to see the metaphorical structure that allows *son of death* to denote PERSON CONDEMNED TO EXECUTION. My reconstruction of the conceptual extension of *ben*, which is not exhaustive, is shown in the diagram below.

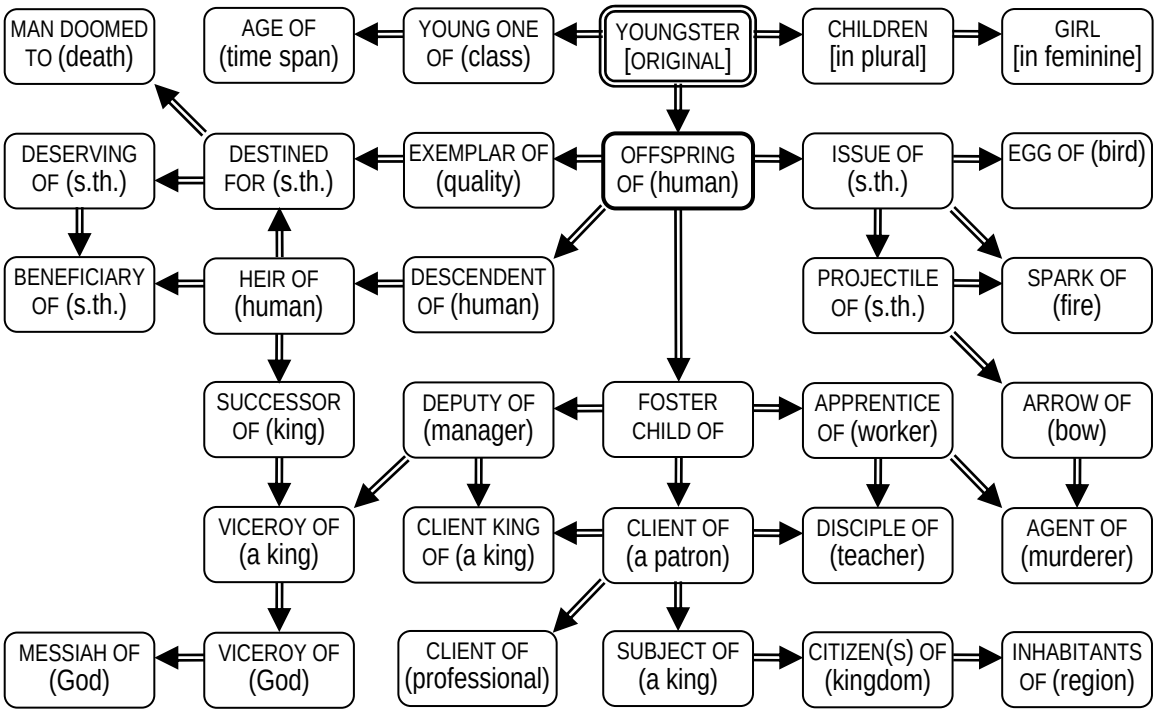

Figure 3-F Radial cluster of concepts associated with Hebrew בֵּן *ben*

(Arrows mark direction of derivation of new concepts through extended use of the term.)

It might be noted that when these concepts are translated into English as *son*, the reader can misinterpret this as the usual, literal meaning of the English word *son* or wrongly assume the author is using a creative metaphor. On the other hand, if the concepts are translated using the normal English terms for them, the metaphorical traces are lost, along with the rich associations they might have evoked.

Hermeneutical points

- By studying the conceptual metaphors that underlay the conceptual constructs of the biblical author's language and society, the interpreter can gain insights into the concepts and conceptual system of the author and his audience. This can also help her to recognize constructs and avoid misunderstanding them as basic-level concepts or as instances of novel linguistic metaphor.
- By reconstructing the likely integrative process by which concepts have been constructed, researchers can better identify the features of the blended concepts.
- One implication for hermeneutics is that the interpreter should become aware of the kinds of conceptual metaphor that underlie much of the metaphorical lexicalization and usage in the original language and the extent to which the metaphorical elements were inactive, active, or novel.

3.7. Concepts and reference

Background

There is a difference between describing Jesus predicatively as 'the Christ' and referring to him as 'the Christ', since the former makes an ascription and the latter makes a reference. But there is also a difference between referring to him as 'Jesus' and referring to him as 'the Christ', and that has been a topic of much debate of some significance for exegesis and translation.

According to Searle, reference is a kind of intentionality, and 'Intentionality is that property of many mental states and events by which they are directed at or about or of objects and states of affairs in the world.'[105] To refer, then, is to communicate the speaker's intentionality about something, or as Récanati puts it, 'to draw the hearer's attention upon some object for the purpose of predicating something of that object, and to do so in the overt manner characteristic of human communication.'[106] Strawson describes this as the 'identificatory function' of referential expressions:

> That function is successfully performed if and only if the singular term used establishes for the hearer an identity, and the right identity, between the thought of what-is-being-spoken-of-by-the-speaker and the thought of some object already within the reach of the hearer's own knowledge, experience, or perception, some object, that is, which the hearer could, in one way or another, pick out or identify for himself, from his own resources.[107]

One way to view reference is an act of intentionality in which a speaker singles out from a focal situation (which could be past, present, future, or fictional) the particular objects and states of affairs that he wants to communicate about and refers to them in his speech act by activating singular concepts for them in the addressee.

Designating singular concepts

The category of singular concepts was introduced in §1.2 by citing as examples the concepts of GOD, MARY MAGDALENE, and THE SANHEDRIN. In these cases, however, the singular concepts are lexicalized in English, namely as *God*, *Mary Magdalene*, and *Sanhedrin*. Such lexemes are called **singular terms**, because each one signifies a singular concept, which correlates with a single entity in some referential world. This is a typical function of proper nouns, such as *God* and *Mary Magdalene*. The SUN concept, on the other hand, signifies a singleton general category, for earthlings at least; it has just one singular concept as its instance, the sun, which is named *Sol*. In English, however, the name is rarely used, and the singular concept is signified

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[106] Récanati, 'Descriptions and Situations', in Marga Reimer and Anne Bezuidenhout (eds.), *Descriptions and Beyond* (Oxford and New York: Oxford University Press, 2004), 15–40, 1–2.

[107] Strawson, 'Singular Terms and Predication', *Logico-Linguistic Papers* (2nd edn.; Aldershot: Ashgate, 2004 [1961]), 41–56, 48.

by using a definite noun phrase: *the sun*, where *the* is the article of uniqueness and *sun* lexicalizes the singleton general concept SUN. Gary Marcus argues that the only difference between mental representations of kinds and those of individuals is that the latter are linked to particular entities. He hypothesizes that here is an 'identifier' or 'marker' in singular concepts that locks them to correlating with a particular individual.[108]

Singular concepts may be lexicalized or not; most are not. A typical homeowner, for example, has well-developed concepts for his car(s), his house, his garden, and many of the things in them, as well as for some of the things in the neighbourhood, but without names for them. These singular concepts, however, enable him and his family to individuate and identify those items, to note their quirks, to keep a history of events related to them, and to predict their future behaviour. When referring to them, he might say 'the apple tree in our garden' or 'my car'. This is a common practice in human language, namely the use of a descriptive noun phrase to refer to an unlexicalized singular concept. Reference is made to unnamed people in the Bible by using descriptions such as *Potiphar's wife*, *the pharaoh of the exodus*, and *the man born blind whom Jesus healed*.

Most treatments of reference assume the speaker utters a descriptive phrase evoking general concepts that enable his addressee to identify a specific entity that lacks a proper name as his intended referent. This is the assumption of the semantic triangle, which has been the standard approach, in one form or another, since the time of Aristotle:

linguistic symbol → general concept → referent.

This assumption, however, fails to explain how the hearer identifies a specific referent in the world on the basis of a general term or concept, since the latter could denote a great many entities in the world. More specifically it fails to explain (1) how either party recognizes a particular entity as the correlate of a particular singular concept, if that concept is not evoked; (2) how a person can modify and add information to the singular concept, if it is not evoked; and (3) how the referent is linked with the general concept without mediation of a singular concept. So clearly the semantic triangle is lacking something, namely the singular concept.

We might note at this point a little-noticed proposal made by Charles Morris in 1938 to distinguish a designatum from a denotatum.[109] Basically the designatum is an unlexicalized singular concept, although Morris's antipsychologism hindered him from using that term, so he just talked about a set of properties. Perhaps that is why his proposal had little impact. On the other hand, if his proposal is recast within a cognitive framework, I submit that the problem can be solved and others besides, namely by observing that speakers use general concepts in descriptions to designate singular concepts, especially unlexicalized ones, and the hearer then

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[108] See Marcus, *The Algebraic Mind*, 119, 140.

[109] Morris, *Foundations of the Theory of Signs* (Chicago: University of Chicago Press, 1938), 5.

identifies the referent as the one entity that satisfies the singular concept. This proposed solution results in a referential quadrangle in place of the triangle.[110]

descriptive referential expression → conceptual description → singular concept → referent.

This can be shown schematically as a semantic quadrangle, as I have done below:

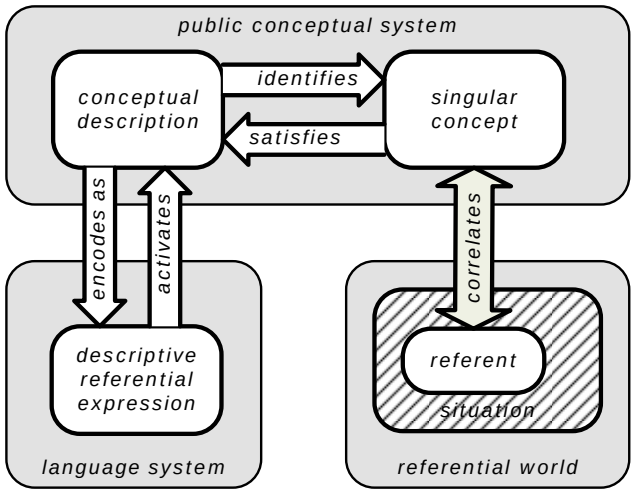

Figure 3-G Proposed semantic quadrangle for descriptive reference

On the other hand, when a rigid designator is used, such as a proper noun, then the referential process is simpler:

proper name → singular concept → referent.

This is shown schematically in Figure 3-H below.

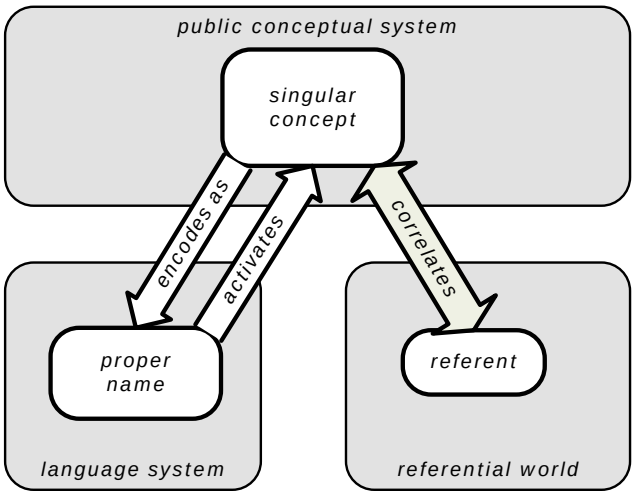

Figure 3-H Proposed semantic triangle for proper reference

[110] This should not be confused with the 'trapezium' proposed by Heger in Heger, 'Les bases méthodologiques de l'onomasiologie et de classement par concepts', *Trauvaux de Linguistique et de Littérature*, 3 (1965), 7–32. His trapezium consisted of sign → signifiant (sense) → concept → signification (denotation). Cognitive linguistics denies a distinction between sense and concept.

This clarifies the use of a singular term as a definite description. This occurs often in the NT, where reference is made to Jesus with a definite description, such as *the Saviour of the World* and *the Christ* or *Christ*. (Although *Christ* is a name in English, it functions like a title or cognomen in the NT, much as *Pharaoh* and *Caesar* do.) Messianic terms are singular in denotation, but they are singular for the role, not the person. Since only one person can fill the role, they are easily used as definite descriptions. I show this in the first diagram below and compare it with one showing reference by use of a proper name.

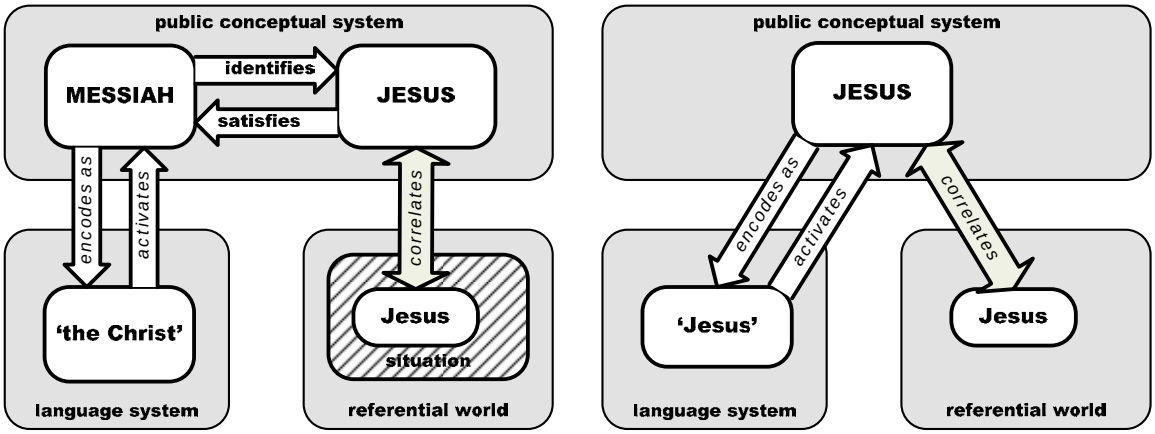

Figure 3-I Examples of descriptive and proper reference to Jesus

This approach has obvious value in the analysis of singular terms and in the discrimination of their usages. It is the use of a cognitive conceptual framework that makes this possible.

For example, my analysis of a semantic (*de dicto*) reference using a definite description can be shown as follows:

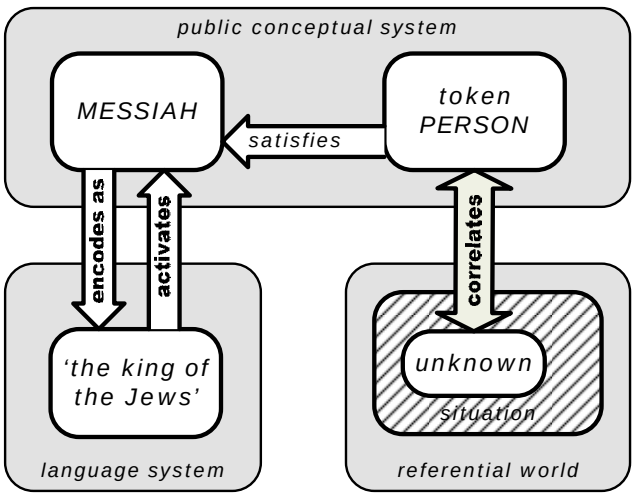

Figure 3-J Where is he who has been born king of the Jews? (Matt 2:2)

Hermeneutical implication

Carson cites as a common exegetical fallacy the 'unwarranted linking of sense and reference', in which the interpreter (or lexicographer) draws the meaning of a word from its reference in a passage rather than from 'the mental content with which the word is associated',[111] i.e., from its lexical concept. Carson blames this fallacy for some of the deficiencies in Kittel's dictionary.[112] James Barr provided a lengthy critique of the same work for trying to define the lexical meanings of words in accord with the theological 'ideas' and 'concepts' of the authors who were using those words (and with the totality of senses that a word could signify).[113] Cotterell and Turner provide a lengthy review of Kittel, of Barr's critique, and of responses to both authors, then present their own analysis of the issue. They explain the fallacy more generally as a confusion between lexical concepts, which they see as minimal, and concepts in the 'broader' sense, meaning everything known about their denotata or about particular referents.[114] In view of the theory of concepts presented so far, it would seem appropriate to note a four-fold distinction: the lexical concept associated with a word, the contextualizations of that lexical concept in particular contexts, the author's use of that concept in a particular text to make a reference, and the author's private concept, where that is relevant. With this in mind, the problem in the first five volumes of Kittel can be analysed as: (1) a confusion between the lexical concept, the biblical author's private concept, and the lexicographer's conflations of private concepts from different authors; and (2) a conflation and misapplication of contextualized variants.

Returning to reference and ascription, the importance for exegesis is that the concept evoked to make a reference is generally from the presupposition and is not new information. Therefore one can paraphrase the statement by evoking other concepts to refer to the same referent and still communicate the same proposition. An ascriptive use, however, is involved in an assertion and is being presented as new information to the addressee. One cannot evoke a different concept and maintain the same proposition. So when a concept is used in an assertion it is generally more informative than when it is used in a reference. An assertion in the Bible that Jesus is Lord therefore has more significance theologically than a reference to Jesus as the Lord or as the Lord Jesus, and certainly more significance than addressing him politely as *kurie* Lord. This is significant not only for theological interpretation but also for translation of the Bible, since there is more flexibility in how referential usages can be translated than in how ascriptive usages can be translated. Yet even in referential instances, the exegete needs to figure out in each instance both the intended sense (lexical concept) and the intended referent

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[111] Carson, *Exegetical Fallacies*, 63.

[112] Ibid., 64.

[113] See Barr, *Semantics*, chap. 8.

[114] See Cotterell and Turner, *Linguistics*, 117-125. See their fourth chapter for their critique and analysis.

(singular concept), and translators need to ensure that their audience can recover both of them. Curiously, one finds this largely ignored in the commentaries.[115]

Epistemological points

- A singular concept typically represents the significant parts, properties, functions, values, motions, locations, history, and associations of a single entity. A general concept represents features common to a class of entities, in part by abstracting features common to a group of singular concepts or common to a series of percepts. People also construct new concepts from configurations of existing ones.
- People differ somewhat in their conceptions of the same entities and classes, and these are their private concepts. They are also aware of commonalities of conceptualization among the people in their community, and these constitute the public versions of their concepts. Communities lexicalize many of their public concepts as the meanings of words and signify the others by using descriptive phrases.
- Speakers use lexicalized concepts in propositions (1) to help identify referents to others, (2) to express their beliefs, values, and feelings, and (3) to describe referents to others. When a speaker describes a referent to his addressee, he is using propositions that have lexicalized concepts, but he is drawing those propositions from private concepts of his own and commending them to her for addition to her private concepts. In other words, a person uses lexicalized concepts in propositions whose purpose is to express and change people's private concepts.

Hermeneutical points

The theory of concepts, as discussed so far, has a number of implications for the theory and practice of biblical interpretation:

- Since people acquire concepts as their cognitive system processes experiences intersubjectively under the influence of society, culture, and language, each ethnolinguistic community develops its own public conceptual system. It is these public concepts that provide lexical meanings for the lexemes of their language. So to understand the lexical semantics of a text in a particular language, the interpreter needs to understand the concepts and schemata of the public conceptual system it reflects, and how it differs from her own. If an interpreter is ignorant of the conceptual system shared by the author and his addressees and projects her own conceptual system onto the text, she will misconstrue the lexical semantics of the author's text.

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[115] Brown and Samuel, *The Meanings of Κυριος in the New Testament* (Dallas: SIL International, forthcoming). When I did this kind of analysis for the 660 instances of κύριος 'Lord/master' in the New Testament, Christopher Samuel assisted me by checking these passages in the commentaries and found there had been very little research of this kind, as is evident in the paucity of citations in the footnotes.

- The author and his audience had their own private versions of their society's conceptual system. When the author is conveying information to his addressees, he is usually drawing it from his private concepts and commending it to his addressees for inclusion in their own private concepts. So the better one understands the private conceptual systems of the author and his addressees, the better one can understand what was being communicated between them.
- Since public conceptual systems change over time, the interpreter should become aware of changes in the lexical semantics of the authors and audiences represented in the Bible. For example, in the course of the compositional history of the Bible, the concept of GOD is clarified and expanded considerably, as are the concepts of RIGHTEOUSNESS and GRACE. If the interpreter, however, projects a later conception onto earlier instances of usage, or vice versa, she will misconstrue the conceptual content of those instances.
- Different authors have different private versions of concepts, especially when it comes to abstract concepts such as those of theology and worldview. They have their own idiolects as well, meaning they prefer the use of some lexemes over others. So the interpreter needs to become acquainted with relevant distinctions in the private concepts of particular authors and interpret each one with respect to his own conceptual system rather than that of another author.
- The main informative function of the Bible could be described as one of correcting and enriching people's concepts and conceptual system (i.e., their worldview). For example, in the course of a single Gospel, Luke shows Jesus correcting and expanding people's concept of the Kingdom of God and their concept of the Messiah. If a modern interpreter assumes a static and uniform concept in all passages, she will misunderstand what is being communicated at many points.

3.8. Conclusions

It is evident that a cognitive-based theory of concepts has value and relevance for biblical hermeneutics. For one thing, it provides a richer understanding of knowledge, culture, lexical meaning, and authorial meaning, all of which figure prominently in the hermeneutical task. It also provides tools for the analysis of public concepts evoked by authors and the personal concepts conveyed by authors, while distinguishing both from words. If one of the goals of naturalized hermeneutics is to identify cognitively optimal processes for interpreting texts, then a cognitively grounded theory of conceptual analysis is clearly one of them. Since concepts are public, private, interconnected, interdependent, dynamic over time, and contextualized in each usage, the task of reconstructive interpretation can benefit from research that seeks to reconstruct the conceptual systems of the interlocutors involved in communicative events.

Another implication is that a purely text-based or reader-based approach to interpretation has little hope of comprehending the concepts of an author from an historically distant culture, as the reader will merely project her own concepts onto the author's words and see a reflection of her own conceptual system. This is significant for communication, which the following chapters will discuss. Another implication is that interpreters would do well to focus on biblical concepts and schemata rather than on biblical words and to recognize conventionalized phrases as single lexemes that evoke particular concepts rather than as strings of concepts. More specifically, since the semantic content of concepts is encoded in their networks of propositional relations with other concepts, particularly in schemata, the conceptual analysis of biblical concepts should seek to recover their propositional content as encoded in a schema of conceptual relations, and those as part of a whole conceptual system. Anthropologists and social psychologists have been studying schemata for several decades now, but few biblical scholars have taken this up. Cognitive scientists working in artificial intelligence and knowledge representation have developed computerized semantic networks to mimic human conceptual systems or to represent specific knowledge networks, such as medical knowledge, but nothing like this has been attempted for the Bible. *The development of computerized conceptual networks to model the conceptual systems reflected in the Bible constitutes a domain for new biblical research, with potential to elucidate the networks of biblical concepts and schemata more precisely, with potential benefits for biblical theology. Since concepts are built in large part from episodic knowledge, such a network should include links to relevant biblical narratives.*

4. Hermeneutics and the Social Organization of Communicative Events

> Interpreting texts is a mode of normative engagement
> with my fellow human beings, and with God
> — Nicholas Wolterstorff, 2000 [1]

Hermeneutics is concerned with the ways in which people can understand the meaning of communicative events and find significance in them for themselves and for others. The term **speech event** or **communicative event** denotes social events in which people communicate information, whether that communication is spoken, written, or signed. Like other controlled events, speech events involve actions, instruments, manners, and settings, as well as participants in a variety of possible roles and relationships, and they can have purposes and effects, both intended and otherwise. But unlike other events, communicative events involve an ostensive transfer of information. This transfer involves an interplay of production and comprehension: A speaker produces speech, text, gesture, or other communicative stimulus for his addressee to process in her context, and she processes that utterance with an expectation that she will understand what the speaker wants her to know and feel.

The Bible itself is a record of many communicative events. Each of the literary units is itself a verbal stimulus in a communication between a biblical author (or redactor) and his audience. Many of these units report communicative events that took place previously between other people or between God and people. A translation of the Bible adds a further layer of communication, that between the translators and their readers, to whom the translators are recommunicating the author's message to his audience. And an exposition of the Bible, or an annotation of the biblical text, is a communication between the expositor and his audience, for whom he is elucidating the original speech events. All of these are acts of communication, and as such they involve the social and cognitive principles that underlie all communication, as well as ones particular to the languages and cultures of the different communicative contexts. So to have a theory of textual interpretation, we first need a theory of communication, especially one that can be applied to the special case of texts.

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[1] Wolterstorff, 'A Response to Trevor Hart', in Craig Bartholomew et al. (eds.), *Renewing Biblical Interpretation* (Scripture and Hermeneutics; Milton Keynes: Paternoster, 2000), 338. He wrote:

> When I read *The Confessions*, I am interpreting what Augustine said: I am not just dealing with some impersonal object, the text of *The Confessions*. So too when I take up the Bible: I am not just taking up a text, an impersonal object, which somehow washed up on the shores of the Aegean; I am dealing with St. Paul, and by way of dealing with him, I am, awesomely, dealing with God. (pp. 337–338).

4.1. Speaker, addressee, utterance, and effect

The basic elements of an assertive speech act were described long ago by Aristotle in his *Rhetoric*:

> σύγκειται μὲν γὰρ ἐκ τριῶν ὁ λόγος, ἔκ τε τοῦ λέγοντος καὶ περὶ οὗ λέγει καὶ πρὸς ὅν, καὶ τὸ τέλος πρὸς τοῦτον ἐστιν, λέγω δὲ τὸν ἀκροατήν.
> Any speech involves three elements: the speaker, what he says about something, and an addressee, namely the hearer, and the intended effect is towards this one.[2]

In other words, a **speaker** produces an utterance on some **topic** for his **addressee**, meaning the one to whom his message is addressed, with the intent of having an effect on her.[3] In psychologistic terms, we can say that the utterance serves as a **verbal stimulus** to produce a **cognitive effect** in her, such as a new belief, a strengthened value, a revised conception of something, or a decision to do something.[4] The effects produced in the addressee are not only informational and actional, they can also be affective or aesthetic—involving the emotions or the aesthetic faculties. A single utterance can produce effects of all kinds, and hermeneutics is legitimately concerned with all of them, but in this present work I am focussing on informational cognitive effects, i.e. to the thoughts produced rather than the feelings or aesthetic judgements.[5]

Hermeneutical implication

It is manifest that authors produce texts by intention, not by accident, so their texts are verbal stimuli that ostensively signal the author's desire to communicate his informative intentions as cognitive effects in the other person. *So from a sociocognitive perspective, reconstructive hermeneutics is rightly concerned with the historical reconstruction of the likely cognitive, affective, and aesthetic effects that an author's text would have produced in his envisaged audience as they responded to his ostensive verbal stimuli.*

4.2. Speech acts and their intended effects

According to Aristotle's model of communication, the speaker produces an utterance for an *intended effect* on his addressee. In other words, communication is a causal act which is implemented through speech. Austin, followed by Searle, developed theories of speech acts in which they differentiated the kinds of act that can be performed through speech. Thiselton drew

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[2] *Rhetoric* Book 1, part III, section 1; author's translation.

[3] Speakers/authors are referred to here with masculine gender, addressees and interpreters with feminine.

[4] See Sperber and Wilson, *Relevance*, 58–61.

[5] It might be noted that an utterance differs from a sentence in that it is an historical event, whereas a sentence is a linguist structure that can occur repeatedly in different utterances to express different propositions, or it might never be spoken at all. Both differ from a proposition, in that the latter designates a state of affairs in some world.

on Austin's version for biblical hermeneutics, and later he used Searle's version as a major component of his biblical hermeneutic.[6] Many other hermeneuts have used it as well, so it will be familiar to readers.

Speech acts can produce cognitive effects, which Sperber and Wilson describe as 'changes in the individual's beliefs'.[7] A **cognitive effect** is therefore a change in the knowledge stored in the addressee's long-term memory, namely changes in her concepts, beliefs, values, schemata, stories, etc. Carston defines cognitive effects as follows:

> [They] include the strengthening of existing assumptions of the system, by providing further evidence for them, the elimination of assumptions that appear to be false, in the light of the new evidence, and the derivation of new assumptions through the interaction of the new information with existing assumptions.[8]

As an example of an assertive speech act, the speaker might make an assertion to the addressee saying, 'It will certainly rain tomorrow.' In the absence of other evidence, what the addressee actually stores in her memory for the sake of planning might be a mitigated form of the proposition, something like 'It might rain tomorrow.' In that case the cognitive effect differs from the illocutionary intent.

The main components of a speech act are represented in my diagram below:

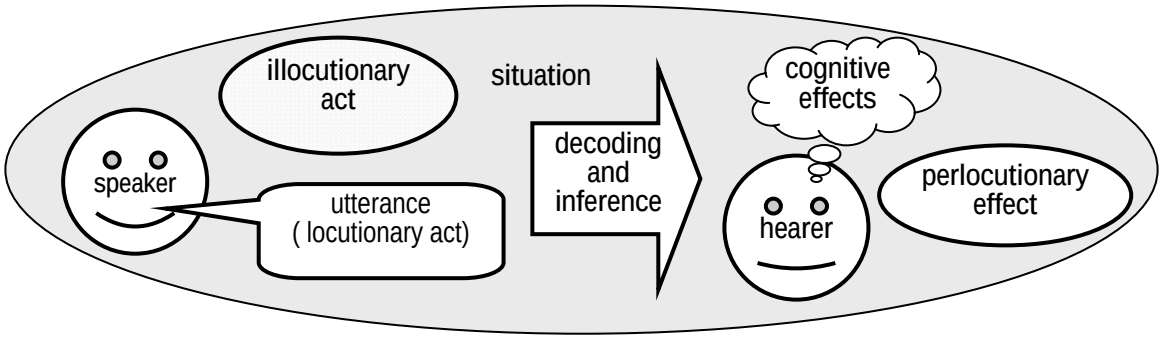

Figure 4-A Representation of a speech-act model of communication

Hermeneutical implications

Speech Act Theory demonstrates that meaning is found in the speaker's intentional communicative acts and not just in the words and sentences he uses. It shows that language is

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[6] See Thiselton, 'The Parables as Language-Event: Some Comments on. Fuchs' Hermeneutics in the Light of Linguistic Philosophy', *Scottish Journal of Theology*, 23 (1970), 437–468; Thiselton, *New Horizons*.

[7] Sperber and Wilson, *Relevance*, 265.

[8] Carston, 'Explicature and Semantics', in Stephen Davis and Brendan S. Gillon (eds.), *Semantics: A Reader* (Oxford: Oxford University Press, 2004), 8. See also Sperber and Wilson, 'Précis of Relevance: Communication and Cognition', *Behavioral and Brain Sciences*, 10 (1987), 697-710, 697. and Sperber and Wilson, *Relevance*, 114, 265.

best understood when seen in its social role as an instrument for communication and social interaction, in which speech events are understood as activities.

Speech act theory has additional implications for hermeneutics. In *The Two Horizons*, for example, Thiselton argues that the bearer of meaning is not the word but the speech act,[9] and he develops this further in *New Horizons*.[10] Wolterstorff takes a similar view, proposing that the aim of interpretation is to discern the illocutionary act performed by the author, whether intended or not.[11] Vanhoozer, on the other hand, argues that 'meaning is to be equated with the author's *intended* communicative act' (emphasis added).[12] As opposed to Ricoeur, who viewed a text as an autonomous communicative act, Vanhoozer argues as follows:

> If the text is a meaningful action, and if the meaning of an action depends on the intention of its agent, it follows that the meaning of a text as act depends on its author's intention.[13]

Wolterstorff contrasts this view with 'textual-sense interpretation', in which the author's context and intentions are dismissed from consideration.[14] For him and most pragmaticists, however, 'meaning' is found only in speaker's meaning, not 'sentence meaning' or 'word meaning'.

An utterance can express two speech acts simultaneously, one directly and one indirectly.[15] In a somewhat different version of this, Wolterstorff describes the Bible as involving 'double-agency discourse', in which God through his supervention mediates his own discourse to us via the speech acts of the biblical writers. In this he is echoing the testimony of believers through all the ages to the effect that they experience God speaking to them through the Bible to transform their thoughts and lives. So from a speech act perspective, this is the perlocutionary effect of the divine speech act accomplished through Scripture. Wolterstorff describes three primary mechanisms by which this mediation is accomplished:

> In short, sometimes the pattern of thought expressed by speaking of God as "author" of Scripture, and of Scripture as conveying the "word" of God, is (1) that by way of the human discourse of Scripture, God discourses. But sometimes it is, instead, (2) that the writers of Scripture communicate what God said to them, or (3) that the writers were inspired by God to write what

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[9] Thiselton, *Two Horizons*. He writes (p. 129),

> We conclude, then, that the word alone, in isolation from its context, is not the primary bearer of meaning, but a stretch of language which many linguists and philosophers call a speech-act.

[10] Thiselton, *New Horizons*, 283–311, 597–617.

[11] Wolterstorff, *Divine Discourse*, 199.

[12] Vanhoozer, *Meaning in this Text*, 262.

[13] Ibid., 216–217.

[14] Wolterstorff, 'The Promise of Speech-act Theory', 76.

[15] Malmkjær, 'Speech-act Theory', in Kirsten Malmkjær (ed.), *The Linguistics Encyclopedia* (London & New York: Routledge, 2002), 486–495, 493.

> they did. And sometimes these patterns of thought will not have been distinguished in the writer's mind.[16] [numbers added]

The first view involves God appropriating the human discourses to speak his own discourse to readers today. Discerning the divine speech act is Wolterstorff's 'second hermeneutic', but it depends on the 'first hermeneutic', discerning the speech acts of the biblical authors, and that is the concern of the present work.

Hermeneutical points

- An utterance is part of a communicative act by a speaker to an addressee in a particular context. Thus it is a social activity and must be interpreted as a social interaction within a particular context situated in time and space, within history and culture.
- Comprehension of an utterance includes recognition of the illocutionary intent of the speaker, meaning the kind of speech act that he intended and the effects he hoped to produce in his addressees.
- The speaker's illocutionary intent may be implicit rather than explicit, meaning the addressee will need to infer it from the utterance and its context of usage rather than rely on decoding alone.
- Thus *the inference of authorial intentions is a core element of the sociocognitive process of comprehension*.

It might be noted that SAT entails an inferential view of communication in which the reader seeks to infer the author's intended speech act.

4.3. Sociocognitive functions of communication

For Aristotle, as for many modern theorists,[17] the main function of communication is persuasive. That is to say, the speaker's intent is to change the knowledge and behaviour of other people by providing relevant information. Communication, however, can serve additional functions. In 1958 Roman Jakobson proposed a set of 'fundamental functions of verbal communication' which he partially correlated to the 'factors of verbal communication' in his embellished version of the Shannon-Weaver model. He showed these in two tables, which are overlaid in the diagram below, with the distinct functions of communication shown in italics:[18]

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[16] Wolterstorff, *Divine Discourse*, 284.

[17] See, for example, Berlo, *The Process of Communication: An Introduction to Theory and Practice* (New York: Holt, Rinehart and Winston, 1960), 12–14.

[18] Jakobson, 'Closing Statements: Linguistics and Poetics', in Thomas A. Sebeok (ed.), *Style In Language* (Conference on Style (Indiana University, 1958); Cambridge, MA: MIT Press, 1960), 350–377.

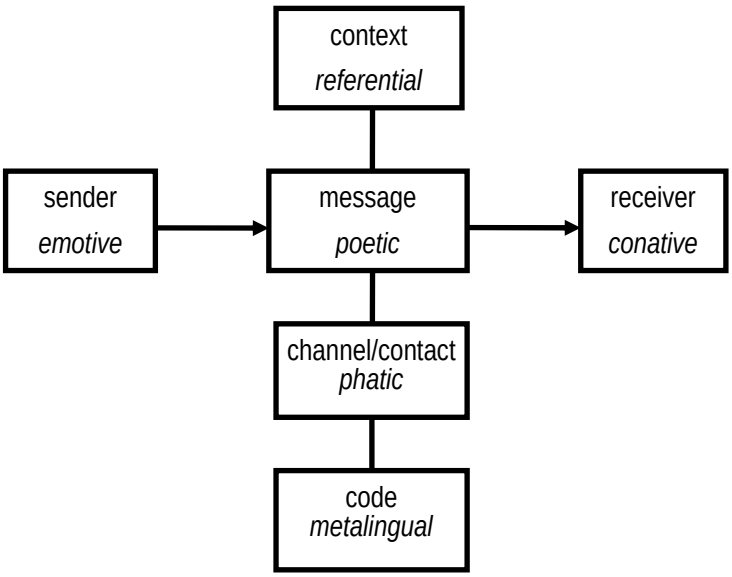

Figure 4-B Jakobson's functions of communication (in italics)

All of these functions can be found in the biblical literature. The significance for hermeneutics is that a text should be interpreted in accord with the functions it was meant to serve (as well as the genre in which it occurs). Some commentators have treated texts as if the referential function were the only one intended, and that tradition persists. Consider the way poetic sections of the Bible have often been translated (and interpreted) as if they were prose, and consider how the pervasive poetic features of the first chapter of Genesis are generally ignored in discussions of its meaning.

Hans-Georg Gadamer, on the other hand, emphasized the poetic function and made it his goal 'to defend that experience of truth that comes to us through the work of art against the aesthetic theory that lets itself be restricted to a scientific concept of truth' and then show that 'the same thing is true of the whole of the human sciences'.[19] He observed that scientific objectivity was unattainable, and so he discounted the value of seeking objective interpretations. Just as beauty is in the eye of the beholder, so the meaning of a text is in the eye of the reader. Thus his approach centres on the reader's experience of the text within his own historical, cultural, and personal context, while nevertheless trying to expand the reader's horizons back through tradition towards the original authors. Gadamer's approach seems appropriate for reading literature if one's goal is artistic appreciation or intellectual stimulation, but his deprecation of scientific methodology makes his approach less helpful for the reader who wants to hear as clearly as possible what the original authors wanted to say.

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[19] Gadamer, 'Truth and Method', in Gayle L. Ormiston and Alan D. Schrift (eds.), *The Hermeneutic Tradition: From Ast to Ricoeur* (Albany, NY: State University of New York Press, 1990), 198–212, 199–200.

Hermeneutical implications

This summary of social functions of communication highlights the interactive nature of communication. As Schiffrin concludes, 'The structures, meanings, and actions of everyday spoken discourse are interactively achieved.'[20] Herbert Clark describes communication as a 'joint activity':

> Yet whenever people use language, they are taking joint actions. Language use and joint activity are inseparable. The conclusion, once again, is that we cannot understand one without the other. We must take what I call an action approach to language use, which has distinct advantages over the more traditional product approach.[21]

In other words, communication involves more than a reader and a text; it involves a social interaction between an author and his addressees, as well as other participants (as discussed in the next section). The implication is that meaning is the result of that joint activity within a given context. Malmkjær argues this very point at some length, with the conclusion that "meaning is seen as relational and momentary, as a function which maps a constellation of utterances, circumstances and interactants onto interpretations".[22]

These observations differ, however, from the reader-response position promoted by Fish. While pragmaticians and cognitive scientists would agree with Fish that 'Meaning is a (partial) product of the utterance-object, but not to be identified with it',[23] they would not agree that meaning arises solely from the preunderstanding that the reader brings to a text in a given situation. They would say that meaning is what the speaker means by what he said in his context. That is its pragmatic and sociocognitive definition. As Fish notes, the reader does bring her own worldview and situation to the text, even her own preunderstanding of what the text will say. The problem is that if she interprets the text on that basis, then the result will not be the author's meaning. If the reader is hoping to hear the author's meaning, then her interpretation will at best be an hypothesis about it, but one based on the wrong context. If she does not care about the author's meaning, then her interpretation will merely be an impression, one that stimulates her own thought processes. Her impression should not be considered an element of 'significance', as Hirsch defines it,[24] because **significance** derives from the interaction of the author's meaning with the reader's worldview and situation, and for that one needs a valid hypothesis of the author's meaning.

In regard to the biblical texts, the interactive nature of communication is seen most clearly in narrated speech events and in written speech acts like certain Epistles. Paul's letters are

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[20] Schiffrin, *Approaches to Discourse* (Oxford: Blackwell, 1994), 416.

[21] Clark, *Using Language* (Cambridge: Cambridge University Press, 1996), 29.

[22] Malmkjær, *Linguistics and the Language of Translation* (Edinburgh: Edinburgh University Press, 2005), 185.

[23] Fish, *Is There a Text in this Class?* , 65.

[24] See Hirsch, *Validity in Interpretation* (New Haven: Yale University Press, 1967).

written to people whom he knew and with whom he had ongoing interactive communication. First and Second Corinthians are part of an exchange of correspondence.[25] In Romans 2, 9, and 11, Paul carries on a dialogue with certain of his addressees, writing their anticipated replies in his own letter.

More importantly for hermeneutics, meaning itself is the result of social interaction as well as cognition. Jenny Thomas makes this the main theme of her book on pragmatics, which concludes with the following statement:

> Finally, I have argued that it is a mistake to adopt an approach to pragmatics which focuses on social factors to the exclusion of cognitive factors, or on cognitive factors to the exclusion of social factors or to adopt an approach which is exclusively speaker-oriented or exclusively hearer-oriented. I have tried to show that in producing an utterance a speaker takes account of the social, psychological and cognitive limitations of the hearer; while the hearer, in interpreting an utterance, necessarily takes account of the social constraints leading a speaker to formulate the utterance in a particular way. The process of making meaning is a joint accomplishment between speaker and hearer, and that is what I mean by 'meaning in interaction'.[26]

Meaning thus emerges through interactive, sociocognitive processes. This is one more reason why the reconstruction of meaning requires a sociocognitive framework.

4.4. Simple participant structures

So far we have spoken of a speaker and an addressee, but a speech event can involve people in a number of different roles, resulting in a number of different configurations. Vimala Herman calls such a configuration of roles the **participant structure** of a speech event.[27]

Imagine a situation in which four women are chatting. Mary, Beth, and Jane know each other well, whereas Ruth is somewhat new to their circle. Jane asks Mary how her son did on his exams, so Mary tells her. Beth already knows how Mary's son did, so Mary ignores her. Ruth, however, does not know Mary's son or anything about him, so Mary makes some information about him explicit for Ruth's sake, information which she would have left implicit were she speaking only to Jane. We can say that all four women are **direct participants** in the speech event. Jane, Ruth, and Beth are all **hearers**. Jane is the addressee, but what is the role of Ruth? Levinson uses the term *indirect target* for such a person, but since we are not using his term *target*, we can call her role that of **indirect addressee**. An indirect addressee is not directly addressed by the speaker, but the speaker does take into consideration differences in

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[25] In 1 Corinthians, Paul replies to a letter he has received from the believers in Corinth. In 2 Corinthians he replies to their response to the first letter. Both letter utilize first- and second-person forms extensively.

[26] Thomas, *Meaning in Interaction: An Introduction to Pragmatics* (London: Longman, 1995), 208.

[27] Herman, *Dramatic Discourse: Dialogue as Interaction in Plays* (London & New York: Routledge, 1995), 31. She also uses *participant framework* and *participant configuration*.

the background knowledge of the indirect addressee and then crafts his message in such a way that the indirect addressee can comprehend his meaning as well as the direct addressee. This means the speaker chooses a context for the utterance that suits both the direct and indirect addressees, and words it so that both groups can identify the intended referents, etc. As for Beth, who was listening but was not addressed in any way, we can say that she is just a **listener**.[28]

When Jesus preaches his 'Sermon on the Mount', his disciples are the addressees, and the crowd of observers are his indirect addressees:

> [1]Seeing the crowds, he went up on the mountain, and when he sat down, his disciples came to him. [2]And he opened his mouth and taught them, saying: '… [11]Blessed are you when others revile you and persecute you and utter all kinds of evil against you falsely on my account.' (Matt 5:1–2, 11)

From verse 11 to the end at 7:27, it clear that Jesus is addressing his disciples (cf. Luke 6:20), yet it is clear that he is also seeking to inform the crowd, and this is made explicit in 7:28–29, where it says, 'the crowds were astonished at his teaching, for he was teaching them as one who had authority, and not as their scribes.' So the disciples are the (direct) addressees, and the crowd are indirect addressees. The importance of this is that the speaker crafts and contextualizes his message in such a way that both the direct and indirect addressees will be able to comprehend it within their own context. When Jesus speaks the parable of the Good Samaritan in Luke 10, he is addressing a particular person who had asked him to define the word *neighbour* in regard to one's obligation to love such people. But a crowd is listening, and it seems evident that Jesus wanted them to understand as well. More to the point, Luke narrates this speech event to communicate a point to his own audience, for which purpose he must ensure it is comprehensible to them, so he is putting them in the position of indirect addressees of the narrated speech of Jesus.[29] The same happens when Jesus speaks to the woman with the haemorrhage in front of a crowd of people, and when Luke narrates this speech event to his readers at Luke 8:48, saying 'Daughter, your faith has made you well; go in peace.' Modern readers, however, are listeners, because Luke did not craft his Gospel for their specific languages and cognitive environments.

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[28] Levinson calls this role 'audience', but we need that term for another role. Goffman did not distinguish indirect addressees from listeners but called both of them 'unaddressed recipients' and 'official hearers'. He did, however, distinguish them from 'unofficial recipients', such overhearers, bystanders, and eavesdroppers. (See Levinson, 'Putting Linguistics on a Proper Footing: Explorations in Goffman's Concepts of Participation', in Paul Drew and Anthony Wootton (eds.), *Erving Goffman: Exploring the Interaction Order* (Cambridge: Polity Press, 1988), 161–227.) Sacks used the term *hearer* for all non-speakers, but when necessary he distinguished a 'proper hearer' from an 'overhearer', as at Sacks, *Lectures on Conversation, Volumes I & II; Edited by Gail Jefferson.* (Oxford: Blackwell, 1995), 65.

[29] Deborah Tannen argues that all narrated speech is 'constructed' (i.e. worded) for the sake of the author's audience. See Tannen, *Talking Voices: Repetition, Dialogue, and Imagery in Conversational Discourse* (2nd edn.; Cambridge and New York: Cambridge University Press, 2007).

According to specialists on literary composition, when an author writes a book for a number of readers, he typically envisages in his mind an audience with a particular cognitive environment, and contextualizes his work in a relevant portion of that environment, which is then the context. They speak of this as the **authorial audience** (or the 'implied reader' or the 'model reader'), and they say that every author has one.[30] Phelan and Rabinowitz define the authorial audience as 'the hypothetical ideal audience for whom the author constructs the text and who understands it perfectly'.[31] The **actual audience** is much broader. I will use the term **authorial context** to refer to the author's model of his intended context within the cognitive environment of his authorial audience. This usage of the term should be distinguished from its usage by some people to refer to an author's personal situation or his own cognitive environment. In other words, I'm using the term *authorial context* to designate the authorial model of the context of the authorial audience. It should be noted that the authorial audience and authorial context are idealized models in the mind of the author, based on what he knows about his envisaged readership. I represent these in the diagram below:

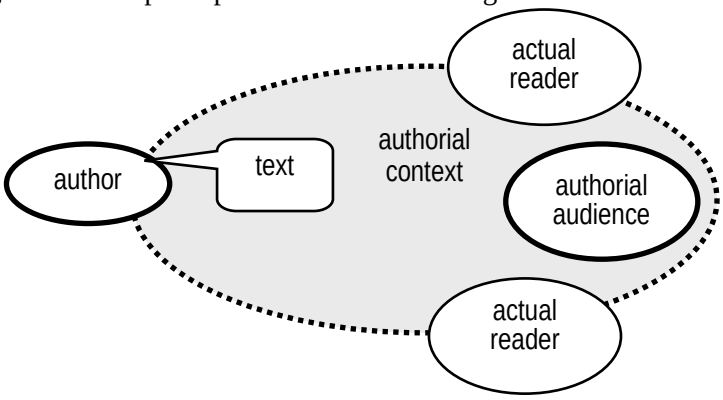

Figure 4-C Authorial audience and authorial context

A point to note is that the authorial audience and authorial context are models in the mind of the author, whereas actual readers differ in various ways from this model and may lack full access to the intended context.

Hermeneutical point

Just as speakers craft their utterances to produce certain cognitive effects in their addressees within a specific context, so authors craft their texts to produce cognitive effects within the

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[30] See the essays in Phelan and Rabinowitz, *A Companion to Narrative Theory* (Oxford and Malden, MA: Wiley-Blackwell, 2005). See the explanation in Rabinowitz, *Before Reading: Narrative Conventions and the Politics of Interpretation* (Ithaca: Cornell University Press, 1987), 20–27. The term *implied reader* was introduced in Iser, *The Act of Reading: A Theory of Aesthetic Response* (Baltimore: Johns Hopkins University Press, 1978). Joel Green follows Umberto Eco in using the term *model reader* for this; see Green, *1 Peter*, eds Joel B. Green and Max Turner (Two Horizons New Testament Commentary; Grand Rapids: Eerdmans, 2007), 241.

[31] Phelan and Rabinowitz, *Narrative*, 543.

context of an audience they envisage. What is important, then, is not so much the individuals envisaged in that audience but the context which the author envisaged for them. The modern reader does not naturally share that same context, so for the interpreter to recover the author's intended cognitive effects, she needs to reconstruct the envisaged context of the authorial audience.

4.5. Complex participant structures

If two people are talking in café or at a bus stop, some of the **bystanders** might hear their conversation. If they do not attend to the conversation but nevertheless hear it, they may be called **overhearers**. If they listen in on the conversation covertly, they are called **eavesdroppers**. Both are **hearers**, as are addressees and listeners.

The role of listener can be distinguished from that of a bystander, who may hear the conversation but is not acknowledged as a direct participant in it.[32] This distinction corresponds to a more general distinction between **direct participants** in a speech event, whose participation is mutually acknowledged and accepted, and **indirect participants**, whose participation is outside the circle of direct participants but who nevertheless hear the speech event, either intentionally or inadvertently.[33] **Turns** in a conversation do not normally pass to indirect participants but only to direct participants, who usually have a right to the **floor**.[34]

Sometimes it is not clear which roles are intended for which people. Consider the following pericope from Luke (13:31–33):

> [31]At that very hour some Pharisees came and said to him, "Get away from here, for Herod wants to kill you." [32]And he said to them, "Go and tell that fox, 'Behold, I cast out demons and perform cures today and tomorrow, and the third day I finish my course. [33]Nevertheless, I must go on my way today and tomorrow and the day following, for it cannot be that a prophet should perish away from Jerusalem."

Jesus clearly states that the addressee of his remark is Herod. Jesus' point to Herod is that his reported malice poses no threat, in part because Herod's weak authority makes him more like a fox than a lion, but more particularly because Jesus is destined to die in another location,

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[32] This usage of *bystander* should be distinguished from that of Mey, who seems to use the term *bystander* for any hearer who is not the addressee. (See Mey, *Pragmatics: An Introduction* (2nd edn.; Oxford: Blackwell, 2001), 140.)

[33] An inadvertent hearer is commonly called an 'overhearer', while an intentional covert hearer is commonly called an 'eavesdropper'.

[34] Levinson, 'Proper Footing', uses the bare term *participant* for what I have called *direct participant*, but this leaves him with no term for indirect participants and no term for referring collectively to everyone involved in a speech event. In conversational analysis, a 'turn' is a shift in roles, particularly a shift in the role of speaker as someone else takes or is given the floor. See Sacks, *Lectures on Conversation, Volumes I & II; Edited by Gail Jefferson.*

Jerusalem. The Pharisees are in the role of intermediaries, but Jesus seems to address his point to them and to his followers as well, as indirect addressees, informing and reminding them of his destiny in Jerusalem. This would seem to be how Luke wants his audience to understand it. Luke began narrating this journey at 9:51, and the main theme of this travelogue is that Jesus is going to Jerusalem to die at the hands of his opponents and then rise from the dead and ascend to heaven, his ultimate destination. Verse 13:33 above fits that discourse theme, and Jesus' indifference to threats just highlights his confidence that his destiny will be fulfilled. So it fits Luke's development of this theme in his discourse to allow Jesus' remark to be indirectly addressed to his followers, including those in Luke's authorial audience.

It seems to me, however, that there is another kind of participant whom should be recognized, whom I will call an **observer**. The observer plays the role of an indirect participant who listens more overtly to a speech event, seeking to decode the utterances, identify the contexts, and comprehend the intended content. This is considered a bit rude if it happens in a café, but there are situations in which it is appropriate. For example, if a cameraman films an unstaged news event in which people are arguing with one another and if it is broadcast on television or radio, then those who listen to it are observers of the speech event. When security officers watch crowds through closed-circuit cameras and listen to their remarks, they are being observers. If a person listens to a recording of a conversation or reads a transcript of it, he is being an observer. When Sarah listens from inside her tent to what the angel says to Abraham (Gen 18:10), that 'Sarah your wife shall have a son', she is being a special kind of observer: an eavesdropper. When we read what she says to herself (v. 12), laughing, 'After I am worn out, and my lord is old, shall I have pleasure?', we are being observers, not addressees. When we read what Paul writes to Philemon, we are being observers, not addressees. When we read how Matthew presents the gospel to his largely Jewish audience, we are also being observers rather than addressees, because we are not among the authorial audience for whom he contextualized his message, even though we are among the actual audience. The same applies to Luke and his largely Greek audience in a Greco-Roman culture, and to Paul and his Greco-Roman Christian audiences: we as readers are observing a speech event between others.

Each author wrote his text in a way that was communicative for the readers he envisaged, his authorial audience. He contextualized it within a model context drawn from the cognitive environment that he assumed for that audience, meaning their culture, language, conceptual system, historical knowledge, and current situation. He then expected them to utilize the concepts, stories, and contextual assumptions accessible to them from this context. The importance of this is well illustrated by Max Turner using a hypothetical scenario:

> To recognize the importance of rightly identifying the presupposition pool, one only has to imagine Paul's letter [to Philemon] being intercepted en route and read by a pagan innkeeper. The latter will have no idea who "Christ Jesus" (v. 1) is, or why Paul (who is he anyway?) is a prisoner for him (v.1). He will assume this Paul has quite a large family of brothers and sisters (vv. 1, 2, 7,

> etc.), and probably that Paul himself and his co-workers (vv. 1, 24) [50] are a band of (mercenary?) soldiers … and that the *ekklēsia* in Philemon's house is perhaps some "assembly" for deciding strategy.[35]

The innkeeper is a **naïve observer**, because he is trying to understand the communication between Paul and Philemon but lacks the background knowledge needed to contextualize Paul's letter and recover his intended references. Max Turner, on the other hand, is a Bible scholar and would be an **astute observer**.

Hermeneutical implications

Readers today are in a similar position to the innkeeper, in the role of indirect participants, and they need to be clued in. They are observing the original speech event from a cognitive environment that is distant culturally, historically, and linguistically from that assumed by the author, and they need to do so competently rather than naïvely. So they face the task of becoming familiar with the original cognitive environment and figuring out the concepts, referents, and contextual assumptions that constitute the context the author expected his addressees to access when interpreting his message to them. In other words, they need to suppress automatic interpretation from a context of their own, reconstruct the authorial context, and consciously reconstruct the way in which the authorial audience would have understood the text within the authorial context to infer the author's informative intentions. The role of the interpreter, therefore, is not that of a reader, not even an authorial reader, but that of a (hopefully astute) cross-cultural observer. Once she has reconstructed as well as she can what the author was communicating to his authorial audience and the effects that would have had on them, she can consider the significance of that information for her own concerns. Chapters 5 and 6 will discuss ways to identify authorial context and reconstruct the audience's likely inference of authorial meaning.

4.6. Observer-interpreters

Suppose now that the conversation among Mary, Jane, Ruth, and Beth is taking place as a scene in a televised soap opera, and that a woman named Lisa is watching it when her friend Maya drops by to visit. They watch together, participating indirectly as observers. Maya has no clue what is going on, because she has never watched that drama series. Although the conversations in the drama are conducted in her own language and reflect her own culture, she knows too little about the participants, their situations, and the prior events to be able to understand the significance of what they are saying. Lisa, on the other hand, has been watching this soap opera for years, and she knows all the participants and their backgrounds. We could say that Lisa is an astute observer, whereas Maya is a naïve observer.

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[35] Turner, 'Hermeneutics', 49.

Suppose now that Lisa helps Maya understand what is going on by providing essential background information, resolving references, paraphrasing statements, and explicating the main points. We can say Lisa is **interpreting** or **elucidating** the speech event to Maya, and she is functioning as an **interpreter**. More specifically, however, Lisa is astutely observing the conversations in the soap opera, exegeting the meaning, and interpreting it to Maya, who is a naïve observer. We can define this role as that of an **observer-interpreter,** meaning one who assists others in the task of comprehending the meaning and significance of a speech event in which none of them were direct participants. If Lisa were interpreting a literary text to someone, then we could call her an **expositor**. If she were doing this in another language, we could call her a **translator**.

These participant roles are represented in the schema below, where the ovals represent each participant's cognitive environment. Everyone but the speaker is a hearer. The observer and audience, however, are indirect hearers.

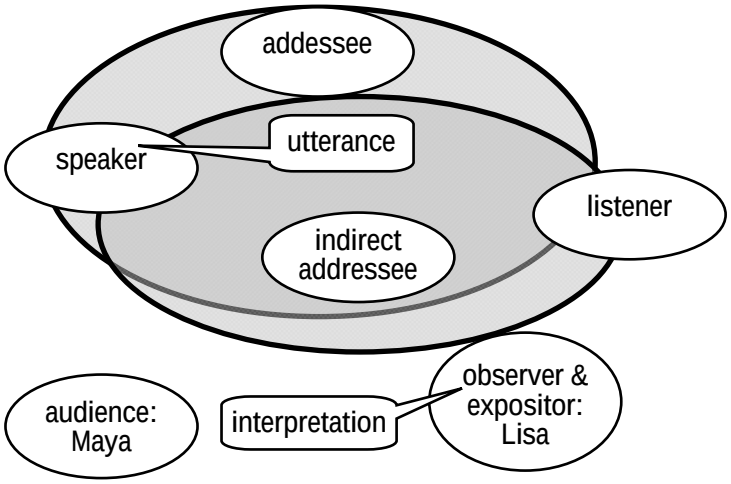

Figure 4-D Direct and indirect participants in a multi-party speech event

Sperber and Wilson make a distinction between **descriptive communication** and **interpretive communication**.[36] In a descriptive communication, the speaker gives expression to some thought of his own, namely a mental representation that is descriptive of some aspect of the world as he sees it or wants it to be. For example, he might say, 'The sky is dark today', in the belief that (1) the sky is dark and (2) his addressee might not have noticed it. In interpretive communication, on the other hand, a person expresses a representation of what someone else has said or thought. For example, he might say, 'Mary said the sky is dark' or,

[36] Sperber and Wilson, *Relevance*. They write (228–229),

> Any representation with a propositional form, and in particular any utterance, can be used to represent things in two ways. It can represent some state of affairs in virtue of its propositional form being true of that state of affairs; in this case we will say that the representation is a *description*, or that it is used descriptively. Or it can represent some other representation which also has a propositional form...in this case we will say that the first representation is an *interpretation* of the second one, or that it is used *interpretively*.

'Mary thinks its going to rain' or, if the context allows, 'What Mary means is that she does not want to go out today.' A representation of someone else's mental representation is a metarepresentation, so interpretive communication involves the expression of metarepresentations.[37] When Paul says, 'Food is meant for the stomach and the stomach for food' (1 Cor 6:13), he is **echoing** someone else's thoughts, not his own. It is an interpretive communication, not a descriptive one. He is not describing the world as he sees it but is metarepresenting someone else's description. When Job says to his self-righteous critics, 'No doubt you are the people, and wisdom will die with you' (Job 12:2), he is echoing their own self-assessment rather than expressing his personal description of their mental prowess. He does this as a kind of irony (sarcasm) to rebuke them.

When authors, including biblical authors, report the sayings and thoughts of others, if they are not quoting the exact words in the original language, then they are engaged in interpretive communication. When translators translate the works of these authors, they are engaged in interpretive use as well. When they translate reported speech, translators are producing metarepresentations of metarepresentations. Expositors are doing the same thing when they paraphrase or summarize a text. Gutt describes interpretive communication (including translation) as a **higher-order act of communication**, because the speaker is communicating elements of a previous communication.[38]

A simple biblical example of interpretative communication is found in Nehemiah 8:8:

> They read from the book, from the Law of God, clearly, and they gave the sense, so that the people understood the reading.

The term מְפֹרָשׁ 'interpreted, translated' indicates an act of interpretation.

Interpretative communication can be more subtle as well. The idiomatic phrase בן אלהים (Greek υἱὸς τοῦ θεοῦ 'son of God') was used with a number of different senses among first-century Jews, but when they used it with the article of uniqueness, as in ὁ υἱὸς τοῦ θεοῦ, they were usually referring to the awaited Messiah (Greek χριστός). First-century Greeks and Romans used a similar phrase, θεοῦ υἱός, without the article of uniqueness, but this phrase had no messianic sense for them. So Luke clarified the Jewish usage of 'the Son of God' by interpreting the phrase for his Greek readers, as seen in Luke 4:41 below, where he added an epexegetical comment that indicated the Messianic sense of this Jewish idiom:

> σὺ εἶ ὁ υἱὸς τοῦ θεοῦ. καὶ ἐπιτιμῶν οὐκ εἴα αὐτὰ λαλεῖν, ὅτι ᾔδεισαν τὸν χριστὸν αὐτὸν εἶναι.
>
> And demons also came out of many, crying, "You are the Son of God!" But he rebuked them and would not allow them to speak, because they knew that he was the Christ.

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[37] For a discussion of metarepresentation, see Sperber, 'How Do We Communicate?', in John Brockman and Katinka Matson (eds.), *How Things Are: A Science Toolkit for the Mind* (New York: Morrow, 1995), 191–199. and Wilson, 'Metarepresentation'.

[38] Gutt, 'On the Significance of the Cognitive Core of Translation', *The Translator,* 11/1 (2005), 25–49.

In the last clause above Luke is reporting thoughts or knowledge. This is also a kind of interpretive use, since it expresses a metarepresentation. Luke does this in other places as well, where he thinks his Greek readers lack the cultural background to infer people's motives. In fact, he was probably familiar with their misinterpretations from experience telling the Gospel to them and knew where he needed to explicate implicit premises and conclusions. An example is the story in Luke 13:10–17 where Jesus heals a crippled woman. In verse 14 Luke has inferred the thoughts of the ruler of the synagogue, and he interprets them for his Gentile readers:

> But the ruler of the synagogue, *indignant because Jesus had healed on the sabbath*, said to the people, "There are six days on which work ought to be done; come on those days and be healed, and not on the sabbath day."

Jewish readers would have easily inferred that the ruler was indignant, and they would have known why. On the other hand, many Gentile readers would not have accessed the contextual assumption that rabbis considered healing to be a form of work, and might not have understood the reason for the synagogue ruler's indignation. So Luke describes these thoughts in a clear example of interpretive use.

A more indirect example occurs at Luke 23:55–56:

> The women who had come with him from Galilee followed and saw the tomb and how his body was laid. Then they returned and prepared spices and ointments. On the Sabbath they rested according to the commandment. [καὶ τὸ μὲν σάββατον ἡσύχασαν κατὰ τὴν ἐντολήν.]

The narrative event line ends with the their resting on the σάββατον 'Sabbath'. The narrative could have ended after *rested*, since Jewish readers would have inferred the reason why the women rested rather than returning to the tomb. Many Gentile readers, however, would have been unable to infer the reason. They might have thought it odd that the women waited another day, during which Jesus' body would have begun to decompose, before preparing it for burial. They might have concluded that the women were negligent or foolish. So Luke interprets the women's rationale for his audience, showing that their rest stemmed from religious obedience.

A comparison of Luke with Matthew and Mark shows that Luke often reports thoughts, paraphrases utterances, and explicates Jewish assumptions for his authorial audience, which included Gentiles, whereas Matthew usually leaves these things implicit for his authorial audience, which is Jewish and could access this information without his help. In a sense, Matthew envisages his authorial audience as astute Jewish observers who can listen in on the reported speech events and figure them out for themselves, whereas Luke envisages his authorial audience as somewhat less astute Gentile observers for whom he must elucidate some of the narrated speech events.

Hermeneutical implications

A Bible teacher could simply teach people the meaning and significance of a passage, based on prior research, and this would be appropriate for children, seekers, and biblical illiterates. But

as people grow in their biblical literacy and their ability to interpret the Bible, *it would seem more helpful if expositors took the role of observer-interpreters who elucidate the concepts and context for more naïve observers so they can reconstruct the authorial meaning for themselves*. Similarly for translation: *if translators want to fulfil their task of making authorial meaning accessible to modern readers, they would do well to annotate their translations with the conceptual and contextual information their readers need most*. In Chapter 7 I will discuss in greater detail the implications of this for Bible exposition, translation, and commentary.

4.7. Exegetes as astute observers

Utterances provide clues to a speaker's meaning, but the addressee must infer the intended senses of words, the intended references of noun phrases, and the intended implicatures of statements. These inferences depend on the context, and the context depends on the cognitive environment of the addressees, meaning their culture, worldview, knowledge, personal situation, and current mental state. Observers, however, do not have the same cognitive environment. So when observers listen in on a speech event, there may be a **contextual gap** between them and the addressee due to their different cognitive environments. This prevents them from automatically accessing the context of the addressees and requires them to figure out the intended context as best they can.

Sperber gives the example of a bystander hearing someone say 'It's late' at an airport.[39] The bystander can understand the meanings of the words, but what is the speaker's meaning? Is it the time that is late, or the approach of spring, or the clock, or an announcement, or an airplane? If an airplane, is it late arriving or late departing? The contextual gap between the addressee and the observer results in a failure to comprehend, sometimes called **zero understanding**, because the addressee or observer gets **zero meaning** from it. A person's automatic instinct, however, is to find contextual assumptions which can make sense of the utterance. So a bystander will usually try to supply a context from his or her own cognitive environment. This often results in misunderstanding, also called **wrong understanding** or **wrong meaning**.

The schema below represents a communication situation in which a bystander has a different cognitive environment and therefore selects a context unintended by the speaker and therefore infers a different meaning from that intended.

[39] Sperber, 'How Do We Communicate?'.

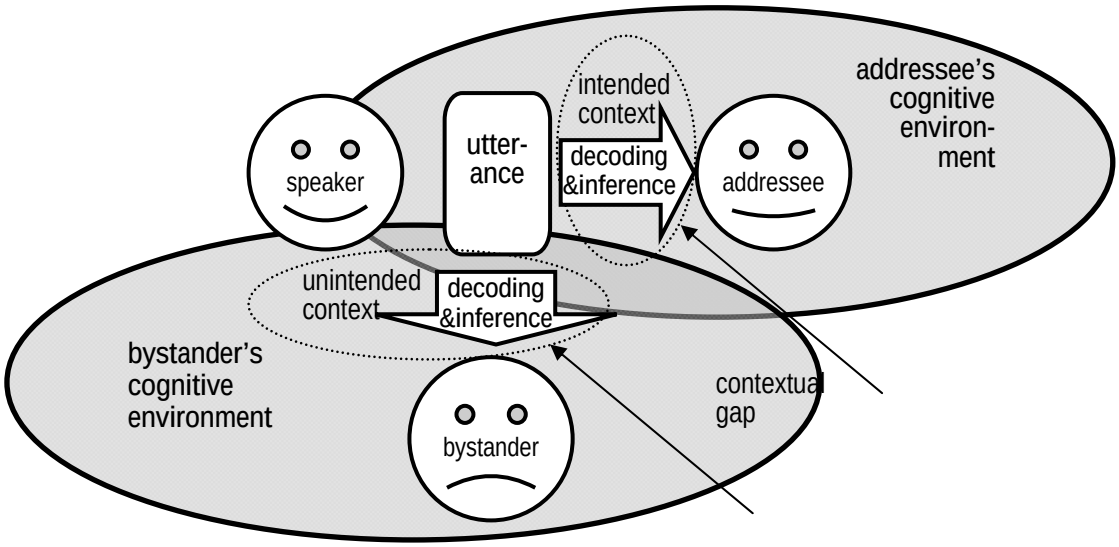

Figure 4-E A bystander's use of an unintended context to interpret a communication

When astute observers listen to a conversation in which the cognitive environment of the addressee is quite different from their own, they construct a mental model of the context available to the addressee and interpret the speaker's remarks to her in accord with that model rather than in accord with their own cognitive environment. This happens all the time, from mothers who intuit how their young children might interpret something to long-term missionaries who understand conversations among people of a different language and culture. They are engaging in a natural form of exegesis, which could be defined as follows:

(3) Natural exegesis is the controlled cognitive process by which an astute observer of a speech event constructs a contextual model of relevant aspects of the addressee's cognitive environment and uses it to figure out what the speaker most likely expected his addressees to understand from his utterance to them within that context.

Observers of normal conversations do this routinely, but cross-cultural exegesis requires greater detachment and greater knowledge of the extracultural cognitive environment.

Hermeneutical implications

Some literary scholars talk about the reader 'joining the authorial audience' and becoming an authorial reader, meaning 'acceptance of the author's invitation to read in a particular socially constituted way that is shared by the author and his or her expected readers'.[40] According to Jeffrey Wilhelm, **authorial reading** seeks to answer the question, '*What does this text mean to the audience for which it was written* (one that understands the concepts and codings presented) *and how do we feel about that?*'[41]

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[40] Rabinowitz, *Reading*, 22.

[41] Wilhelm, *Action Strategies for Deepening Comprehension* (New York: Scholastic, 2002), 138.

Although teachers and literary scholars have advocated this approach for reading modern literature, a number of biblical interpreters have advocated it for reading Scripture, and this presents a number of challenges. While advocating this approach for the Bible, Warren Carter describes at some length the requirements, such as extensive knowledge of the biblical background and culture and some difficult cross-cultural role-playing, in which the reader 'goes along' with the beliefs and experiences assumed for the authorial audience.[42] Resseguie describes the tasks of authorial reading for the fourth Gospel (numbers original):

1) The authorial reader recognizes the beliefs, ideological perspectives, engagements, and prejudices of the "corrupted" reader that the author has in mind, and thus is in a position to interpret correctly the Fourth Gospel.
2) The reader shares the same literary, cultural and social conventions of the authorial audience; and completely understands how these conventions operate. This reader knows and understands the "repertoire" of the text, which "may be in the form of references to earlier works, or to social and historical norms, or to the whole culture from which the text has emerged."
3) The reader interacts with the text and is able to fill in the gaps or indeterminacies within the text. This filling-in process, however, is not a subjective task of the reader; rather the reader fills in the gaps the way the author imagines those gaps should be filled in. In other words, the reader does not create meaning: he or she discovers what the author intended to be found in the first place.[43]

Resseguie is on the right track with what is obviously an historicist approach, but one could question whether it is sufficient for biblical interpretation. The literary model he is following was designed for people reading fairly recent literature that was written in their own language and for a very similar culture. Such people can project their own conceptual system onto a model of the authorial audience and make a few adjustments for relevant differences. This is what speakers do when they are talking to others in their culture: they project their own cognitive environment onto a model of their addressee and then make adjustments for known differences. This does not work well, however, for Australians reading seventeenth century Chinese poetry, because the cultural gap is too large to successfully pretend they are seventeenth-century Chinese 'authorial readers'. If an Australian wants to understand seventeenth-century Chinese poetry, or if a Chinaman wants to understand ninth-century BC Hebrew poetry, he needs to deal with the serious contextual gap by studying to become an astute observer who can reconstruct how the authorial audience would have interpreted that poetry. Or he needs to find an expert who has done that and who can interpret it to him, perhaps in a thoroughly annotated translation of the text.

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[42] Carter, *Matthew: Storyteller, Interpreter, Evangelist* (Peabody, MA: Hendrickson, 2004), chap. 1.

[43] Resseguie, *The Strange Gospel* (Leiden and Boston: Brill, 2001). The term *corrupted* is from Rabinowitz, 1987, as is much of the wording in point (1). The other embedded quotes are from Iser, 1978.

The exegetical expert is in the position of an astute observer, and he elucidates the text for naïve observers, but they remain observers who cannot safely assume they have 'joined the authorial audience' or 'fused their horizons' with them. They need to work with a distinct model of the **authorial context**, meaning the model envisaged by the author for his audience. They can then reconstruct how that audience would have understood the author within that context. We can describe this perhaps as **authorial reading**, but only if it is understood that it is reconstructive exegesis, and that it models how the authorial audience would most likely have understood the author within the authorial context. We will see in Chapter 5 that the construction and use of context models is a normal part of the cognitive processes involved in communication, including comprehension and interpretation, and that most sentences in a text provide clues to both the authorial context and the authorial intent, clues that are usually processed in the unconscious.

Hermeneutical implication

Someone might object, arguing that since the Bible is for all people, the biblical authors addressed their remarks to all readers, who are then addressees rather than observers. It will be seen in later chapters, however, that every assertive utterance is contextualized to an envisaged context specific to the addressees. So it really is necessary for authors to contextualize for the context of an authorial audience, even if they are inspired by God. Suppose for the sake of argument that an ancient prophet had the desire and ability to contextualize his message for a context in a future cognitive environment. He would have had to then face the fact that there are literally thousands of cultures and languages in the world, and they are constantly changing. He would have had to select a specific future time and a particular culture and situation in which to contextualize his message, as well as select people with particular states of knowledge. Even if there were possible, it would be less helpful to everyone else than simply using his own cognitive environment, which later generations are able to study. So even if an author is hoping his work will be used by future generations, he must nevertheless contextualize his text for some particular authorial audience, leaving future audiences with the task of reconstructing that context if they want to fully understand what was being communicated. Even English literature of past centuries requires some contextual reconstruction to be comprehensible. That is why Shakespearean professor Robert Hume engages in 'archaeo-historicist' reconstruction of the social and conceptual contexts of Shakespeare's literature, so he can help readers today understand Shakespeare's art and wit.[44] The same applies much more to ancient literature, including the Bible. As Max Turner notes,

[44] See Hume, *Reconstructing Contexts*.

the 'discourse meaning depends not merely on text but greatly on the invoked presupposition pools'.[45]

Hermeneutical points

A sociocognitive framework allows us to characterize the task of biblical exegesis as follows:

- Modern-day readers of the Bible are not the direct addressees of any biblical author because they do not share the same cognitive environment as his authorial audience. On the contrary, they are like overhearers listening to a distant conversation and trying to figure out what is being communicated. Their natural tendency is to project their own cognitive environment onto the original addressees and then infer a different set of explicatures and implicatures, resulting in a misconstrual of the author's intentions.
- The skilled exegete functions as an astute observer of distant speech events. If she were part of the authorial audience, she would not need to exegete. Her role is to be an competent observer who suppresses her own automatic response to the text; builds a valid mental model of the authorial audience and its context, including relevant aspects of their conceptual system; and reconstructs the way they would most likely have inferred the author's informative intentions. In other words, she reconstructs the cognitive effects the author's text would have had on the authorial audience in their context. Exegesis therefore involves recovery of the authorial intent by reconstructing how the authorial audience would most likely have understood the authorial intent within the authorial context.
- The lay Bible reader is a naïve observer and needs the help of an exegete. Just as a naïve observer can be aided by an astute observer-interpreter who explains the background and meaning of an overheard conversation, so readers of the Bible can be aided by expositors, translators, and other interpreters who help them form a valid and comprehensible model of the original communicative event, including concepts and assumptions of the authorial context. Such help often takes the form of notes, commentary, translation, and expository teaching.

To give substance and support to these points, the next chapter will examine in some detail the subconscious processes of comprehension that interlocutors tacitly expect each other's cognitive system to follow in order to recognize their informative intentions. It is followed by an exegetical procedure which exegetes can follow to consciously mimic these processes and thereby attempt an historical reconstruction of the original communication and its evident informative intent.

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[45] Turner, 'Hermeneutics', 69. Turner is using the term *presupposition* in its ordinary sense of prior assumptions that bear on one's interpretation of a text rather than in its technical sense in formal logic of a proposition presupposed by a statement, even if that statement is negated, or its use in information structure for information known to the addressee. His discussion of 'presupposition pool' highlights the role that the cognitive environment plays in supplying concepts and premises for inferring the author's meaning.

4.8. Expositors and translators as observer-interpreters

Gordon Fee emphasizes the expository side of hermeneutics. For him, hermeneutics is first and foremost about the theory and practice of discovering what a text *means* for people now, in the present, whereas exegesis is a prerequisite stage of that task, namely, the theory and practice of discovering what the text *meant* to people in the past.[46] It is clear in any case that a hermeneutic model should be able to help expositors interpret the meaning and significance of a text to contemporary audiences. The interpreter might follow the form of the original utterance, providing what Deirdre Wilson calls **metalinguistic resemblance**,[47] or she could paraphrase the explicit content, resulting in an **explicit resemblance** to the statements, or she could include implicit information as well, providing more **meaning resemblance**.[48] She could also **summarize**.

Genesis provides us with an example of a speech event being paraphrased and later summarized. First the narrator reports the words of Joseph, viceroy of Egypt, to ten Hebrews who were his brothers, although they did not realize it:

> Do this and you will live, for I fear God: if you are honest men, let one of your brothers remain confined in your prison, and let the rest go and carry grain for the famine of your households, and bring your youngest brother to me; so your words will be verified, and you shall not die. (Gen 42:18–20)

Of course, this report may not carry the exact words that Joseph used, and he was in any case speaking Egyptian rather than Hebrew. Thirteen verses later, one of the brothers interprets the speech event to their father by paraphrasing the explicit content and some of the implicit content:

> Then the man, the lord of the land, said to us, "By this I shall know that you are honest men: leave one of your brothers with me, and take grain for the famine of your households, and go your way. Bring your youngest brother to me; then I shall know that you are not spies but honest men, and I will deliver to you your brother, and you shall trade in the land." (Gen 42:33–34)

After a few more verses, Judah summarizes the same speech event:

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[46] See Fee, *Gospel and Spirit: Issues in New Testament Hermeneutics* (Peabody, MA: Hendrickson, 1991), especially p. 4. n. 5. See also Osborne, *The Hermeneutical Spiral: A Comprehensive Introduction to Biblical Interpretation* (Downers Grove, IL: InterVarsity Press, 1991), 6.

[47] Wilson, 'Metarepresentation'.

[48] Wilson calls this 'interpretive resemblance' in Wilson, 'Metarepresentation'. This term can be confusing, however, because these kinds of resemblance are all interpretations of a thought and have some kind of resemblance to a thought. This criticism is also made in Stanley, 'Review of *Thoughts and Utterances*, by Robyn Carston', *Mind and Language*, 20/3 (2005), 364–368. Gutt and Carston use the term *interpretive resemblance* in a different way, namely for the resemblance in (a), (b), (c) and (d); see Carston, *Thoughts and Utterances: The Pragmatics of Explicit Communication* (Oxford Blackwell, 2002), 158; Gutt, *Translation and Relevance: Cognition and Context* (2nd edn.; Manchester: St. Jerome Publishing, 2000), 36–37.

> The man solemnly warned us, saying, "You shall not see my face, unless your brother is with you". (Gen 43:3)

Since he is summarizing, Judah mentions little of the semantic content of the original utterance, yet he explicates both the implicit illocutionary force (warning) and the implicated conclusion (You will gain an audience with me only if you bring your brother). This is not unusual. Studies have shown that when people give summary paraphrases of what someone said, they generally give the most important information, including the implicated conclusions.[49] What is strange for Westerners is that speakers of Ancient Hebrew use direct speech forms when paraphrasing and summarizing.

Nicolle and Clark describe psycholinguistic experiments in which people were given a list of statements and were asked to choose the most equivalent paraphrase for each one from a list of multiple choices. Some choices, which they called **explicature paraphrases**, had explicit resemblance, in that they encoded the explicit content in new ways. Other choices, which they called **implicature paraphrases**, had meaning resemblance, in that they encoded both the explicit and implicit content of the original statement. Nicolle and Clark report that in the large majority of cases, the subjects chose the implicature paraphrases over the explicature paraphrases as being the most equivalent statements.[50] In other words, they identify the meaning of an utterance as including its implicatures.

Hermeneutical implications

It should be evident that expositors and translators are observer-interpreters. Like observers, they are not the author's direct addressees, but rather they listen in on a speech event between the author and his addressees and exegete the author's meaning. Like interpreters, they interpret the author's meaning to others, often in a different language, in a way that is communicative within their own cognitive environment. Expositors also help their audience infer the significance of that meaning for themselves. Translators do so more sparingly, if at all, through the judicious use of footnotes and front matter.

The biblical authors are engaged in interpretive use themselves whenever they report what others have said. It is not always clear, however, what kind of resemblance they are using. The conventions of ancient Greek and Hebrew allowed one to paraphrase and summarize utterances while retaining the form of direct speech, i.e. using first- and second-person forms.[51] A clear

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[49] For discussion and citation of studies, see Nicolle, 'On the Translation of Implicit Information: Experimental Evidence and Further Considerations', *Notes on Translation,* 13/3 (1999), 1–12.

[50] See Nicolle and Clark, 'Experimental Pragmatics and What is Said: A Response to Gibbs and Moise', *Cognition,* 69/3 (1999), 337–354; Nicolle, 'Implicit Information'.

[51] For discussion within the context of Hebrew, see Miller, *The Representation of Speech in Biblical Hebrew Narrative: A Linguistic Analysis* (Harvard Semitic Monographs, 55; Atlanta: Scholars Press, 1996).

example is afforded by the narration of John the Baptist's remark regarding the greater worthiness of Jesus. Mark narrates this in Mark 1:7 as follows:

> οὗ οὐκ εἰμὶ ἱκανὸς κύψας λῦσαι τὸν ἱμάντα τῶν ὑποδημάτων αὐτοῦ
> the strap of whose sandals I am not worthy to stoop down and untie

When Luke reports this in Luke 3:16, he rewords it a bit:

> οὗ οὐκ εἰμὶ ἱκανὸς λῦσαι τὸν ἱμάντα τῶν ὑποδημάτων αὐτοῦ
> the sandals of whose feet I am not worthy to untie

John has the same wording in 1:27. But when Luke repeats the saying in Act 13:25, he words it a bit differently:

> οὗ οὐκ εἰμὶ ἄξιος τὸ ὑπόδημα τῶν ποδῶν λῦσαι
> the strap of whose sandals I am not worthy to untie

And Matthew cites it differently as well in 3:11. Yet all of them use first-person speech. The convention in English, however, is to use first- and second-person forms only in direct quotations, i.e. when quoting the person's exact words. As a result, English Bible translators usually enclose direct speech forms with quotation marks as if it were an exact quotation of the original words, even if they are summaries or paraphrases. Their readers then assume, mistakenly, that the original author reported the speech with a metalinguistic resemblance to the original-language wording, when in fact he might have used a paraphrase or a summary.

If Bible translators are going to enclose direct speech with inverted commas, then they might do well to alert their readers in the introduction that the 'quoted' speech is not necessarily an exact quotation but could be the gist of what the person said. Translated speeches are in any case never the exact words of the speaker.

The task of the expositor, then, is first to exegete the text by reconstructing the original speech event as well as possible, including the author's conceptual system, the context of his authorial audience, and the authorial intent implied by the text in that context. Then the expositor can either recommunicate that intent directly to others or else facilitate their recovery of it themselves by helping them exegete the text. In the first case, namely direct communication of the author's meaning, the expositor faces the problem that his audience live in a cognitive environment that is significantly different from the environment of the original audience. Because of this their automatic inferential processes will assign senses and references readily known to them and draw on implicit premises from their own context rather than from the one envisaged by the author. The expositor may therefore need to recontextualize and rephrase the message in order to communicate the speaker's meaning to his contemporary audience within their own environment. This is commonly done in Bible storybooks for children and in paraphrastic retellings by preachers. In the second case, the expositor facilitates exegesis by his audience.

Hermeneutical points

- People normally identify meaning with the informative intentions of the speaker or author, and they recognize implicit information implicated by context as part of that meaning.
- An expositor can help his audience to exegete authorial intent by noting and explaining unfamiliar concepts, schemata, and assumptions of the original context and then helping them discover what his text would have meant to his audience in that context.

4.9. A brief comparison of hermeneutical models of participant structure

Demeterio reflects many hermeneuts when he reduces the prevailing hermeneutical theories to one model of interpretation consisting of three structural components: the interpreter, the text (or other object of interpretation), and the meaning or goal of the interpretive act. He represents this graphically as follows:[52]

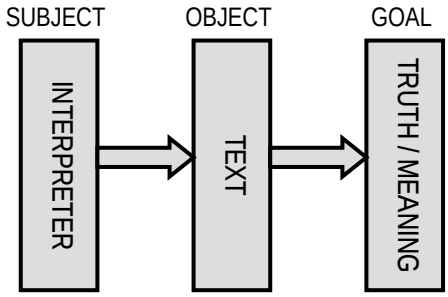

Figure 4-F Demeterio's cross-theory three-component model of interpretation

He then reduces the main differences in hermeneutical theories to differences in their conceptions of these three components, from which differences arise in the interrelationships of these components.

Within evangelical biblical hermeneutics, a different model is commonly used to describe interpretation, namely a triad of author, text, and reader. Theories then differ with regard to which one or two of these are most determinant for meaning.[53] This tripartite model is represented by Osborne as below:[54]

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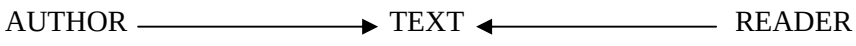
[52] See Demeterio, 'Introduction to Hermeneutics', *Diwatao*, 1/1 (2001), 1–9.

[53] See Osborne, *Spiral*, appendix 1; Green, 'The Challenge of Hearing the New Testament', in Joel B. Green (ed.), *Hearing the New Testament: Strategies for Interpretation* (Grand Rapids: Eerdmans, 1995), 1–9; Vanhoozer, *Meaning in this Text*, passim; Stein, 'The Benefits of an Author-Oriented Approach to Hermeneutics', *Journal of the Evangelical Theological Society*, 44/3 (2001), 451–466; Tate, *Biblical Interpretation: An Integrated Approach* (3rd edn.; Peabody, MA: Hendrickson, 2008), passim. N. T. Wright adds a fourth element, namely the 'event' to which reference is made; see Wright, *The New Testament and the People of God*, chap. 3.

[54] Osborne, *Spiral*, 366.



The author 'produces' a text while a reader 'studies' a text.

Figure 4-H Osborne's cross-theory model of textual interpretation

Thus the primary distinction in models of interpretation has been between author-centred, text-centred, and reader-centred models of interpretation or some combination of them.

Author-centred approaches are focused on the 'world of the author'. For Schleiermacher and Dilthey this included attempts to get into the mind of the author. For historical-critical approaches this included speculation about the prehistory of a text, the likely *sitz in leben* of its composition or redaction, etc. Conservative Bible scholars continue to practice exegesis centred on the recovery of authorial meaning, but postmodern theories of hermeneutics have given priority to text-centred and reader-centred approaches, and this is reflected in many textbooks on interpretation.[55] Text-centred models focus on the literary structure of the text. They usually ignore the cognitive, social, and communicative aspects of communication, since these operate in the unconscious mind, and assume the text provides conceptual and referential meaning by itself, as well as its own 'world' or context. Reader-centred approaches deny this and note that texts do not have concepts, contexts, references, and informational content until readers interpret them in that way. On the other hand, most reader-centred approaches let the reader interpret the text automatically rather than reconstructing how the authorial audience would have done it.

Today it is increasingly recognized that the key elements 'behind the text' are found in the cultural, historical, ideological, and lexico-semantic background,[56] and most specifically in the 'shared presupposition pool'[57] of the author and his envisaged audience. In the next chapter we will see that the presuppositions do not need to be shared at all, and that what matters is the authorial context envisaged for the authorial audience. The role of mental models is gaining recognition within social psychology and communication, and literary critics are recognizing it under the name of authorial audience.

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[55] See for example Tate, *Biblical Interpretation*, 1–6.

[56] Ibid., Unit II and Appendix I.

[57] See Cotterell and Turner, *Linguistics*, §§3.3, 8.1. and especially Turner, 'Hermeneutics'. The term *presupposition pool* had been used by Theo Vennemann in Vennemann, 'Topics, Sentence Accent, Ellipsis: A Proposal for their Formal Treatment', in Edward L Keenan (ed.), *Formal Semantics of Natural Language* (Cambridge: Cambridge University Press, 1975), 313–328. He used it for logical presuppositions underlying definite references and the like. Cotterell and Turner borrowed the term and extended it to cover the assumptions brought to bear in communication, particularly implicated assumptions of their 'shared presupposition pool'. Sperber and Wilson developed the same idea in Sperber and Wilson, *Relevance: Communication & Cognition* (1st edn.; Oxford: Blackwell, 1986). but called them 'contextual assumptions' of the 'shared cognitive environment'.

In conclusion, a sociocognitive framework allows us to construct a communicative model of hermeneutics that looks more like the following, where the reader is actually an observer-interpreter who is unknown to the author and external to the authorial audience and context.

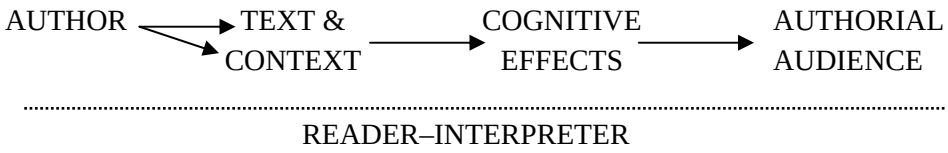

Figure 4-I Reconstructive model of the interpretation of a speech event

Explanation: The author identifies an authorial audience and a model context for them, then produces a text that can interact inferentially with that context to produce intended cognitive effects on that audience, those effects being the authorial intent inferred by the audience. The context includes a model of what the audience already knows about the author, his concepts and informative goals. The reader is an interpreter who produces an historical reconstruction of the whole speech event or works with a model of it that an exegete has elaborated. The principal goal is reconstruction of the likely cognitive effects on the authorial audience.

5. Hermeneutics and the Social Cognition of Communicative Events

> Engaging in and interpreting communication
> is at the heart of what we are doing when we read the Bible.
> — Jeannine Brown, 2007[1]

> The "text" of Philemon (like the text of any utterance)
> is simply the tip of the iceberg of Paul's discourse meaning.
> A nuanced understanding of the "discourse meaning" …
> demands a wide-ranging and multidisciplined analysis.
> — Max Turner[2]

We come now to the heart of the hermeneutical issue: How does a speaker make his informative intent evident to his addressee, and how does his addressee recognize that intent? In other words, how is information communicated between people? A naturalized hermeneutic must present an empirical answer to these descriptive questions before it can propose a prescriptive methodology for reconstructing past communications. I begin this chapter with a brief but critical review of antipsychologistic models of communication that continue to influence hermeneutics, after which I discuss sociocognitive processes involved in communication. In the chapter after this I present details of the comprehension process, following a relevance-theoretic model, and how interpreters can reconstruct it to exegete the information conveyed in past communicative events.

5.1. Message, code, and processes for encoding and decoding

In Saussure's model of communication, concepts are viewed as fixed in meaning and fixed in relation to lexemes, to which they are bound arbitrarily one-to-one as constituents of linguistic signs. So when the addressee hears a lexeme, it evokes in her mind the concept that belongs to the same linguistic sign as that lexeme. Saussure intended this description to apply only to *langue*, meaning the internal organization of language, and not to *parole*, meaning the way language is used to communicate. Nevertheless, people applied his model to communication, with the idea that the meaning that was communicated was carried entirely by the signs, without reference to variations of cognitive context, conceptualization, or mental modelling, all of which were inadmissible to them as psychologisms. Language was then viewed as a kind of

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[1] Brown, *Scripture as Communication: Introducing Biblical Hermeneutics* (Grand Rapids: Baker Academic, 2007), 13.

[2] Turner, 'Hermeneutics', 49, 51.

code in which concepts and propositions were encoded into speech as lexemes and sentences, and these were then decoded from speech back into concepts and propositions. The content of the communication was then portrayed as stable and consistent with regard to the signs used and limited to what the signs could encode. In hermeneutics, this view fostered a textual-sense model of meaning and interpretation.

In addition to this code model of communication, the metaphor of a conduit was commonly used (in English) to describe communicative acts.[3] In the conduit model, thoughts are said to be packaged into words and sentences and then sent along a conduit to another person. Shannon and Weaver refined this conduit model on analogy with the process of encoding audio speech into a telephone signal and back into audio. So their model of communication is called both the **conduit model** and the **code model** of communication.[4] They presented the key elements of this model in a diagram like that below:[5]

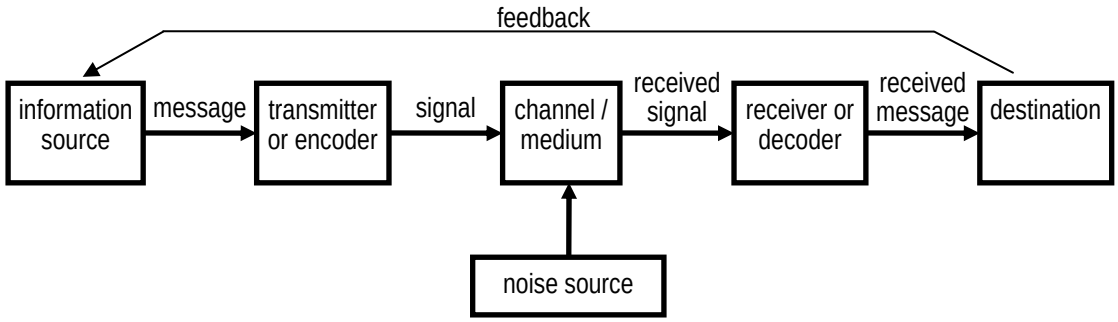

Figure 5-A The Shannon-Weaver code model of communication

In this model, information travels along a conduit from a source to a destination. Along the way it gets encoded into a linguistic signal, it suffers interference from noise, and it is decoded back into information. Noise includes anything that corrupts or disrupts the message, whether actual noise or differences in assumptions and culture. Feedback from the addressee to the speaker can indicate to the speaker whether the message was received as intended or was distorted in transit.

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[3] For examples from common English expressions, see Reddy, 'The Conduit Metaphor: A Case of Frame Conflict in our Language about Language', in Andrew Ortony (ed.), *Metaphor and Thought* (2nd edn.; Cambridge: Cambridge University Press, 1993), 164–201.

[4] Shannon and Weaver, *The Mathematical Theory of Communication* (Urbana, Illinois: University of Illinois Press, 1949).

[5] Shannon and Weaver, *Mathematical Theory*, 9.

The Shannon-Weaver model received widespread acceptance in a variety of academic domains, including linguistics[6] and hermeneutics. Robert Stein, for example, introduced an article on hermeneutics by presenting a code model of communication:

> In all communication three distinct components must be present. If any one of these components is missing, communication is not possible. These components are: the author, the text, and the reader. Linguists tend to use the terms: the encoder, the code, and the decoder. Still another set of terms that can be used is: the sender, the message, and the receiver.[7]

This code model promoted the view that the content of an author's communication is fully encoded in his text, and this view supported a text-centred hermeneutic.

Even with the improvements that various scholars made to the conduit model of communication, it proved to be insufficient to account for many observable features of communication, such as the communication of implicit information and the resolution of references and polysemous significations. Reddy argues that the conduit model itself proved to be misleading, with or without codes.[8] According to George Miller, it was frustration with his 'attempts to apply Claude Shannon's theory of information to psychology' and its inability to 'shed much light on the psychological processes' that led him in 1956 to reject behaviourism and to found the new academic field of cognitive science, thereby initiating the cognitive revolution.[9] Yet there are interpreters and translators who are still using the code model.

Hermeneutical implications

Since historical exegesis is always a cross-cultural activity, and exposition and translation are often cross-cultural activities, a hermeneutic cannot be adequate unless it can account for successful cross-cultural communication. The code model of communication fails to do this. It also fails to account for the roles of context and inference in the communication of a speaker's intended message. It is therefore inadequate as a model for hermeneutics.

5.2. Information structure, context models, and mindreading

A speaker maintains a mental model of relevant aspects of his addressee's beliefs and uses it as the context for his utterances to the addressee. As a result, his utterances reflect both his own beliefs and the corresponding beliefs that he attributes to his addressee in his contextual model. This is such a core element of communication that the languages of the world include

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[6] See, for example, Lyons, *Semantics 1*, 36ff. As late as 1988 the pragmatist Stephen Levinson was calling the Shannon-Weaver model the accepted 'commonsense' model of communication (Levinson, 'Proper Footing', 166.).

[7] Stein, 'Author-Oriented Approach', 451.

[8] Reddy, 'The Conduit Metaphor'.

[9] Miller, 'Cognitive Revolution', 142. Miller adds that he 'was unable to extend [the code model] beyond Shannon's own analysis of letter sequences in written texts.'

linguistics means for this simultaneous representation of both the speaker's belief and the corresponding belief of the addressee, as modelled by the speaker. This feature is often described as a statement's **information structure**. In other words, almost every statement reflects the speaker's (implied) beliefs as well as beliefs attributed by him to the addressee in his model of the addressee's cognitive environment. Following the lead of Sperber and Wilson, I will use the term **context** for those beliefs attributed by the speaker to his addressee which are relevant to what is being communicated.[10] This should not be confused with the co-text, although the co-text can be a source of contextual beliefs.

Consider for example the sentence 'Shakespeare wrote *Pericles*', where *Pericles* is the name of a play and hence italicized. (The authorship of *Pericles* is actually disputed.) This sentence can be articulated in English with different intonation contours, depending on what question or uncertainty the speaker is addressing. If the addressee is uncertain or mistaken with regard to who wrote *Pericles*, asking perhaps 'Who wrote *Pericles*?', then the speaker intones '<u>Shakespeare</u> wrote *Pericles*' with focal stress on the word *Shakespeare*. This intonation contour indicates the following:

addressee's contextual belief:	Someone wrote *Pericles*.
speaker's asserted belief:	Shakespeare wrote *Pericles*.

In English the speaker could also use a cleft construction and say 'It was Shakespeare who wrote *Pericles*', with the same import. In many other languages, the information structure of such a statement would be marked in the word order or the sentence morphology or both.

Thus markers of information structure allow the speaker to express two related beliefs simultaneously. Lambrecht calls them the **pragmatic presupposition** and the **pragmatic assertion**, although the word *pragmatic* is usually omitted in practice.[11] Lambrecht defines the pragmatic presupposition as 'the set of propositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time the sentence is uttered'.[12] Prince describes these presuppositions as the speaker's 'hypotheses' regarding the addressee's 'belief-state'.[13] We can say the presupposition is drawn from the

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[10] See Sperber and Wilson, *Relevance*, 15. Their usage is discussed further below. By their definition, however, the beliefs in a context are held by both the speaker and the addressee. I will argue against that.

[11] See Lambrecht, *Information Structure*, 50. Other terms include *given information* and *new information*, as in Dahl, 'What is New Information?', in Nils Erk Enkvist and Viljo Kohonen (eds.), *Approaches to Word Order* (Åbo: Åbo Akademi, 1976), 37–50; Prince, 'Towards a Taxonomy of Given/New Information', in Peter Cole (ed.), *Radical pragmatics* (New York: Academic Press, 1981), 223–256; Chafe, 'Cognitive Constraints on Information Flow', in R. S. Tomlin (ed.), *Coherence and Grouping in Discourse* (Amsterdam: Benjamins, 1987), 21–51.

[12] Lambrecht, *Information Structure*, 52.

[13] Prince, 'Given/New Information', 233. Fauconnier treats pragmatic presuppositions as elements of a 'mental space', which in this case represents another person's beliefs; in that case the information structure represents a 'conceptual blend' of that mental space with the speaker's own 'base' space. See

context, meaning the speaker's model of relevant assumptions in the addressee's cognitive environment. In textual communications the addressee is the authorial audience, in which case the author draws his presuppositions from his model of the authorial audience's context.

The assertion and presupposition[14] are thus two related propositions expressed at the same time, which Lambrecht describes as follows:

> In making an assertion, a speaker expresses a pragmatically structured proposition, i.e. a proposition which reflects not only a state of affairs but also the speaker's assumptions about the state of mind of the hearer at the time of utterance, by indicating what is assumed to be already given and what is assumed to be new.[15]

In other words, a presupposition is a contextual assumption in the speaker's model of the addressee's beliefs which he evokes as context for his assertion. So it is part of his **contextual model** for the addressee. In the case of an author, we can say *the pragmatic presuppositions of his sentences constitute much of the authorial context he constructed for his authorial audience. His assertions constitute much of the explicit information he conveyed with respect to those presuppositions, generally to change them. Together they constitute his explicit meaning.*

In addition to information structure, Barker and Givón list a variety of grammatical devices that reflect the speaker's use of a model of the addressee's context. They conclude:

> As speakers use grammar to communicate, they rely, constantly and systematically, on their own constantly shifting mental models of the hearer's belief and intention states. At the same time, they manipulate the hearer's construction of *their* constantly shifting mental representations.[16]

Goldman presents evidence that the mind models the relevant aspects of the other person's mental state by using the brain's mirror neuron system. In other words, a 'surrogate' of the other person's inferred mental state is temporarily 'mirrored' in the neuronal system of one's own brain.[17] It might be noted that people on the autism spectrum have a neural deficit that impairs the automatic hypothesizing of such models, a condition known as **mindblindness**, and

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Fauconnier, *Mappings in Thought and Language* (Cambridge: Cambridge University Press, 1997), 60–64; Fauconnier, 'Pragmatics and Cognitive Linguistics', in Lawrence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2004), 657–674; Fauconnier and Turner, *Conceptual Blending*.

[14] There can be other presuppositions as well. Lambrecht (Lambrecht, *Information Structure*, 53.) notes that 'the use of the definite article in the noun phrase *the woman who moved in downstairs* … evokes the presupposition that the addressee can identify the individual designated by that noun phrase'.

[15] Lambrecht, *Information Structure*, 52–53.

[16] Barker and Givón, 'Representation of the Interlocutor's Mind during Conversation', in Bertram F. Malle and Sara D. Hodges (eds.), *Other Minds: How Humans Bridge the Divide Between Self and Others* (New York: Guilford Press, 2005), 223–238, 224.

[17] See Goldman, *Simulating Minds: The Philosophy, Psychology, and Neuroscience of Mindreading* (Oxford: Oxford University Press, 2006), 132–140.

as a result they have difficulty communicating.[18] Cross-cultural mindreading is difficult for almost everyone, because it requires one to hypothesize a mental model based on a different culture. In the case of exegesis and translation, that difficulty is further magnified by the cultural, historical, and linguistic distance. The grammatical systems of diverse languages differ in how they indicate information structure, they have in common the ability to do so, i.e. to enable speakers to simultaneously express both presupposition and assertion. One can conclude from all this that the process of making contextual models of the addressee's beliefs and encoding them as presuppositions is a basic component of communication and reflects a common faculty of human cognition.

Givón has devoted a book, *Context as Other Minds*, to the thesis that the 'communicative context' does not consist of a set of shared beliefs but of 'mental representations of the interlocutor's current state of belief and intention'.[19] In other words, Givón supports the claim that the speaker works with a mental model of his addressee's current beliefs that does not need to be shared:

> Purposive communication is the use of some behaviours … as a dedicated signalling system whose purpose is to induce others to comprehend what is in one's mind. Not only to comprehend, but hopefully also to sprint into relevant action. Such behaviour is inconceivable without a running on-line mental model, however subconscious, of the interlocutor's rapidly-shifting intentional and epistemic states.[20]

This view represents a change from his previous position that the context derives from an 'overlap between [their] two points of view'.[21]

Hermeneutical implication

Information structure is marked quite pervasively in the intonation prosodies of spoken English sentences, but this is rarely indicated in written forms of the language, and there are few syntactic and morphological markers, mainly the use of subject position for topics. This absence of written indicators leaves typical English readers with little awareness of information structure. In Biblical Hebrew and Biblical Greek, on the other hand, there are special particles and word order permutations which mark information structure.[22] The problem is that English speakers who learn Hebrew and Greek from philology simply ignore the information structure

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[18] See Baron-Cohen, *Mindblindness* (Learning, Development, and Conceptual Change; Cambridge, MA, and London: MIT Press, 1997); Baron-Cohen, 'Empathizing System'.

[19] Givón, *Context as Other Minds*, 101.

[20] Ibid., 120.

[21] Givón, *Mind, Code and Context: Essays in Pragmatics* (London: Lawrence Erlbaum Associates, 1989), 365.

[22] See Levinsohn, 'Discourse Study'; Heimerdinger, *Topic, Focus and Foreground*; Levinsohn, *Discourse Features of New Testament Greek*; Kwong, *The Word Order of the Gospel of Luke: Its Foregrounded Messages* (London & New York: T&T Clark, 2005); Lunn, *Word-order*.

encoded in permutations of word order, because they lack the conceptual tools needed to deal with it. They are like the student of Latin of whom Devine wrote: 'Latin texts for him are a sort of word salad that has to be untossed before it can be translated.'[23] As it happens, most English translations of the Bible take this very approach, especially those which are more 'literal', since they cannot indicate the information structure without restructuring the English sentences.

Hermeneutical points

- Information structure displays the sociocognitive nature of communication. It is social because it involves a cognitive interaction between people engaged in communication, which is a social activity. It is cognitive because it reflects the mental state of the speaker and his mental model of his addressee. It is evident that an understanding of information structure provides conceptual tools useful for the task of biblical exegesis. There has been some research on information structure in biblical languages, but more is needed, and the results of this research should be utilized by scholars, translators, and teachers.
- Of broader significance, perhaps, is the fact that most sentences include presuppositions reflecting the author's model context of his authorial audience and assertions that reflect the information he is commending to them. This shows that *the authorial meaning is closely bound to the authorial context*. Since the authorial meaning is anchored to the context, the recovery of meaning requires grounding the text in a reconstruction of that context.
- Putting Greek and Hebrew sentences into writing does not change their information structure, so *there is no reason to claim that writing releases the assertions from the presuppositions, or the meaning from its context,* as so many hermeneuts allege. On the contrary, the hermeneutical task may be seen as involving in its first stage the reconstruction of authorial context and meaning, and then a consideration of the significance of that meaning within other contexts.
- Many hermeneuts allege that authorial context and meaning cannot be recovered from historical texts. Without doubt there are elements that are beyond full recovery, but contrary to this antihistoricist claim, *the information structure of almost every sentence in a text reflects its authorial context and authorial meaning,* namely in its presupposition and assertion.

5.3. The contextual and inferential nature of communication

One of the principal deficiencies of the code model of communication is that it reflects only the lexical and grammatical features of an utterance, with no ability to resolve reference,

[23] Devine and Stephens, *Latin Word Order: Structured Meaning and Information* (Oxford: Oxford University Press, 2006), 4.

disambiguate polysemy, fill in ellipses and implicit arguments, utilize contextual information, draw implications, or recognize unmarked speech acts. This is because such things are communicated inferentially rather than through a code, and the sum of them is far greater than the encoded bits. As noted by Max Turner for a biblical text, encoded meaning is 'simply the tip of the iceberg' of the discourse meaning communicated by an author.[24] The rest is communicated implicitly and must be inferred by the reader. A linguistic way of saying this is that is the meaning a speaker communicates through an utterance in context is a matter of pragmatics and not just semantics.

It has been recognized since Aristotle in his *Rhetoric* that speakers communicate much of their content implicitly, trusting their addressees to infer their intended meaning. In modern times, Grice has argued that communication involves the inference of intentions, such that when speaker A says utterance x to an addressee, communication occurs only if the addressee infers that 'A uttered x with the intention of inducing a belief by means of the recognition of this intention'.[25] In other words, the speaker does not simply make an utterance; he performs a speech act that is intended to have a particular effect on the addressee, and he expects the addressee to recognize that intention. In later work Grice expanded on the ostensively intentional and inferential nature of communication, and this view has become widely accepted.[26]

Pragmaticists such as Sperber and Wilson, Levinson, Horn,[27] and others have shown that human communication depends on inference and not simply codification. Consider for example the words of Jesus in Luke 10:37: πορεύου καὶ σὺ ποίει ὁμοίως. 'You go, and do likewise.' One cannot recover the referent designated by *you* or the activity denoted by *do likewise* simply by decoding the semantics of their largely vacuous terms; one must use inference, and the inference must be based on the context and co-text.

Inference and context are involved at every level of the communication process. Even a simple proposition cannot be communicated without some reliance on inference to select among the possible senses and referents. For one thing, lexemes are polysemous, so decoding a lexeme results in a list of lexical concepts, and the addressee must infer which of them was

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[24] Turner, 'Hermeneutics', 49,.

[25] Grice, 'Meaning', *The Philosophical Review*, 66/3 (1957), 383.

[26] See Grice, 'Logic and Conversation', in Peter Cole and Jerry L Morgan (eds.), *Syntax and Semantics 3: Speech Acts* (New York: Academic Press, 1975); Grice, *Studies in the Way of Words* (Cambridge, MA: Harvard University Press, 1989).

[27] See Sperber and Wilson, *Relevance*; Sperber, 'Understanding Verbal Understanding', in Jean Khalfa (ed.), *What is Intelligence?* (Cambridge: Cambridge University Press, 1994), 179–198. Horn, 'Toward a New Taxonomy for Pragmatic Inference: Q-based and R-based implicative', in Deborah Schiffrin (ed.), *Georgetown Round Table on Languages and Linguistics 1984* (Washington, D.C.: Georgetown University Press, 1984); Levinson, *Presumptive Meanings: The Theory of Generalized Conversational Implicature* (Cambridge, MA: MIT Press, 2000).

most likely intended by the speaker. Sometimes this is not clear. In Ruth 3:9, for example, English translators have rendered the Hebrew כָּנָף *kānāph* variously as *wings* (ESV), *covering* (NASB), *cloak* (NRSV), *skirt* (KJV), *edge* [of your cover] (CEV), and *corner* [of your garment] (NIV), and they could also have used *shelter* or *protection*:

> Spread your wings over your servant, for you are a redeemer. (Ruth 3:9 ESV)

Ruth is actually asking Boaz to care for her by marrying her.

Since concepts are contextualized for particular instances of usage, the addressee must infer the appropriate variant for the given context. In the case of Ruth 3:9, Ruth's request is understood by Boaz to evoke the concept of sheltering and to have the contextualized sense of marriage, and he tentatively accepts her marriage proposal. The New English Translation (NET) makes this inference explicit by translating it as a request for marriage. This example illustrates the **semantic ambiguity** that permeates language and which can be resolved only through inference based on the co-text and context.

The lexemes and structures of a sentence are not only ambiguous with regard to semantics, they are referentially indeterminate as well. Nevertheless, referential information does get communicated through inference, and it is an essential constituent of propositions.[28] Take for example the following sentence (1 Tim 3:14):

> ἐλπίζων ἐλθεῖν πρὸς σὲ ἐν τάχει·
> I hope to come to you soon.

An isolated sentence like this does not identify the intended referents. Who is the speaker (the referent of *I*)? Who is the addressee (the referent of *you*)? Where is the destination (implied by *come*)? What is the time of speaking for this utterance (implied by the present tense of *hope*), and what is the time period to which reference is made by *soon*? Clearly it is not possible to recover the proposition intended by the author simply by decoding the words. One must infer the proposition, including its referents, from the co-text and context. In this case the sentence is from 1 Timothy 3:14, and the co-text (notably 1 Tim 1:1–3) indicates that Paul the Apostle is addressing his disciple Timothy, who is in Ephesus, while Paul might still be in Macedonia. The historical context indicates the letter was written circa 63–65 AD, so that would be the time frame for the event of Paul's hoping. Given the distance and circumstances, *soon* could encompass any point of time within the following year, and certainly before 70 AD. The point is that resolutions of reference are inferential, even those in the explicit sentence. None of them are encoded in the sentence 'I hope to come to you soon'. So by this inference of the time and

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[28] It is possible to make a **semantic reference** by using a **singular descriptive term** like *the sun*, which has only one possible referent, namely Sol, but even then the addressee must infer whether the reference is 'literally' to the sun or 'figuratively' to a happy day (as in Malachi 4:2) or something else. In many cases, however, a singular term still lacks an identifiable referent and is only a *de dicto* designation, as in John 7:31: 'When the Messiah comes,' they said, 'is it likely that he will perform more signs than this man?' (NRSV)

place, a more explicit way of expressing the proposition would be the following: 'Around 64 AD, somewhere near Macedonia, Paul hoped to visit Timothy of Lystra in Ephesus sometime soon.' The explicitness in this wording constrains the referential possibilities, but the reader must nevertheless identify the author's references. Texts do not refer; authors refer, and readers infer their intended referents, and authorial readers do this with a great deal of success.

It can be seen, then, that utterances do not encode propositions but merely provide semantic clues from which those propositions can be inferred, with additional clues from the co-text and context. As Max Turner notes for the Bible, 'It is engagement between the writer's utterance and the implied presupposition pool that establishes the (determinate, even if sometimes ambiguous) authorial discourse meaning.'[29] Since communication is usually successful, it is evident that speakers generally supply sufficient clues for their authorial audience to infer the references and propositions by drawing on contextual information. In Relevance Theory, the proposition that the addressee infers from an utterance in context is called an **explicature**, and the content of an explicature is called the utterance's **explicit content**.[30] Although the proposition itself is not encoded in the wording, the clues for it are explicit. This contrasts with propositions that are communicated implicitly with no explicit clues.

The addressee must also infer the illocutionary point of the speaker's speech act. Sometimes this must be inferred entirely from context. If a child comes into the kitchen and says, 'I'm hungry', then he is probably making a request for food. If an utterance is pragmatically ambivalent, then the addressee might infer an illocutionary point different from that intended by the speaker. An example is David ben Jesse expressing a longing for water from the well at Bethlehem and being misinterpreted as making a request: 'Oh, that someone would give me water to drink from the well of Bethlehem that is by the gate!' (2 Sam 23:15).

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[29] Turner, 'Hermeneutics', 49.

[30] Sperber and Wilson, *Relevance*, 182. This seminal text was first published in 1986. A short overview is given in Wilson and Sperber, 'Relevance Theory', in Lawrence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2004), 607–632. For a comparison of Cognitive Linguistics and Relevance Theory, see Evans and Green, *Cognitive Linguistics*, 459–464. Evans and Green find agreement on many things, but reject RT's use of a generative model of language, the modularity hypothesis, and a logical truth-conditional account of meaning. I agree with Evans and Green and could name some additional weaknesses, such as locating context in a mutual, monocultural cognitive environment instead of a contextual model of the addressee, ignoring concepts and schemata, ignoring information structure, and focussing solely on the informative function of communication, while ignoring some of the social and aesthetic functions. The problem is that RT was developed before the second cognitive revolution, and it's main developers have never updated it. It's basic principles, however, remain valid, as Evans and Green agree, but its obsolete framework alienates cognitive linguists.

Propositions communicated with no explicit clues are called **implicatures**; they constitute the **implicit** content of an utterance, the rest of the iceberg, so to speak.[31] There are two main kinds of implicature: propositions known to the addressee which the speaker wants to implicate as a premise, and propositions new to the addressee which the speaker wants to implicate as conclusions. These two kinds of implicature have been discussed for centuries as 'hidden' or 'implicit premises' and as 'implicit conclusions'.

In the terminology that Sperber and Wilson have popularized via Relevance Theory, the implicit premise is called a **contextual assumption** or a **contextual premise**, because it is drawn from the addressee's cognitive environment.[32] The body of contextual assumptions relevant to a communicative event is then called its **context**. This usage differs from the broader use of the term *context* in traditional hermeneutics. Carston defines context as 'that subset of mentally represented assumptions which interacts with newly impinging information (whether received via perception or communication) to give rise to contextual effects'.[33] Most contextual effects are synthetic implications deduced from two or more premises, in which one premise is an explicature and the other is a contextual assumption. For that reason the conclusion is called a **contextual implication**.

For a biblical example, consider Luke 4:16–30, where Jesus announces his mission to the people of his hometown, Nazareth.[34] He reads to them the prophecy of a future saviour in Isaiah 61:1–2, then makes a proclamation (v. 21): 'Today this Scripture has been fulfilled in your hearing.' The people were initially surprised at this announcement, but their shock turned to disbelief and then anger. So what exactly did Jesus announce to them as being fulfilled? Evidence that this passage was considered Messianic at the time can be found in 4Q521 *Works of the Messiah*,[35] 11Q13 *Melchizedek*,[36] and 1 Enoch.[37] If this view of Isaiah 61:1–2 had been

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[31] See Sperber and Wilson, *Relevance*, 182. Their theory differs from that of Grice, who proposed conversational implicatures and conventional implicatures.

[32] There is now a rich literature on the subject, and a bibliography is available at http://www.ua.es/personal/francisco.yus/rt.html, spanning a number of academic domains. RT has had considerable influence on subsequent developments in (1) communication theory, (2) semantics and pragmatics, (3) discourse linguistics, (4) literary genre, and (5) translation.

[33] Carston, *Thoughts and Utterances*, 376. See also Sperber and Wilson, *Relevance*, 15.

[34] For a translation and discussion of these passages, see Turner, *Power from on High: The Spirit in Israel's Restoration and Witness in Luke-Acts* (Sheffield: Sheffield Academic Press, 1996), 116–117, 220–263.

[35] 4Q521 says that through the Messiah, God 'liberates the captives, restores sight to the blind, straightens the b[ent] … bring[s] good news to the poor'. Several scholars have noted that this description of the Messiah echoes Isa 61:1 and highlights the Messianic significance of the quotations of Isa 61:1 in Luke. See Evans, 'Jesus and the Dead Sea Scrolls from Qumran Cave 4', in Craig A. Evans and Peter W. Flint (eds.), *Eschatology, Messianism and the Dead Sea Scrolls* (Studies in the Dead Sea Scrolls and Related Literature; Grand Rapids & Cambridge: Eerdmans, 1997), 91–100, 97; Evans, 'What Are They Saying About the Historical Jesus', (Acadia Divinity College, 2004), 15–16; Collins, *The*

taught in the synagogue at Nazareth, then Jesus would have expected his audience to access this interpretation when he read the prophecy and said it was now fulfilled, and they would have inferred the implication that Jesus was presenting himself to them as the Messiah and heralding the blessings of God's kingdom.[38] This would explain their shock at his announcement.

Examples like these support the claim that a speaker depends, not just on words and structure, but also on context and inference to communicate his meaning to his addressee, and that much of this meaning is implicit. As de Vries put it:

> Utterances do not express what people want to communicate but rather they mediate speakers' intentions within a given context.[39]

This observation falsifies the code model. Although the code model begins with the speaker's intended message, its hermeneutic is limited to decoding the forms used in the utterance itself, with no provision for context or inference. Its only provision for resolving vagueness, ambiguity, and ambivalence is for the hearer to check the accuracy of the decoded message by sending feedback to the speaker. If the utterance is a text, however, and the author is deceased, then there is no way for the reader to confirm her interpretation. So she is left with a text-based hermeneutic. Such a hermeneutic provides little guidance or constraint on how semantic ambiguity and pragmatic ambivalence are to be resolved, with the result that each decoder interprets the text in whatever way seems right in her own eyes.

Scepter and the Star: the Messiahs of the Dead Sea Scrolls and other Ancient Literature (New York: Doubleday, 1995), 205.

[36] Hengel (Hengel, *Studies in Early Christology* (Edinburgh/New York: T&T Clark, 1995), 111.) finds echoes of Isa 61:1 in the phrase משיח הרוח 'Messiah of the Spirit', found at 11Q13 2:18, as do I. H. Marshall (Marshall, 'Jesus Christ, Titles of', in D. R. W. Wood and I. Howard Marshall (eds.), *New Bible dictionary* (3rd edn.; Leicester, England; Downers Grove, IL: InterVarsity Press, 1996).) and Christopher Rowland (Rowland, *Christian Origins: An Account of the Setting and Character of the most Important Messianic Sect of Judaism* (London: SPCK, 1985), 95.). John Collins (Collins, *The Scepter and the Star*, 118.) finds echoes of Isa 61:1 in other wordings of 11Q13.

[37] 1En 48:4 speaks of the Messiah being the hope of the broken hearted. Klausner regards this as a echo of Isa 61:1 (Klausner, *The Messianic Idea in Israel; from its Beginning to the Completion of the Mishnah* (3 edn.; New York: MacMillan, 1955), 293.).

[38] It is evident from the role of this passage in Luke, both here and in 7:22, that Luke regarded Isa 61:1–2 as Messianic prophecy and Jesus' citation of it as an indicator of his fulfilment of that prophecy. See also France, *Jesus and the Old Testament* (London: Tyndale, 1971), 250; Hengel, *Studies*, 38, 109; Bock, *Proclamation from Prophecy and Pattern: Lucan Old Testament Christology* (Journal for the Study of the New Testament Supplement Series, 12; Sheffield: JSOT Press, 1987), 110. There is disagreement among scholars, however, on the role of the Messianic figure in Isa 61:1ff., whether he is inaugurating the new age or just announcing it. Targum Jonathan translates Isa 61:1 as spoken by נְבִיָא 'the prophet'. The use of the text in Luke 4 and 7:22, however, reflects a general expectation that this eschatological figure would actually do these works and not just announce them prophetically.

[39] Vries, 'Bible Translations: Forms and Functions', *The Bible Translator* 52/3 (2001), 306–319, 308.

Returning to the words of Jesus to the leper in Mark 1:44, what is the meaning that Jesus conveyed when he said ὕπαγε σεαυτὸν δεῖξον τῷ ἱερεῖ ... εἰς μαρτύριον αὐτοῖς 'go, show yourself to the priest … for a proof to them'? The utterance itself, as reported by Mark, consists of only a few words, but it would have prompted a number of propositions in the cognition of the leper. As we reconstruct the speech event, there would have been propositions explicated from the sentence itself, such as:

> Jesus directed a specific leper to show himself to an officiating priest of YHWH for examination.

Note that the identity of the speaker is inferred from the context, the identity of the leper would have been known to the original interlocutors. The facts that the priest had to be a priest of YHWH and that he had to be on duty are drawn from contextual information in the TEMPLE schema, as is the ritual type of 'showing', i.e. presentation for a medical examination. This contextual information was needed to infer even an explicit proposition from the sentence. There would also have been contextual assumptions implicated as implicit premises, such as the following:

> The relevant priest was a priest of Yhwh officiating in the temple of YHWH.
>
> The temple of Yhwh was in Jerusalem.

This information would have led to the inference of additional implications:

> Jesus directed this leper to travel to the temple of Yhwh in Jerusalem.
>
> The leper will be healed of his leprosy.
>
> The priest will examine the leper.
>
> The priest will see that no leprosy is present.

Note that these last three inferences are necessary as a logical **bridge** to the more explicit proposition below, which is implicated by the words *as a proof*:

> The examination will prove to the priest that the leper has been cleansed.

This in turn implicates the conclusion that is the main point of the directive, hinted in the phrase *to them*, namely the declarative speech act:

> The priest will declare to the public that the leper is now ritually clean.

The result of this declaration will be the state of affairs for which the leper was hoping:

> The man will be free to live in society and participate in worship.

Note that just a few textual sentences communicated all of these propositions, most of them implicitly. The sum of these explicit and implicit propositions constitutes the meaning of Jesus' utterance, as reported by Mark. It is readily evident that neither a code model of communication nor a text-based hermeneutic can account for all this information and are therefore inadequate.[40]

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[40] One might note the comments of Ronald Sim in this regard in Sim, 'Modeling the Translation Task: Taking Luke 2:27–38 as a Case Study', in Stefano Arduini and Robert Hodgson (eds.), *Similarity and Difference in Translation* (2nd edn.; Rome: American Bible Society, 2007), 103–124, 120: 'The

Blakemore argues in great detail that texts provide two kinds of information: conceptual and procedural.[41] The procedural information is encoded in grammatical words like *but, just, although, nevertheless* and the like that serve to constrain inferences. The existence of inferential particles like these in most languages is further evidence for the inferential nature of communication. Those particles differ, however, among languages, and exegetes and translators have been perplexed about their function, but Relevance Theory provides a framework for understanding them and is facilitating new insights into the biblical languages.[42]

Hermeneutical implications

One significant implication is that *the total meaning which the author intends to convey to the addressee is more than the semantic meaning encoded in the sentences of the text.* As Horn puts it, 'linguistic meaning radically underdetermines the message conveyed and understood'.[43] Hirsch calls this 'the semantic underdetermination of natural language'.[44] Others call it the 'pragmatic ambivalence' of utterances. This follows from the fact that the proposition expressed by a simple sentence in context (i.e. its basic explicature) is much more specific and informative than the words of the sentence, and the sentences of a paragraph convey much more information than the sum of their propositions, due to their implicatures.

It seems, however, that some interpreters are still basing interpretation on a code model of communication instead of an inferential model, and some hermeneuts still claim the meaning is in the text. Yet the polysemy, underdetermination, and pragmatic ambivalence of an isolated text allow it to fit a vast range of interpretations, making it impossible to identify a particular meaning that is 'in the text'. As Stephen Fowl notes in this regard, 'a quick survey of the critical landscape makes it pretty clear that our situation is marked by interminable debate and disagreement about just what the meaning of a text is'.[45] Such is indeed the case with the code model, because the text is hopelessly polysemous and there is no defined role for context or informative intentions. In contrast to this, normal conversation is rarely ambiguous, uses context automatically, and is always focused on what the speaker means. This is not because it

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[addressee's] interpretation is a mental representation constructed from the stimulus, the evoked context and further inferences derived from the two.'

[41] Blakemore, *Relevance and Linguistic Meaning: The Semantics and Pragmatics of Discourse Markers* (Cambridge: Cambridge University Press, 2002), chap. 4.

[42] See for example Sim, 'A Relevance Theoretic Approach to the Particle ἵνα in Koine Greek', PhD Thesis (University of Edinburgh, 2006).

[43] Horn, 'Implicature', in Lawrence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2004), 3–28.

[44] Hirsch, 'Transhistorical Intentions and the Persistence of Allegory', *New Literary History*, 25 (1994), 549–567.

[45] Fowl, 'The Role of Authorial Intention in the Theological Interpretation of Scripture', in Joel B. Green and Max Turner (eds.), *Between Two Horizons: Spanning New Testament Studies and Systematic Theology* (Grand Rapids: Eerdmans, 2000), 71–87.

is spoken rather than written, but because the interlocutors are automatically using their inferential, sociocognitive processes of communication instead of an artificial code model. These inferential processes operate largely at a subconscious level through spreading activation of neuronal connections.[46] On the other hand, exegesis and exposition require a controlled interpretive process rather than an automatic process, and that requires interpreters to understand the automatic sociocognitive processes so they can consciously reconstruct them. I will describe the core processes in the following sections.

It should be clear from the inferential nature of communication that a text cannot have meaning on its own. What it provides are semantic and pragmatic clues to the author's intended context and meaning, but that meaning must be inferred by the reader. There is no such thing, therefore, as 'textual meaning'. Texts afford interpretations within particular context, but they do not generally contain a determinative context-free meaning.

On the other hand, every informative text was created by an author with the intent of conveying particular information to an authorial audience. Thus the author's informative intent is the only determinative meaning a text can represent. Readers, of course, can construct meanings of their own, but these remain constructs rather than reconstructions, and they risk offending the author. I hope to show in what follows that a sociocognitive hermeneutic can provide a methodology for plausible reconstructions of authorial context and meaning.

It is clear that informative intent originates with the author, because a text is insentient and cannot have intentions. So *those who seek to reconstruct authorial meaning are not actually interpreting the text itself but are interpreting the author*, a point that Wolterstorff has repeatedly made. This claim may sound strange to text-centred and reader-centred interpreters, but it is the normal use of the term *interpretation* in communicative settings, where one seeks to understand 'what the speaker meant' by something.

Hermeneutical points

- The information communicated by the author existed in his mind rather than in his text.
- The text was crafted by the author as a verbal stimulus that could interact with a context of his authorial audience to reproduce assumptions of his own as cognitive effects in their minds.
- The task of comprehending the author's meaning required the audience to infer the senses of polysemous lexemes, infer the referents of referential terms, infer the illocutionary points of the speech acts, infer the implicit premises of the utterance, and deduce the implicit conclusions from the implicit and explicit co-premises.

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[46] See Panther, 'The Role of Conceptual Metonymy in Meaning Construction', in Francisco J. Ruiz De Mendoza Ibáñez and M. Sandra Peña Cervel (eds.), *Cognitive Linguistics: Internal Dynamics and Interdisciplinary Interaction* (Berlin and New York: Mouton de Gruyter, 2005), 353–386, 353.

- These inferences were based on information that was accessible to the authorial audience in their context.
- The author's meaning is found in the cognitive effects that would be expected to result in his audience from the inferential interplay between the text and their context. This is the **locus of authorial meaning** in a sociocognitive model of communication.
- Authorial meaning includes the speech acts and assumptions, both explicit and implicit, that the speaker could have expected his audience to infer from his text in their context. This is the **content of authorial meaning** in a sociocognitive model.
- Interpreters are not members of the authorial audience and do not share the authorial context, but by becoming astute observers of text and context they can reconstruct the inferential interplay the yields the author's meaning.
- Communication is contextual and inferential; therefore the code model of communication is inadequate as a model of communication, and textual-sense hermeneutics are inadequate as a model of comprehension. What is needed in their place is a sociocognitive model based on principles of context and inference.

5.4. Context

Until the eighteenth century, interpreters of the Bible gave little attention to the original context of a text's composition, and they commonly interpreted text within the context of their own theological and interpretive tradition. This approach was challenged, however, by Friedrich Ast, Friedrich Schleiermacher, and Wilhelm Dilthey, who recognized that interpretation of a text depends on the context in which it is interpreted. They argued that the proper goal of exegesis is discernment of the author's meaning, and that this task required one to enter the world of the author.[47] Schleiermacher taught that the reader needed to become familiar with the author's historical context, the linguistic characteristics of the language that he used, and the intertext of literature on which the author drew (and expected the readers to know). Rather than using the phenomenological term *horizon*, Sperber and Wilson[48] use the term **total cognitive environment** to encompass all the concepts and assumptions of culture, worldview, language, co-text, and situation which are familiar and accessible to an interlocutor at the time of a speech event. The **context** then consists of that subset of the cognitive environment which is implicated by an utterance as critical for comprehending it. The **implicit premises** are drawn from this context, and for that reason they are called **contextual assumptions** or **contextual premises**. When these contextual premises are added to the explicit

[47] See for example the translations of works by Ast, Schleiermacher and Dilthey in Ormiston and Schrift, *The Hermeneutic Tradition: From Ast to Ricoeur* (Albany, NY: State University of New York Press, 1990).

[48] Sperber and Wilson, *Relevance (1st)*, 39.

premises of the utterance, they function together as **co-premises** to entail synthetic implications, which in this case are called **contextual implications** or **contextual conclusions**. The addressee infers these as **implicit conclusions** and as part of the meaning of the utterance.

In this section we have seen that the speaker communicates his meaning to the addressee by crafting an utterance that can interact inferentially with her context, as he understands it, in ways that enable her to infer his intended meaning and to experience the cognitive effects that he intended to produce in her. Whether those effects are actually produced, however, depends on the quality of his model context and the aptness of his utterance for interpretation within that context, as well as the mood and attentiveness of the addressee and other unpredictables.[49]

Hermeneutical implication

Exegetes cannot know the minds of actual readers, but they can reconstruct the context of the authorial audience to some degree, both from their knowledge of contemporaneous literature and archaeological evidence and from clues in the text itself. In particular, almost every sentence encodes presuppositions from the author's model of his authorial audience, and the implicated premises are taken from it as well. Other works by the same author can reveal additional concepts and beliefs of a similar authorial audience; they can also provide further evidence for the stories, concepts, and beliefs that the author himself was concerned to communicate.

Hermeneutical points

- The normal cognitive goal of natural interpretation is to comprehend the speaker's informative intentions.

  This finding of cognitive science upholds Schleiermacher's claim, and it is easily observed in everyday life. Divergences in people's worldview may lead them to misinterpret the speaker or to want to hear their own views supported by that speaker, but the recovery of the speaker's intentions remains the goal of their natural interpretive processes. This contrasts with antipsychologistic approaches that remove intentionality from the scope of inquiry and with deconstructionist approaches that dismiss authorial meaning as unrecoverable or not worth the effort.

- The meaning conveyed by an utterance to an addressee depends crucially on its context.

  Research in pragmatics has demonstrated the essential role of audience context in communication and has explained much of its inferential mechanisms. This supports an assumption of historical-grammatical interpretation and contrasts with reader-response and postmodern interpretation, as well as with the allegorical and anagogical

[49] A question that needs empirical investigation is the extent to which the results of human communication are stochastic (probabilistic) rather than deterministic.

interpretation of the medieval period. In historical-grammatical interpretation, however, context remained a vague concept whose scope and cognitive mechanisms were poorly understood. A sociocognitive approach clarifies the nature and content of context and the way it interacts with text to communicate meaning.

- *The meaning that an author intended to communicate by means of his text is a function of the model context he envisaged for his authorial audience rather than a function of the actual contexts used by actual readers, including the original ones.*

  This is basically a new and quite significant understanding of context.

- *The hearer uses inferential processes to interpret the speaker's intended meaning from his text and her own context.*

  Inference and context are needed for the hearer to decode the utterance, construct its explicature, select its contextual premises, and derive its conclusions. Thus interpretation is not simply a mechanical process of decoding linguistic forms but a recursive inferential process crucially dependent on contextual assumptions and logical derivations. Schleiermacher tried to capture this with the concept of the hermeneutical circle, but he despaired for lack of a principle to guide and constrain the process.

- *If modern readers do not know and utilize the contextual premises which an author intended to implicate by his utterance, then they will be unable or unlikely to infer the contextual conclusions that the author intended to implicate; hence they will fail to comprehend the full meaning of the author and are likely to infer conclusions that differ from those which the author intended.*

5.5. Contextualization and the principle of optimal relevance

Aristotle noted that communication was inferential in nature: The speaker conceives a message, selects a context, and crafts an utterance that will enable his addressee to infer his total message from the combination of utterance, context, and contextual implications. A person's cognitive environment is vast, with perhaps a hundred thousand concepts and schemata, and millions of assumptions; given this, it is amazing that speakers and addressees agree, in their cognitive unconscious, on the unarticulated assumptions that are part of the speaker's message. How do addressees succeed in identifying and accessing the speaker's implicit contextual assumptions, and how does the speaker achieve in making these implicit assumptions identifiable? In other words, how does he contextualize his message such that his addressees correctly infer the concepts, referents, and contextual assumptions that he intended? It is evident that the cognitive faculties of communication are 'remarkably and wonderfully made' as well.

H. P. Grice proposed that inferences are based in part on a presumption that speakers generally observe certain principles in the way they craft utterances. He identified four such

principles, which he called **conversational maxims**, and he characterized them as flowing from a general social convention he called **the cooperative principle**.[50] They are summarized below:

Maxims of quantity Make your contribution as informative as required. Do not make your contribution more informative than is required.
Maxims of quality Do not say what you believe to be false. Do not say that for which you lack adequate evidence.
Maxim of relation Be relevant.
Maxims of manner Avoid obscurity of expression. Avoid ambiguity. Be brief. Be orderly.

Grice then argued that implicit information was not deductively implied by the explicit statement itself, but was inferred by taking the statement and the conversational maxims as premises. He named these intentional inferences **conversational implicatures**.

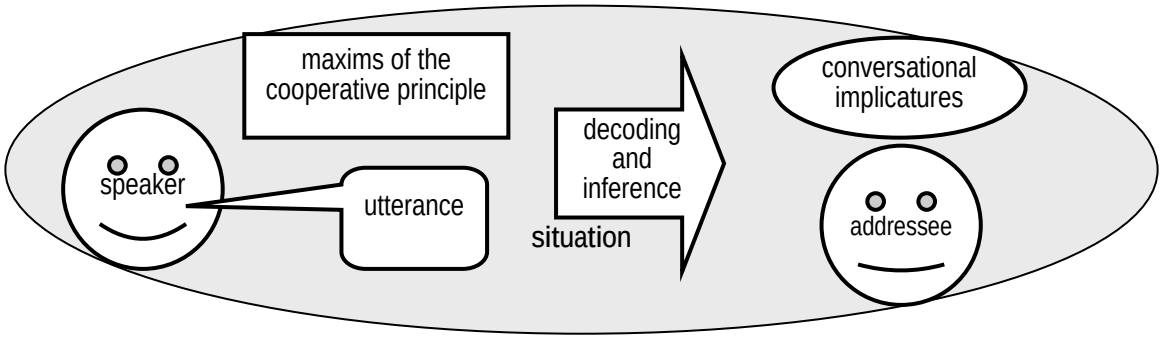

Figure 5–B Representation of Grice's model of conversational implicature

Grice further stated that violations of the maxims correlated with the implication of additional propositions, and in particular that conversational maxims can be flouted to produce various effects, such as figures of speech. By this account, for example Jesus flouts the maxim of quality (truthfulness) in John 15:5 by saying to his disciples, ἐγώ εἰμι ἡ ἄμπελος, ὑμεῖς τὰ κλήματα 'I am the vine, you are the branches.' Since it is obvious that Jesus is not actually a vine, his addressees realize he is flouting the maxim of quality, so they infer he is using a figure of speech and interpret his remark accordingly.

[50] Grice, 'Logic and Conversation', in Peter Cole and Jerry L Morgan (eds.), *Syntax and Semantics 3: Speech Acts* (New York: Academic Press, 1975). These four maxims are summarized by Cutler as 'injunctions to speakers not to bore, puzzle, offend, or deceive audiences'. See Cutler, 'The Task of the Speaker and the Task of the Hearer', *Behavioral and Brain Sciences,* 10/4 (1987), 715–716.

Grice differentiated between conversational implicatures, which were derived from the conversational maxims, and **conventional implicatures**, which are associated with certain expressions by social convention.[51] Grice did not follow up on this latter line of inquiry, but it was developed by Stephen Levinson, who gave the following definition:

> Conventional implicatures are non-truth-conditional inferences that are not derived from superordinate pragmatic principles like the maxims, but are simply attached by convention to particular lexical items or expressions.[52]

For example the word *some*, as in 'some of the mice escaped', is usually inferred to imply 'some but not all' [of the mice escaped], even though it might actually be the case that all of them escaped. The claim is that it implicates the meaning 'not all' as a conventional implicature.[53]

The value of Grice's work on inferential communication was recognized by a number of scholars. Searle incorporated Grice's cooperative principle into Speech-Act theory to provide grounds for inferential processes. Cotterell and Turner included consideration of illocutionary acts and conversational implicatures in their Biblical hermeneutic, as did Thiselton and Vanhoozer.[54] People came to realize, however, that there were some shortcomings with Grice's model (and hence with Searle's) that needed to be solved: (1) The model takes account of social context but not culture. As Saville-Troike notes, the patterns of conversation differ among speech communities.[55] In addition, Grice's model cannot explain (2) why there should be a social universal apart from inherited human cognitive processes, (3) why these maxims should exist as part of that universal, nor (4) how people select implicit premises to use in the derivation of conclusions. Davis noted some additional difficulties,[56] namely that (5) the model has theoretical inconsistencies, (6) it overgenerates implicatures, (7) it fails to determine the intended implicatures, and (8) the maxims can be in conflict. When the maxims appear to be violated; the model simply allows too many differing interpretations with no principled way of

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[51] See Ibid., 44. Grice cites as an example the word *therefore*, which does not contribute to the truth conditions (meaning) of a sentence.

[52] Levinson, *Pragmatics* (Cambridge: Cambridge University Press, 1983), 127.

[53] For a fuller and more recent treatment, see Levinson, *Presumptive Meanings: The Theory of Generalized Conversational Implicature* (Cambridge, MA: MIT Press, 2000).

[54] Cotterell and Turner, *Linguistics and Biblical Interpretation* (London: SPCK, 1989), 47–49, 90–97.; Thiselton, *New Horizons in Hermeneutics: The Theory and Practice of Transforming Biblical Reading* (Grand Rapids: Zondervan, 1992), 16–19, 283–312, 597–604.; Vanhoozer, *Is There a Meaning in this Text? The Bible, the Reader and the Morality of Literary Knowledge* (Leicester: Apollos, 1998).

[55] Saville-Troike, *The Ethnography of Communication: An Introduction* (3rd edn.; Oxford: Blackwell, 2003), 38.

[56] Davis, 'Implicature', in Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy (Summer 2005 Edition)* (2005) <http://plato.stanford.edu/archives/sum2005/entries/implicature/>. For a detailed critique, see Davis, *Implicature, Intention, Convention and Principle in the Failure of Gricean Theory* (Cambridge: Cambridge University Press, 1998).

determining which one is preferred. As Thomas puts it, 'How do we know when the speaker is deliberately failing to observe a maxim and hence that an implicature is intended?'[57] For example, when Jane says to John, 'You left the window open' or 'It's cold in here', with the expectation that John will close the window, there is nothing unfelicitous or atypical about the utterances. So this fails to explain how John knows that Jane is making an indirect request and not simply stating an observation. This could be explained as a conventional implicature, but that has problems as well. Kent Bach, among others, examined the concept in great detail and concluded that 'there are no clear examples of it. The phenomena that have been thought to be conventional implicatures turn out to be examples of something else.'[58]

Lawrence Horn tightened and simplified Grice's approach, reducing it to two principles, Q and R. His Q-principle (for quantity) is that the speaker say enough that his addressee can infer his meaning, while the R-principle (for relation or relevance) is that the speaker should say no more than is necessary.[59] At the same time, the speaker should maintain quality by being honest. This refinement improves on Grice's model but it does not overcome deficiencies. The main weakness of both models of inferential communication is that they do not take adequate account of the cognitive processes which must be involved in the inference of implicatures, including the role of context. *Since interpretation is a cognitive process, what is needed is a model of interpretation that incorporates known processes of cognition.*

Sperber and Wilson reduced Grice's conversational maxims to one, the presumption of optimal relevance. This could be seen as a combination of Q and R above, but they went a step further to ground their account on general cognitive processes, including the role of contextual information in those processes. According to Sperber and Wilson, the process of **contextualizing** a message is guided and constrained by two epistemic cognitive principles (and these are quotations):

> Human cognition tends to be geared to the maximisation of relevance.[60]

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[57] Thomas, *Meaning in Interaction: An Introduction to Pragmatics* (London: Longman, 1995), 87. For additional criticisms, see Sperber and Wilson, *Relevance: Communication & Cognition* (2nd edn.; Oxford: Blackwell, 1995), 161–163.

[58] Bach, 'The Myth of Conventional Implicature', *Linguistics and Philosophy,* 22/4 (1999). Relevance Theory explains most of the 'generalized conventional implicatures' as kinds of procedural information rather than implicatures. See Blakemore, *Semantic Constraints on Relevance* (Oxford: Blackwell, 1987). and more recently Blakemore, 'Discourse Markers', in Lawrence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2004).

[59] See Horn, 'Toward a New Taxonomy for Pragmatic Inference: Q-based and R-based implicative', in Deborah Schiffrin (ed.), *Georgetown Round Table on Languages and Linguistics 1984* (Washington, D.C.: Georgetown University Press, 1984). and Horn, 'Implicature', in Lawrence R. Horn and Gregory Ward (eds.), *The Handbook of Pragmatics* (Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2004).

[60] Sperber and Wilson, *Relevance*, 261; Wilson, 'New Directions for Research on Pragmatics and Modularity', in Angeliki Salamoura et al. (eds.), *Reviewing Linguistic Thought: Converging trends in the*

> Human beings automatically aim at the most efficient information processing possible.[61]

To communicate in accord with these principles, a speaker automatically contextualizes his message in a way that maximizes the relevance of his utterance to the addressee while minimizing the effort required by her to comprehend his meaning. An assertion is said to be **relevant** to the addressee to the extent that it provides her with information that has implications for the other things she knows and values.[62] These are called **positive cognitive effects**. It is also relevant to the extent that the intended concepts, referents, and contextual assumptions are among those which are most accessible to the addressee, making the processing quick and easy. So there are two parameters: the maximization of positive cognitive effects and the minimization of processing effort, with relevance being the ratio. High relevance therefore corresponds with realizing positive cognitive effects with minimal cognitive effort.

The key element of Relevance Theory is the claim that the addressee *assumes* that the speaker has crafted his utterance such that it produces maximal cognitive effects for her with minimal processing effort. Sperber and Wilson call this the **presumption of optimal relevance**.[63] Their theory is that the processing system in the addressee's brain scans the possible interpretations of an utterance with regard to concepts, referents, and contextual assumptions, beginning with those which are most accessible, those which together satisfy the presumption of relevance by producing contextual implications with positive cognitive effects.

21st century (Berlin: Mouton de Gruyter, 2005), 375–400, 387. Wilson calls this 'the cognitive principle of relevance'.

[61] Sperber and Wilson, *Relevance*, 49.

[62] Sperber and Wilson define the **cognitive principle of relevance** as follows (Sperber and Wilson, *Relevance*, 265.):

> An assumption is relevant to an individual at a given time if and only if it has some positive cognitive effect in one or more of the contexts accessible to him at that time.
> An assumption is relevant to an individual to the extent that the positive cognitive effects achieved when it is optimally processed are large [and] … the effort required to achieve these positive cognitive effects is small.

Note that processing effort can be high if the utterance is too terse, too verbose, too vague, or too abstruse, if it implicates contextual assumptions which are unavailable to the addressee, or if the addressee must try many assumptions from a broad context before discovering the ones which produce positive cognitive effects.

[63] Sperber and Wilson define this **presumption of optimal relevance** as follows:

(a) The ostensive stimulus is relevant enough to make it worth the addressee's effort to process it.

(b) The ostensive stimulus is the most relevant one compatible with the communicator's abilities and preferences. (Sperber and Wilson, *Relevance*, 270.). Comparing this to the maxims of Grice's Cooperative Principle, we can see that it combines his Maxim of Relation ('Be relevant'), his Maxims of Manner ('Be perspicuous'), and his Maxims of Quantity ('Be informative'), while rejecting his Maxims of Quality ('Be truthful').

In ordinary language, the brain automatically opts for whatever immediately 'makes sense' within its cognitive environment. This comprehension process occurs automatically in the unconscious. Its presumption by both the speaker and hearer is the key to inferring the speaker's informative intent, as there is usually just one interpretation which is maximally relevant to the addressee. This is therefore the key to exegesis as well, but on a controlled level, with model contexts that are not drawn from the interpreter's own cognitive environment.

The observation that the principle of optimal relevance operates automatically and transculturally in the unconscious is compelling evidence that it is an innate cognitive process underlying human communication. Thus it is more than a social convention between communicators; it is a cognitive process common to humankind. It is an outcome of the more general cognitive principle that human cognition seeks maximal value for minimal effort.

The addressee's task of finding the context in which an utterance has optimal relevance is called **contextualization**,[64] as was the speaker's task of selecting that context. The process is inferential, because the contextual assumptions are not explicitly stated and are inferred from the cognitive environment. This scanning and testing of potential contextual assumptions occurs rapidly in what Lakoff and Johnson call the **cognitive unconscious**, and it is only the successful results that are **evoked** to the consciousness of the addressee. Potential contextual assumptions are tested by using them as co-premises with the explicature to derive implications and then by evaluating the positive cognitive effects of those implications. None of this comes to mind until the testing process finds an assumption that can yield implications with adequate cognitive effects, in which case the process stops and brings those effects to mind. For the exegete, however, the reconstruction of this contextualization process is a deliberate, conscious activity.

Sperber and Wilson note that the goal of minimizing the addressee's processing effort entails economy of speech:

> A speaker aiming at optimal relevance will leave implicit everything [that the addressee] can be trusted to supply with less effort than would be needed to process an explicit prompt.[65]

This provides a cognitive explanation for a phenomenon that Grice treated as a social convention. He called it the 'maxim of quantity' and explained it as follows:

> Make your contribution as informative as required.

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[64] Sperber and Wilson define these as follows (Sperber and Wilson, *Relevance*, 107.):

> … **P** may be thought of as new information, and **C** as old information. Let us call a deduction based on the union of **P** and **C** as premises a *contextualisation of* **P** *in the context of* **C**. The contextualisation of **P** in **C** may yield new conclusions not derived from either **P** or **C** alone. These we will call these the *contextual implications* of **P** in **C**.

[65] Ibid., 218. They also note the social implications of this (pp. 61–61)

> Mutual manifestness may be of little cognitive importance, but it is of crucial social importance. A change in the mutual cognitive environment of two people is a change in their possibilities of interaction (and, in particular, in their possibilities of future communication).

> Do not make your contribution more informative than is required.[66]

(Grice also had a 'maxim of relevance', meaning high cognitive effects.) It is not a new observation that people leave shared information implicit. We saw that Aristotle described this practice in his *Rhetoric*. Max Turner observed it for Paul, noting that Paul leaves many premises of his argument in Philemon implicit because his addressee already knows them and will draw on them where appropriate as 'unarticulated elements of their shared presupposition pool'.[67]

What Relevance Theory contributes is the principle that communicators normally craft expressions that will enable them to produce maximal cognitive effects in their audience while requiring from them a minimum of processing effort, and they do this by prompting them to infer the implicit content via accessible contextual premises and their implications. Conversely, the addressee will assume that the speaker has left implicit almost every assumption that she can be trusted to access from the context, and she will therefore try to infer the implicit information via contextual implications so as to recover the speaker's intended meaning.

Hermeneutical points

The principle of optimal relevance has implications for hermeneutics:

- The inferential process is driven and constrained by the cognitive principle of presumed optimal relevance.

  > This is the guiding and constraining principle that was needed by Schleiermacher and which is tacitly assumed by historical-grammatical interpreters.

- To infer the implicit content intended by an author, the exegete must contextualize the text by identifying the concepts and assumptions that (1) would have been readily accessible to his authorial audience and (2) would have yielded positive cognitive effects for them.
- To maintain the interest of their readers, it behooves authors, translators, and expositors to make their works easy to process and maximally rewarding in terms of positive cognitive effects.

  > It might be noted that the *Two Horizons New Testament Commentary* series rewards readers by focussing on the significance of the Bible for life and faith.

5.6. Intertextual assumptions

A person's cognitive environment can include familiarity with other texts. The familiarity of some texts and stories enables a speaker to implicate additional meanings to his addressee by simply mentioning a person or event from a well-known story or by echoing a phrase used in a

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[66] Grice, 'Logic and Conversation', in Peter Cole and Jerry L Morgan (eds.), *Syntax and Semantics 3: Speech Acts* (New York: Academic Press, 1975), 41–58.

[67] Turner, 'Hermeneutics', 49.

well-known text. This also helps to anchor new ideas within existing knowledge. Literary critics of classical literature have usually discussed this phenomenon under the rubric of *allusion*, especially where the evocation appeared to be intentional. De Beaugrande and Dressler introduced the term **intertextuality** 'to subsume the ways in which the production and reception of a given text depends upon the participant's knowledge of other texts'.[68] Eric Hirsch showed that one cannot understand English literature without an adequate degree of 'cultural literacy' built on familiarity with basic texts.[69] The same could be said for 'biblical literacy' built on familiarity with the biblical texts. Basil Hatim notes that intertextuality 'is all-pervasive and may be located on any level of linguistic description (phonology, morphology, syntax or semantics), and on any level of linguistic expression (word, phrase, clause, text, discourse, or genre)'.[70] Moyise describes various ways in which the term *intertextuality* has been used (and misused) in biblical studies.[71]

According to Osborne, 'There are approximately three hundred quotes in the New Testament and literally thousands of allusions.'[72] An example is Luke 17:32, in which Jesus communicates the gravity of his warnings through an **intertextual allusion** to an event narrated in Genesis, saying, μνημονεύετε τῆς γυναικὸς Λώτ 'Remember Lot's wife.' This woman had come to grief when she ignored a warning given to her by the angel of the Lord. Without a knowledge of the story of Lot's wife, the addressee cannot access the contextual assumption that when Lot's wife ignored a warning from God, she came to ruin; without this assumption the reader cannot make the analogical inference that ignoring a warning from Jesus could lead to ruin. Thus they cannot infer the gravity that Jesus attaches to his advice, nor the implication that his message is from God. The co-text of Luke is insufficient to communicate this; the reader must access information in the **intertext**.

As we saw earlier, when Jesus told the leper to 'offer for your cleansing what Moses commanded' (Mark 1:44), he expected the man to access information about this process in Leviticus 14. If the man had not known what Moses had commanded, perhaps by hearing this passage read in the synagogue, then he would not have known what to do. In 1 Kings 22:52 the author says that King Ahaziah 'walked … in the way of Jeroboam'. To understand what the

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[68] Beaugrande and Dressler, *Introduction to Text Linguistics* (Longman Linguistics Library, 26; London: Longman, 1981), 182.

[69] Hirsch, *Cultural Literacy: What Every American needs to Know* (Boston: Houghton Mifflin, 1987).

[70] Hatim, *Communication Across Cultures: Translation Theory and Contrastive Text Linguistics* (Exeter: University of Exeter Press, 1997), 200–201.

[71] Moyise, 'Intertextuality and the Study of the Old Testament in the New', *The Old Testament in the New: Essays in Honour of J.L. North* (Sheffield: Sheffield Academic Press, 2000), 14–41.

[72] Osborne, *The Hermeneutical Spiral: A Comprehensive Introduction to Biblical Interpretation* (2nd edn.; Downers Grove, IL: InterVarsity Press, 2006), 323.

author meant by that statement, the reader needs to know relevant parts of the story of Jeroboam, who lived a hundred years prior to Ahaziah.

John 3:14–16 says:

> And as Moses lifted up the serpent in the wilderness, so must the Son of Man be lifted up, that whoever believes in him may have eternal life. For God so loved the world, that he gave his only Son, that whoever believes in him should not perish but have eternal life.

What kind of 'lifting up' did John expect his readers to understand from ὑψόω in this context? There is nothing mentioned in this text or its co-text about crucifixion or death. In fact, the previous verse speaks of Jesus ascending to heaven and descending, which parallels the words 'lifted up' and 'gave' quite well. Yet readers familiar with the story of the crucifixion and with the story of the bronze serpent that Moses hung on a pole readily infer that this passage speaks of the necessity of the cross for salvation.

Hermeneutical points

- The exegete can benefit from a knowledge of the intertext that was mentally accessible to the original author and addressees, insofar as it is still available, in order to recognize and access intertextual assumptions evoked by the author to communicate contextual implications.
- The use of an allusion does not, however, entail that the author was seeking to evoke the original proposition or even a contextual assumption associated with it. This must be judged in each case. The allusion might be semantic, with little of the original propositional content (same senses, different references), or mostly verbal, with little of the original semantic content (i.e. same words, different senses).

5.7. Cognitive effects

As defined by Carston, a cognitive effect is a change in an individual's cognitive system that results from 'a fruitful (i.e. relevant) interaction between a newly impinging stimulus and a subset of the assumptions already in the cognitive system'.[73] Five kinds of cognitive effect may be recognized:[74]

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[73] Carston, *Thoughts and Utterances*, 377. In older works these were called **contextual effects**. Within the class of cognitive effects it is useful to distinguish positive cognitive effects, which ones that contribute 'positively to the fulfilment of [one's] cognitive functions or goals' (Sperber and Wilson, *Relevance*, 265.).

[74] Effects number 2, 3, and 4 are discussed in Sperber and Wilson, *Relevance*, 107–117. Sperber and Wilson, however, specify 'contextual implications' rather than 'new assumptions' and they do not mention the effect of weakening, only elimination. The fifth kind of cognitive effect, revision of existing assumptions, is discussed in Wilson, 'Relevance and Lexical Pragmatics', *UCL Working Papers in Linguistics*, 16 (2004), 343–360, 353. The first effect, contextual assumptions, is assumed by them to be

1. the affirmation of concepts and assumptions held by the addressee;
2. a strengthening of epistemic attitude towards previously held assumptions;
3. a weakening or elimination of previously held assumptions;
4. the revision of existing assumptions (i.e. new versions replacing older ones);
5. the addition of new assumptions.

It was discussed earlier that Luke 4 relates a speech event in which Jesus reads Isaiah 61:1–2, which was understood by many to foretell the Messiah, and says, 'Today this Scripture has been fulfilled in your hearing'. As an example of adding new assumptions, consider how the cognitive systems of the members of the synagogue might have processed the speech event related:

- explicit premise: Jesus said Isa 61:1–2 was fulfilled this day as they listened.
  contextual premise: They had just been listening to Jesus.
  contextual implication: Jesus implied that Isa 61:1–2 was now fulfilled in himself.
- inferred premise: Jesus implied that Isa 61:1–2 was now fulfilled in himself.
  contextual premise: Isa 61:1–2 is a messianic prophecy.
  contextual implication: Jesus implies that he is the Messiah.

The contextual premises above are assumptions that were already part of the audience's cognitive environment and which Jesus affirmed by presupposing them without correction. Since he brought them into their thought processes, they are part of the information that he communicated. Recall that all normal communications include presupposed information. The one explicit premise and the two contextual implications are new information to be added to the addressee's knowledge. It is evident that an implication can serve as an inferred premise for another implication, resulting in an inferential chain. Insofar as the speaker (Jesus) intended to produce these cognitive effects, they are all part of the speaker's meaning, and the implications may be called implicated conclusions or implicatures.

An example of a weakened or eliminated assumption can be found in Genesis 18:10–14:

> [10]The LORD said, "I will surely return to you about this time next year, and Sarah your wife shall have a son." And Sarah was listening at the tent door behind him. [11]Now Abraham and Sarah were old, advanced in years. The way of women had ceased to be with Sarah. [12]So Sarah laughed to herself, saying, "After I am worn out, and my lord is old, shall I have pleasure?" [13]The LORD said to Abraham, "Why did Sarah laugh and say, 'Shall I indeed bear a child, now that I am old?' [14]Is anything too hard for the LORD? At the appointed time I will return to you about this time next year, and Sarah shall have a son."

Sarah's initial response to the prediction indicates that she engaged in a chain of inferences that could be represented by syllogisms as below. Note that some of the premises are made explicit by the Sarah herself or by the narrator.

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part of the meaning, and it is obviously evoked to cognition, but Sperber and Wilson do not discuss it as a cognitive effect.

(4)	contextual premise:	Women who bear children must first have conceived them.
	explicit premise:	It is predicted that Sarah will bear a son.
	contextual implication:	It is predicted that Sarah will conceive.
(5)	contextual premise:	Old women cannot conceive.
	explicit premise:	Sarah is an old woman.
	contextual implication:	Sarah cannot conceive.
(6)	contextual premise:	Barren women cannot conceive.
	contextual premise:	Sarah is a barren woman. [noted in the co-text]
	contextual implication:	Sarah cannot conceive.
(7)	contextual premise:	Couples cannot conceive without having sex.
	explicit premise:	Sarah and Abraham are too old and 'worn out' to have sex.
	contextual implication:	Sarah and Abraham cannot conceive.
(8)	inferred proposition:	Sarah and Abraham cannot conceive.
	explicit proposition:	God said that Abraham and Sarah will conceive.
	contradiction:	What God said is not possible.

The result of this process is that Sarah has a new assumption, the prediction of having a son, but she doubts it because it contradicts other assumptions. In cognitive terms, her epistemic attitude towards it is low, even though her deontic attitude towards it is high (hence the laughter).

In verse 14a, however, the LORD denies the assumption that this is not possible for him, and he also revises the consequent, namely that *some things* are too difficult for him to do, replacing it with the proposition that *nothing* is too difficult for him to do.

(9)	analytic implication:	If God cannot enable them to conceive, then some things are too difficult for God.
	explicit premise:	God says it is false that some things are too difficult for him.
	contextual premise:	Whatever God asserts is true.
	implication:	It is false that God cannot enable them to conceive.
	implication:	God can enable them to conceive.

This final implication is presented as a replacement for Sarah's belief that God cannot enable them to conceive.

An example of strengthening is provided in the LORD's repetition in 14b of the prediction made in verse 10, expressed as 'Sarah shall have a son'. The cognitive effect cannot be to add a new assumption, because this proposition has already been presented in verse 10. It is clear, in fact, that the speaker's intent is to reassure Abraham and Sarah of the truth of the proposition that had previously been made. In that case the intended cognitive effect is to strengthen their epistemic attitude towards the proposition.

When a speaker uses an assertion to produce cognitive effects in the working memory of the addressee, they come, as it were, as commendations. The addressee must still decide whether to accept those effects into the network of assumptions in her own long-term memory, and if so, whether to accept them as they are or in a mitigated form. If the assertion comes from a trusted source, contributes to her cognitive goals, and coheres with her other beliefs, then it is likely to be accepted without further evaluation. In the case of Sarah, she was initially reluctant to accept the proposition with much confidence because it conflicted with her other beliefs; after receiving further assurance, however, her propositional attitude was presumably strengthened.

Hermeneutical implications

It should be noted that in (4) – (8) above, the contextual assumptions are presupposed from the context of the addressee, the explicit assumptions are asserted by the speaker, and the implications are produced by the logical interplay of the two. Thus there were three basic sources for the information that was communicated, and these could be viewed as the speaker's meaning. This seems complicated, but as Ronald Sim has noted, 'No model that deals with stimulus, context, and inference less expressly than this can succeed in modelling communication adequately'.[75] In the original event, of course, the inferential processes would have been largely unconscious and automatic, but *exegesis is a controlled process in which the original communicative processes are consciously reconstructed for the purpose of recovering authorial meaning.*

An author's informative intent, his 'authorial meaning', may be viewed as consisting of five kinds of cognitive effect in the minds of his audience, (which occurred in somewhat this order in the case of Sarah):

1. the affirmation of concepts and assumptions currently held by the audience (e.g. Sarah is old).
2. the addition of new assumptions (e.g. Sarah will have a son);
3. the revision of previously held assumptions (No things are too difficult for God);
4. the weakening or elimination of previously held assumptions (God cannot enable her to conceive);
5. a strengthening of epistemic attitude towards previously held assumptions (e.g. Sarah *really will* have a son).

These five kinds of cognitive effect correspond to five different communicative functions, which we can characterize as affirmative (or presuppositional), additive, replacive, eliminative, and supportive. These may be viewed as five varieties of assertive speech act, and all of them are exemplified in the speech event reported in (14) above. It might be noted that many languages

[75] Sim, 'Modeling the Translation Task', 119.

have formal ways of marking information structure that differentiate among these five functions.

5.8. Implicatures

As defined by Horn, 'implicature is a component of speaker meaning that constitutes an aspect of what is meant in a speaker's utterance without being part of what is said.'[76] Several examples above have exemplified the way speakers use implicatures to communicate much of their meaning. In these the speaker **manifestly** intended for the addressee to derive a particular contextual implication as part of his meaning. In such a case we say the speaker **implicated** that contextual implication, and that he implicated the contextual co-premise that helps imply it. These two kinds of implicature can then be specified as **implicated premises** and **implicated conclusions**. A hearer can infer a broad range of contextual implications, but the term *implicature* denotes those which were manifestly intended by the speaker and without which the utterance would fail to satisfy the presumption of relevance. Sperber and Wilson summarize this as follows:

> An implicature is a contextual assumption or implication which a speaker, intending her utterance to be manifestly relevant, manifestly intended to make manifest to the hearer.[77]

So contextual assumptions and contextual implications are not considered to be implicatures unless it is manifest to the addressee that the speaker must have intended his contextualized utterance to evoke these assumptions in her mind.

Consider for example the pericope in Luke 7:11-17 (NIV):

> [11]Soon afterward, Jesus went to a town called Nain, and his disciples and a large crowd went along with him. [12]As he approached the town gate, a dead person was being carried out—the only son of his mother, and she was a widow. And a large crowd from the town was with her. [13]When the Lord saw her, his heart went out to her and he said, "Don't cry." [14]Then he went up and touched the coffin, and those carrying it stood still. He said, "Young man, I say to you, get up!" [15]The dead man sat up and began to talk, and Jesus gave him back to his mother. [16]They were all filled with awe and praised God. "A great prophet has appeared among us," they said. "God has come to help his people." [17]This news about Jesus spread throughout Judea and the surrounding country.

Verse 15a says, ἀνεκάθισεν ὁ νεκρὸς καὶ ἤρξατο λαλεῖν 'The dead man sat up and began to talk …' Luke evidently expected his audience to process this statement logically in their own cognitive faculties something along the following lines (please excuse the tedium):

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[76] Horn, 'Implicature', 3.

[77] Sperber and Wilson, *Relevance*, 194–195.

(10)	contextual premise:	Dead men do not sit up or talk.
	explicit premise:	The man sat up and began to talk.
	contextual implication:	The man was not dead.
(11)	inferred proposition:	The man was alive after Jesus spoke to him.
	explicit proposition:	The man was dead before Jesus spoke to him.
	conjunctive synthesis:[78]	The man revived from death.
	explicit premise:	The man sat up.
	conjunctive synthesis:	The man revived from death and sat up.
(12)	inferred premise:	The man revived from death and sat up.
	explicit premise:	Jesus commanded the man to sit up. (from co-text)
	inference of causation:	Jesus' command caused the man to revive and sit up.

The implicated conclusion, then, is that Jesus raised the dead man to life, and this is what comes to mind, meaning to conscious thought. All of this information, however, was implicated by the three explicit propositions, underlined above, and all of it is essential to recovery of the final implicature, that Jesus raised the man to life. The next verse says the people 'were all filled with awe'. The reason for that must be that they witnessed the miracle of a dead man being raised to life. This makes it manifest that the author intended the readers to infer the conclusion that Jesus had raised the man to life, and we can therefore conclude that it is an implicature and part of the authorial meaning. This justifies the common practice in English Bibles of entitling the pericope 'Jesus Raises a Widow's Son', even though the text does not state that Jesus did this.

This example is simple, but it illustrates the exegetical procedure of reconstructing details of the cognitive processing involved in the comprehension of utterances in their intended context. A doubter might object, saying it is intuitively evident that Jesus raised the man to life and so there is no need for such analysis, but appeals to intuition are of little value when exegetes disagree about the author's meaning. The whole point of introducing cognitive processes of communication into biblical hermeneutics is to provide conceptual tools that can be used to help support or falsify competing intuitions by facilitating analysis of meaning in context. Otherwise one is left, as now, with competing plausible interpretations, each appealing to intuition, without cognitive principles of interpretation to help arbitrate among them.

Hermeneutical implication

The reconstructionist exegete has a goal of recovering the authorial meaning insofar as possible. Much or most of this meaning is implicit rather than explicit, including many of the

[78] A synthetic implication is one derived from two or more premises. In this case it is also analytic, because the intended sense of the word *revive* is to be alive after having been dead. The words *resuscitate* and *resurrect* carry this sense more focally.

author's main points. A sociocognitive hermeneutic incorporating principles of relevance and implicature can provide conceptual tools for this task.

5.9. Meaning versus significance

Hirsch defined a hermeneutical distinction between meaning and significance as follows:

> *Meaning* is that which is represented by a text; it is what the author meant by his use of a particular sign sequence; it is what the signs represent. *Significance*, on the other hand, names a relationship between that meaning and a person, or a conception, or a situation, or indeed anything imaginable.[79]

This distinction has been taken up by other hermeneuts, such as Kaiser and Vanhoozer,[80] and it is a useful one to make, but defining the boundaries has proved elusive outside of a Relevance-Theoretic framework. Hirsch leaves the outer boundary of significance quite open-ended with his remark that it is a 'relationship between that meaning and … anything imaginable'.

More problematic is the boundary between meaning and significance. Over the years Hirsch has expanded the domain of 'meaning' at the expense of 'significance'.[81] Vanhoozer, on the other hand, defines it more narrowly:

> *The meaning/significance distinction is fundamentally a distinction between a completed action and its ongoing intentional or unintentional consequences.* [italics original][82]

By splitting the author's intentions between meaning and intended significance, Vanhoozer leaves it nearly impossible to identify either of them. His definition of meaning is that 'the meaning of a text is what the author attended to in tending to his words',[83] and while this has merit, it does not actually help the exegete to distinguish between intended meaning and intended significance or between intended significance and unintended significance.

On the other hand, the sociocognitive framework presented so far already includes Hirsch's distinction as a natural consequence. Authorial meaning consists of the explicatures and implicatures that arise from the text when interpreted within its envisaged context. That context is a set of accessible concepts and beliefs that the author expected his authorial audience to activate and use in the course of comprehending what he meant to communicate through his

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[79] Hirsch, *Validity in Interpretation*, 8.

[80] See Kaiser and Silva, *Introduction to Biblical Hermeneutics: The Search for Meaning* (Grand Rapids: Zondervan, 1994), 41–43; Vanhoozer, *Meaning in this Text*, 259–263; Harris, *Interpretive Acts: In Search of Meaning* (Oxford: Clarendon Press, 1988), 169f; Stein, 'Author-Oriented Approach'. Stein uses the term *implications* for what Hirsch called 'significance' and uses *significance* for the reader's response. He subsumes both under 'application'.

[81] See Hirsch, 'Meaning and Significance Reinterpreted', *Critical Inquiry*, 11 (1984). and Hirsch, 'Transhistorical Intentions and the Persistence of Allegory'.

[82] Vanhoozer, *Meaning in this Text*, 262.

[83] Ibid., 262.

text to them, namely the speech acts and their content. Explicatures are speech acts and beliefs that are at least partially encoded in the text. Implicatures are ones that are not encoded. These are of two sorts: contextual premises and contextual implications manifestly implicated by the author. These explicatures and implicatures stimulate cognitive effects in the mind of the audience and constitute the meaning.

The context, however, is a small part of the cognitive environment. Readers have vast numbers of concepts and assumptions. The authorial meaning can interact inferentially with them as well to produce contextual assumptions that were not implicated by the author. These additional cognitive effects correlate with what Hirsch called significance. In other words, the significance of authorial meaning consists of any additional cognitive effects that result from the implications of that meaning which the author did not manifestly intend. We can define exegesis as the task of recovering the meaning; in contrast, the tasks of hermeneutics are recovering the meaning, discerning its significance for oneself or others, and helping others to discover both the meaning and its significance for them.

A simple example is exemplified in Genesis 24. Abraham has sent his steward on a long journey to find a suitable bride for Isaac from among Abraham's relatives. The steward prays for guidance and ends up speaking to a young woman. He asks (v. 23), 'Please tell me whose daughter you are.' She responds (v. 24), 'I am the daughter of Bethuel the son of Milcah, whom she bore to Nahor.' The steward is a stranger to the village and unknown to Rebekah, and there is nothing manifest in the text to suggest that Rebekah intended to implicate any specific assumptions or conclusions. The steward, however, finds further significance in her remark by inferring the contextual implication that she is Abraham's great niece (v. 27).[84] It was not Rebekah's intention to communicate this, and she did not know that the man to whom she spoke even knew of Abraham, Bethuel, and Nahor. His recognition of who she is was further significance that he derived from what she communicated.

Hermeneutical points

Some important conclusions can now be drawn:

- *The locus of authorial meaning is the author's explicatures and implicatures, as implicated by the text within the context of the authorial audience.*
- *Significance consists of contextual implications of the authorial meaning itself, based on assumptions outside the context envisaged for the authorial audience.*

[84] Narrated dialogues result in communications embedded within communications, each with its own cognitive environment, etc.

5.10. Conclusions

This sociocognitive hermeneutic has developed to the point of enabling us to define the task of exegesis as reconstructing, insofar as possible, the cognitive environments of the author and the authorial audience and the comprehension process which the authorial audience would most likely have followed to infer the author's intended context and informative intentions. This constitutes a consciously controlled reconstruction of what was originally a largely automatic process beneath the conscious awareness of the original author and his audience. Of particular interest, however, is the claim that *the context is the author's model context of his idealized authorial audience*. Thus the exegete is not greatly hindered by her lack of knowledge of individual readers or how they actually understood the author, because she can reconstruct much of the general cognitive environment from historical research, and she can reconstruct most of the authorial context within that cognitive environment on the basis of clues in the information structure of the text itself.

This definition of exegesis contrasts with some postmodern theories of hermeneutics, such as deconstruction and radical reader-response, which dismiss authorial intent and which license readers to interpret the text in accord with their own cognitive environments. It contrasts with structuralist and text-centred approaches to exegesis because the meaning it seeks to recover is not found in the words of the text but in inferences of the author's meaning that are based on both the utterance and the original context. It gives cognitive support to observations of the importance of context made by experienced scholars:

> People who think they can understand Jesus' words and acts, stripped of the historical Jewish context in which he uttered and performed them, condemn themselves to misunderstand him...[85]

Yet this definition goes beyond other pragmaticist approaches to the use of context in exegesis by articulating the role of relevance and authorial context in the reconstruction of authorial meaning.

Thus a reconstructive, sociocognitive model of hermeneutics differs significantly from 'text-sense' and 'reader-response' theories of hermeneutics. Ricoeur, for example, while acknowledging 'the psychological and sociological priority of speech' in spoken forms,[86] claims that authors write, not for a particular audience, but 'for anyone who can read'.[87] He further claims that 'writing renders the text autonomous with respect to the intention of the

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[85] Turner, 'Hermeneutics', 64.

[86] Ricoeur, 'What is a Text? Explanation and Understanding', in John B. Thompson (ed.), *Hermeneutics and the Human Sciences: Essays on Language, Action, and Interpretation* (Cambridge and New York: Cambridge University Press, 1981), 145–164, 146.

[87] Ricoeur, 'Appropriation', in John B. Thompson (ed.), *Hermeneutics and the Human Sciences: Essays on Language, Action, and Interpretation* (Cambridge and New York: Cambridge University Press, 1981), 182–195, 182.

author', frees it from 'psychological meaning', and 'decontextualizes' it, such that it 'transcends its own psychosociological conditions of production and thereby opens itself to an unlimited series of readings' by being 'recontextualized' to 'different sociocultural conditions'.[88] This no doubt happens when naïve readers interpret literary texts, but the goal of reconstructive hermeneutics is to recover as well as possible the 'psychological meaning' that was communicated within the 'psycho-sociological conditions' of the text's production. To deny this possibility is to deny the possibility of investigating any past events, whether communicative or not.

The sociocognitive definition of exegesis that I have described provides cognitive support for intuitive definitions of exegesis that have been proposed by France and Fee, among others:

> We are taking 'exegesis' to mean the discovery of what the text means in itself, i.e. the original intention of the writer, and the meaning the passage would have held for the readers for whom it was first intended. (France)[89]
>
> Exegesis, therefore, answers the question, What *did* the biblical author *mean*? It has to do both with *what* he said (the content itself) and *why* he said it at any given point (the literary context). Furthermore, exegesis is primarily concerned with intentionality: What did the author *intend* his original readers to understand? (Fee)[90]

Yet the sociocognitive model of exegesis that I am presenting goes beyond the model of France and Fee in recognizing that contextual assumptions and optimal relevance play a central role in the communication of meaning and that their reconstruction is critical to its recovery. In other words, the author did not just produce a text whose interpretation may be influenced by the cognitive environment; rather, he chose particular contextual assumptions and produced a text that fit that context, so that the text and contextual assumptions together would implicate the meaning which he wanted to convey to his addressees.[91] It comes closest to the definition of exegesis given by Cotterell and Turner:

> We may therefore state that our goal is to discover what we may call the *discourse meaning* of , say, 1 Corinthians ... We wish to know not what the wording of 1 Corinthians could be taken to mean by a reader without knowledge of the context, but what it would necessarily mean to a competent judge from the contemporary Corinthian church, to one who grew up knowing Hellenistic Greek, who was aware of the church situation to which Paul was addressing his remarks, and who would know the history of the relationship between Paul and that church and what Paul had taught there.[92]

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[88] Ricoeur, *From Text to Action*, 83.

[89] France, 'Exegesis in Practice: Two samples', in I. Howard Marshall (ed.), *New Testament Interpretation* (Exeter: Paternoster Press, 1979), 252–281, 252.

[90] Fee, *New Testament Exegesis; A Handbook for Students and Pastors* (Philadelphia: Westminster, 1983).

[91] See Sperber and Wilson, *Relevance*, 16.

[92] Cotterell and Turner, *Linguistics*, 64.

Elsewhere Turner describes 'meaning' as 'text + relevant situation and conventional elements of the presupposition pool'.[93] This intuitive insight clearly corresponds to the relevance-theoretic definition in this chapter, that authorial meaning consists of the explicatures and implicatures implicated by the author's text within the original context.

It is somewhat ironic that while relativistic philosophers, literary critics, and hermeneuts have been rejecting both the value and possibility of recovering an author's informative intentions, cognitive scientists and communication theorists have been learning that speakers communicate by giving their addressees clues to their informative intentions, and that the addressees infer these intentions in a context-based cognitive process that is usually quite successful. As Dan Sperber observes, 'Humans can no more refrain from attributing intentions than they can from batting their eyelids.'[94]

The modern interpreter of the Bible is not the direct addressee of the authors, even if she does perceive God speaking to her through it, because she does not share the authorial context, but she is nevertheless in a position to reconstruct the original context-based cognitive processing, using where needed the procedure described in the next chapter. This possibility of reconstruction is the result of the two 'cognitive revolutions' in much of the academic world, and it is clearly relevant for hermeneutics. It is one more reason why biblical hermeneutics should be grounded in the sociocognitive sciences. Another reason will be seen in Chapter 7, in which the sociocognitive processes of communication, especially contextualization, explication, and implication, are used to develop models for the translation and exposition of Scripture.

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[93] Turner, 'Hermeneutics', 50.

[94] Sperber, 'Understanding Verbal Understanding', 185.

6. Hermeneutics and Individual Cognition of Communicative Events

Hermeneutics can be regarded as … the art of understanding another person's utterance correctly.
— Schleiermacher, 1826[1]

Sentence comprehension is like riding a bicycle—a feat far easier performed than described.
— Anne Cutler, 1976[2]

We have seen that an author composes a text for an envisaged audience in such a way that it will foster certain cognitive effects in their minds when processed by them inferentially in a context accessible to them from their cognitive environment. These cognitive effects may be called the authorial meaning. The processing itself is called **comprehension**, and the effects constitute their understanding of the information being communicated by the author, i.e. his meaning. The goal of sociocognitive exegesis is to reconstruct the cognitive process by which the authorial audience would have comprehended the author's informative intentions in their context. The original comprehension process was largely automatic and beneath conscious awareness, as was the author's anticipation of that process, but the exegetical process is a consciously controlled reconstruction of it, based on research into the cognitive environments of the author and his authorial audience and a knowledge of the processes of comprehension. Biblical scholarship has made considerable progress with regard to knowledge of the biblical cognitive environments, but very little with regard to modelling the cognitive processes involved.[3] This present chapter will discuss the processes of comprehension and how they can be modelled in exegesis.

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[1] Schleiermacher, *Hermeneutics and Criticism*, 5. This is in addition to 'the art of communicating someone else's utterance to a third person'.

[2] Cutler, 'Beyond Parsing and Lexical Look-up: An Enriched Description of Auditory Sentence Comprehension', in R. J. Wales and Edward Walker (eds.), *New Approaches to Language Mechanisms : A Collection of Psycholinguistic Studies* (Amsterdam and New York: North Holland, 1976), 133–149, 133.

[3] See however the advocacy for communicative hermeneutics in Green, 'Context and Communication', in Stanley E. Porter (ed.), *(untitled volume)* (Sheffield: Academic Press, forthcoming); Brown, *Scripture as Communication*.

6.1. The comprehension process

The previous chapter mentioned propositions, explicit premises, and explicatures without defining them in much detail, but we cannot reconstruct them without first agreeing on what they are. The philosophical definition of propositions is that they are the content of propositional attitudes and the bearers of epistemic status. A proposition is taken to correlate with some state of affairs in some referential world, whether the real world, a fictional world, or a reconstructed historical world. A state of affairs can be an event or a state. A proposition includes articulated referents such as Frodo and may include unarticulated referents such as the time and place. The proposition that Queen Elizabeth II lives in the United Kingdom implicitly pertains to the time of writing that statement. From a cognitive perspective, propositions are encoded in a person's cognitive system as neural configurations of concepts and schemata, generally with some epistemic attitude.

Sentences and sentence fragments are not themselves propositions. They are just strings of lexemes in a syntactic structure. To derive a proposition requires two parallel, iterative processes: linguistic decoding and pragmatic inference. The linguistic decoding translates the words and syntactic structures into lexical concepts embedded into argument slots in semantic frames. Since words and syntactic structures are often polysemous, there are usually several decodings to consider. The result of the decoding process is a set of lexico-conceptual structures, which are sometimes called **semantic representations**.[4] The process of pragmatic inference, which Sperber and Wilson call **enrichment** (or **explication**), selects referents for referential expressions and for unexpressed arguments in the semantic frame. This results in what Sperber and Wilson call a **basic explicature**, and this corresponds to a proposition.

6.1.1. Decoding utterances

Decoding results in a set of semantic representations. Note that the term **semantic** is used to refer to the concepts conventionally associated with the particular lexemes, structures, and intonation patterns in the utterance, i.e. its multiple possible senses rather than its intended senses and referents.[5] Thus it denotes the descriptive and referential potential of an expression rather than the descriptive and referential intent of the speaker who uttered that expression on a particular occasion. This latter is a **pragmatic** interpretation, and it must be inferred rather than decoded, which is another task.

The goal of decoding is to identify the concepts associated with the lexemes that the speaker used. The usual strategy is for the addressee to assume the conventional public versions of the concepts, or lacking that, to assume her own versions of the concepts, unless she is aware

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[4] For discussion see Sperber and Wilson, *Relevance*, 72–73. They also use the term *incomplete logical form*.

[5] Robyn Carston describes the decoding process in Carston, *Thoughts and Utterances*, 57.

of the speaker's personal concepts, in which case that takes precedence. For example, unless one knows the speaker or something about him, it might be difficult to interpret his concept of JUSTICE in a remark such as 'I desire more justice in our society'. Similarly exegetes of the Bible cannot assume that all of the biblical authors shared the exact same lexical concepts. *On the contrary, they need to become familiar as far as possible with the conceptualizations held by the individual authors, even if the differences are small.*

Concepts that are homonymous (associated with the same lexeme) usually belong to different semantic fields, and the domain of usage disambiguates them. According to Louw and Nida, the Greek word κόσμος has seven senses, each in a different semantic 'domain':[6] (a) universe: UNIVERSE, (b) geographical objects: EARTH, (c) behaviour: WORLD SYSTEM, (d) human beings: PEOPLE (of the world), (e) features of objects: ADORNING, (f) artefacts: ADORNMENT, and (g) quantity: TREMENDOUS AMOUNT.[7]

As noted in Chapter 3, from the perspective of **frame semantics**[8] one could say that lexemes and their associated concepts are associated with **semantic frames**.[9] For example, the

[6] Most semanticists would use the term *semantic field* for a set of conceptual coordinates and *semantic domain* for a conceptual schema. For example, HAMMER would belong in the semantic field of tools but in the semantic domain of carpentry. These involve two different sets of conceptual relations.

[7] Louw and Nida (eds.), *L&N* 2:146. On page xv of the introduction to their dictionary, Louw and Nida give the Greek example of σάρξ, for which they distinguish eight different meanings in the NT, glossing them as (a) flesh, (b) body, (c) people, (d) human, (e) nation, (f) human nature, (g) physical nature, and (h) life. They locate these meanings in the following semantic domains: (a) body parts, (b) bodies, (c) people (human or supernatural), (d) humans, (e) kinship groups, (f) psychological faculties, (g), natural characteristics, (h) physiological states.

[8] Although it has antecedents, the theory of frame semantics originates with Fillmore, 'Frame Semantics and the Nature of Language'. A more recent description is found in Fillmore and Baker, 'Frame Semantics for Text Understanding', *Proceedings of WordNet and Other Lexical Resources Workshop* (North American Chapter of the Association for Computational Linguistics, 2001). A good overview is provided in Croft and Cruse, *Cognitive Linguistics*, 7–39. A detailed presentation of the application of frame semantics to FrameNet lexicography may be found in Ruppenhofer et al., *FrameNet II: Extended Theory and Practice* (Berkeley: University of California Press, 2006).

[9] A semantic frame corresponds to a predicate-argument structure of a sentence at the semantic level (as opposed to argument structure at the syntactic level). Other terms in the literature for semantic frame include *conceptual frame*, *predication frame*, *thematic structure*, and *semantic structure*. A semantic frame could be viewed as a subset of a larger knowledge structure, variously known as a 'conceptual frame' or just 'frame' (John Taylor and AI in general), as a 'conceptual domain' (Ronald Langacker), or as a 'scenario'. All of these need to be distinguished from the 'semantic domains' or 'semantic fields' of L&N and *SDBH*; these latter are categories in an ontological hierarchy.

verbs *buy* and *sell* occur with a commercial transaction frame that includes the following **frame elements** (also called **semantic roles** or **participant roles**):[10]

> Goods, Buyer, Seller, Money (a purchase price), Means of paying (such as cash)
> Purpose for the goods, Purpose for the transaction

So even if some of these elements are not explicitly mentioned in an utterance that uses *buy* or *sell*, their existence is presupposed by use of that verb because its conceptual meaning includes the frame.[11] For example, if a speaker says, 'I sold my car', the addressee can respond by asking 'To whom? For how much?' 'Why?' In addition there are frame elements common to all event frames, such as Time and Place of occurrence. If these are not explicitly mentioned, they are nevertheless implied by the frame, and one can always ask, 'When did it happen?' and 'Where?'

It should be evident that a particular role may require that its fillers be from certain semantic fields. The Seller and Buyer, for example, must be people, and the Money must be something of value that can be used in trade. As a result, when a lexeme occurs in a particular role in a particular frame, not all of its associated concepts are available as possible interpretations, but only those from semantic fields which can be allowed in that role.

In John 1:29, John the Baptist directs the attention of his disciples to Jesus and announces:

> ἴδε ὁ ἀμνὸς τοῦ θεοῦ ὁ αἴρων τὴν ἁμαρτίαν τοῦ κόσμου.
> Behold, the Lamb of God, who takes away the sin of the world!

The frame for the lexeme ἁμαρτία 'sin' includes a Perpetrator, who is the Agent of the sin, and this must come from the semantic domain of people (i.e. sentient beings). So when decoding κόσμος 'world' in John 1:29 above, although there are seven concepts associated with the word, only one comes from the required semantic domain. Thus frame semantics provides a framework for empirical research into the semantic frames of lexical concepts in biblical languages, a way of recovering unarticulated arguments of explicatures, and a way of disambiguating among the lexical concepts of the articulated arguments.

Lexemes such as *good* and *big* are vague rather than polysemous. Their meaning can vary by degrees according to context, so they have a broad range of contextual variants. Many temporal words are flexible in scope, words such as *now*, *soon*, and *quickly*. In Hebrew the time word יוֹם 'day' is very flexible in scope, as exemplified by its varying scopes in Genesis 2:4, 17; 3:8; 4:14 (period of time, whenever, daytime, today). The conceptual meaning of the word *good* varies in accord with what it modifies. Even in a static phrase like *good behaviour* its

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[10] These 'frame elements' are taken from the Commercial Transaction frame in the FrameNet dictionary at http://www.icsi.berkeley.edu/framenet/. The FrameNet dictionary is based on semantic analysis of participant roles in the sentences of a large corpus of English texts.

[11] The BUY and SELL frames differ in that in the frame for BUY, the Buyer is viewed as the one who controls the transaction and determines it purpose, whereas in the frame for SELL it is the Seller who is viewed as controlling the transaction and determining it purpose.

meaning can vary, depending on whether this behaviour is predicated of an adult, an adolescent, a child, a baby, or the family dog, who perhaps refrained that day from drinking out of the toilet, jumping on guests, and barking at the postman.

Sentences can also be ambiguous between different syntactic structures, each with its own meaning. For example, 'Sally read the book on the chair' is ambiguous between 'Sally read the book which was on the chair' and 'Sally read the book while sitting on the chair'. A similar ambiguity exists in the headline 'Enraged cow injures local farmer with axe'. This utterance could represent two different syntactic structures, each of which corresponds to a different combination of semantic frames. The reader can draw on assumptions in her cognitive environment to evaluate the most relevant semantic structure, and that in turn will indicate which syntactic structure was most likely intended.

In summary, the task of decoding an utterance is to identify the possible concepts, frames, and roles that are involved as well as the possible scopes of contextualization of concepts. This results in a set of possible semantic representations for the utterance, most of them still too incomplete and ill-defined to represent a proposition. They have a high degree of **pragmatic ambivalence** which the interpreter still needs to resolve. For example, she needs to select among the possible concepts, determine their contextualizations, select among the potential referents of referential expressions, and infer the speaker's propositional attitude and illocutionary point (speech act). But before the hearer can do that, she must ground the semantic representation in a potential context.

6.1.2. Grounding: Selecting a contextual setting for enrichment

Consider again the sentence 'Sally read the book.' A semantic representation for this, if expressed in English, would be something like the following:

> Someone called 'Sally' read some book (identifiable to the addressee) at some time in the past in some location for some purpose at some rate of speed over some period of time.

There are many books in the world, and many people called 'Sally', and the semantic representation does not identify which ones are the intended referents. Referential expressions themselves do not refer; rather, they are used by speakers to refer to something. To identify the referents, the hearer must first **ground** the semantic representation in a context of potential referents and then select the most relevant ones (which are generally the most accessible ones).

Although the RT literature discusses the need to draw on 'context' to resolve references and ambiguities, the task of selecting a context for this purpose has been assumed rather than elaborated.[12] The term *contextualization* could have been used for this, but in RT this term is

[12] Sperber and Wilson (Sperber and Wilson, *Relevance*, 181.) mention the role of context as follows: '[Assumptions] are constructed inferentially, by using contextual information to complete and enrich this

reserved for the task of identifying contextual assumptions. In Cognitive Semantics the term **grounding** is used for the task of identifying the 'ground' or 'field' or 'domain' against which an object or event may be 'profiled', and this seems to describe the task at hand. So we can say that the addressee **grounds** the semantic representation in a context within her cognitive environment.[13]

6.1.3. Enrichment: Resolving references and ambiguities

Once the addressee has grounded the semantic representation in a tentative context, she can **enrich** or **explicate** the representation by making hypotheses regarding (1) the most relevant concept from among those available for each polysemous lexeme, (2) the specific values of vague concepts, and (3) the referents in the various semantic roles, including implicit ones.[14] Although the process is iterative, the final result is a basic explicature which constitutes the explicit content of the sentence. It corresponds to one or more propositions.

As was noted with regard to the Commercial Transaction frame, speakers do not always mention referents for each of the semantic roles in a frame, yet their use of a lexeme that evokes the Commercial Transaction frame shows they have conceptualized the event as including those participant roles. Otherwise the speaker would have chosen a different lexeme, one associated with a different semantic frame. Often the speaker expects the addressee to infer the referents herself from the context. Luke (at 12:20) relates the following from a parable of Jesus:

> But God said to him, 'Fool! This night your soul is required of you, and the things you have prepared, whose will they be?'

This uses a verb form ἀπαιτοῦσιν in which the Agent is left implicit. The most relevant referent in this context is God, and the reader may infer that God is one who is requiring his soul. The mention of death and property also evokes an inheritance frame.

In actual conversation people often leave many elements of a semantic representation unexpressed but nevertheless implicit. In Matthew 15:34, for example, Jesus wants to care for 4,000 hungry people who have come out to hear him, and so he asks his disciples, 'How many loaves do you have?' They answer, ἑπτὰ καὶ ὀλίγα ἰχθύδια 'Seven, and a few small fish.' From this meagre noun phrase Jesus was able to infer a whole proposition. Basically he inferred that they were using the same Possession frame that he had used in the question and then he inferred

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logical form into a propositional form, which is then optionally embedded into an assumption schema typically expressing an attitude to it.' They do not, however, mention the need to identify an appropriate context to use as a basis for enriching the semantic representation into a proposition.

[13] The traditional RT approach is to identify this subset as the mutual cognitive environment, meaning the set of assumptions which the speaker and the addressee both hold and know that each other holds, as defined in Sperber and Wilson, *Relevance*, 41–42.

[14] For more examples of enrichment see Wilson, 'New Directions', 376.

the implicit referents for the Owner, Possession, and Time roles, resulting in a proposition equivalent to ‘We currently have seven loaves and a few small fish.’

Often the hearers cannot infer the identity of the participants who might fill the implicit roles in a frame. In the example ‘John kissed Sally’, in the absence of any informative context, a reader cannot know which Body Part was involved. Perhaps he kissed her on the hand. What they can know is that he kissed her somewhere. But when the Bible recounts men kissing their brothers in greeting, we can infer from the cultural context and from other clues that they were kissing on or near the cheek.[15]

The speaker can leave gaps in the sentence structure as well, even leaving the verb to be inferred by the addressee. Consider, for example, Matt 25:16–17:

> πορευθεὶς ὁ τὰ πέντε τάλαντα λαβὼν ἠργάσατο ἐν αὐτοῖς καὶ ἐκέρδησεν ἄλλα πέντε· ὡσαύτως ὁ τὰ δύο ἐκέρδησεν ἄλλα δύο.
> He who had received the five talents went at once and traded with them, and he made five talents more. So also he who … the two … made two … more.

Here the reader is expected to fill in the gaps of the semantic representation with terms or concepts equivalent to *received*, *talents*, and *talents*. In that case, the addressee could just look for suitable words in the preceding co-text, but it is not always that simple. Consider Matt 10:25b:

> εἰ τὸν οἰκοδεσπότην Βεελζεβοὺλ ἐπεκάλεσαν, πόσῳ μᾶλλον τοὺς οἰκιακοὺς αὐτοῦ.
> If they have called the master of the house Beelzebul, how much more … those of his household.

There is no predicate in the second clause, and this ellipsis invites the listeners to infer the verbal expression that can result in a complete and relevant proposition. This clause is parallel to some extent with the first clause, but the first clause uses a figure of speech. More specifically, it mentions a specific insult to implicate by synecdoche the whole generic class of insulting behaviour. So should a semantic representation of the second clause use the specific insult or the generic class? The translators of many English translations have supplied a generic expression: ‘how much more *will they malign* those of his household’.

As an example of resolving lexical ambiguities and vagueness, consider the following line of text from God’s covenantal promise to David in 2 Samuel 7:16:

(13) וְנֶאֱמַן בֵּיתְךָ וּמַמְלַכְתְּךָ עַד־עוֹלָם לְפָנֶיךָ כִּסְאֲךָ יִהְיֶה נָכוֹן עַד־עוֹלָם

> And your house and your kingdom shall be made sure forever before me. Your throne shall be established forever.

[15] The descriptions in Gen 29:13 and 33:4 make it fairly evident that the heads were side to side when brothers kissed in greeting.

While there is a scholarly literature on this verse, our purpose here is simply to see how the sociocognitive principles under discussion could be used in the analysis. The terms בַּיִת 'house' and מַמְלָכָה 'kingdom' are polysemous, and one must look to the broader co-text to resolve the ambiguities. In the end the concepts of LINEAGE and DYNASTY seem to optimize the relevance of the statement within its co-text. The word כִּסֵּא 'throne' is ambiguous or possibly metaphorical, but DYNASTIC RULE seems to be the most relevant sense. In other words, the meaning is 'The rule of your dynasty shall be established forever.' The temporal term עַד־עוֹלָם 'for an era' is vague, but the sense FOREVER is the most common interpretation.

The agent of these events is not explicitly mentioned, but God seems to be the most relevant agent, and this fits the conventional Hebrew usage of a 'divine passive'. So on the bases of relevance and convention, the reader can infer an implicit reference to God as the one who will ensure continuation of the dynasty. The pronouns *your* and *me* require a referential assignment, and David and God seem to be the most relevant choices, respectively. All of these decisions are dependent on the choice of context, and all must be resolved in the course of interpreting the utterance and hypothesizing the propositions that it expresses.

For a more interesting example of identifying relevant referents, consider the referential resolutions needed in 2 Timothy 1:18:

> δῴη αὐτῷ ὁ κύριος εὑρεῖν ἔλεος παρὰ κυρίου ἐν ἐκείνῃ τῇ ἡμέρᾳ.
> may the Lord grant him to find mercy from the Lord on that Day!

The Contemporary English Version translates this in a way that makes the references easy to recover, basically by naming the referents:

> I pray that the Lord Jesus will ask God to show mercy to Onesiphorus on the day of judgment.

Matthew 21:7 provides yet another example of the task of recovering references:

> ἤγαγον τὴν ὄνον καὶ τὸν πῶλον καὶ ἐπέθηκαν ἐπ᾽ αὐτῶν τὰ ἱμάτια, καὶ ἐπεκάθισεν ἐπάνω αὐτῶν.
> They brought the donkey and the colt and put on them their cloaks, and he sat on them.

The complex conventions for interpreting English pronouns are only now being discovered through psycholinguistic testing, and much of this is cited and summarized by Barsalou,[16] but Greek and other languages have their own conventions, which differ from English. For example the NIV sought to improve the English syntax of the second clause by changing the word order a bit: 'They brought the donkey and the colt, placed their cloaks *on them*, and Jesus sat on them.' They did not, however, adjust the English participant-tracking conventions in accord with the new word order, and this left some readers with the unfortunate impression that Jesus sat on both the she-ass and her colt the same time![17] On the other hand, the activation of a

[16] Barsalou, *Cognitive Psychology*, 254–259.

[17] CEV avoids this ambiguity be dropping the pronoun: 'They brought the donkey and its colt and laid some clothes on their backs. Then Jesus got on.' REB does similarly: '… and Jesus mounted.' NASB 95

schema for riding a donkey, common for Matthew's audience, would involve a person sitting on just one donkey, never on two, although one could sit on multiple cloaks as a kind of saddle. Furthermore, the contextual implications of Jesus sitting on two donkeys at once would contradict other things said about Jesus, a kind of *reductio ad absurdum*.

The basic explicature embodies hypotheses made by the addressee. She tests their relevance by assessing the contextual implications which the explicature implicates. At some level her mind will try a variety of hypotheses for resolving pragmatic and semantic ambiguities, compare their relevance, and bring to mind the first one that satisfies the principle of relevance. It should be evident that the same sentence will have somewhat different meanings when used by different people in different conversations and contexts. As Wittgenstein said, 'Words have meaning only in the stream of life.'[18]

Sometimes an addressee will interpret a sentence, then realize, as the following co-text unfolds, that she has not selected the interpretation that is most relevant to the co-text. In that case may she may **repair** her mistake by reinterpreting that sentence in light of the subsequent co-text. In the following example, after reading the last clause, the reader may want to reinterpret a previous one:

> 'Time flies for me', said the entomologist to his assistant, who held the timer.

Hermeneutical point

- Even with testing and repair, a person's interpretation of an utterance can never be more than a hypothesis about the speaker's meaning, and the quality of this hypothesis will vary in accord with the addressee's ability to reconstruct the speaker's conceptual system and envisaged context. As a result, there will always be a degree of pragmatic ambivalence in her interpretation.

6.1.4. Inferring epistemic attitude

Recall that assumptions include both a proposition and an epistemic attitude towards that proposition.[19] So one of the interpretive tasks is to hypothesize the speaker's epistemic attitude towards the proposition, thereby hypothesizing the assumption that the speaker intended to communicate. Epistemic attitudes are not overtly marked for most sentences, in which case they generally have a default value. A person might also have a single epistemic attitude

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replaces the pronoun with its antecedent, which is normal English practice in such cases: '… and He sat on the coats.'

[18] Wittgenstein, *Last Writings on the Philosophy of Psychology*, trans. C. G. Luckhardt and Maximilian A. E. Aue (1; Oxford and Chicago: Blackwell, 1990), 118. '*Nur im Fluss des Lebens haben die Worte ihre Bedeutung*.'

[19] See Sperber and Wilson, *Relevance*, 181.

towards a whole concept or towards an episodic schema (i.e. a story), and in a text that same epistemic attitude might be expressed towards a whole discourse unit, such as a narrative.

In deductive processes, if a premise is weak, then any conclusion based on it will be weak as well.

> Rebecca: I will come to work tomorrow, if it doesn't snow.
> Alexander: In view of the weather forecast, you are saying it's unlikely that you will come to work tomorrow.

Alexander's response reveals a process something like the following:

(14) explicit premise: If it does not snow tomorrow, Rebecca will come to work.
contextual premise: The forecast predicts an 80% chance of snow tomorrow.
contextual implications: Rebecca will probably (80%) not come to work tomorrow.
Rebecca might (20%) come to work tomorrow.

A speaker can implicate an epistemic attitude that is different from what is encoded in his utterance. That becomes manifest if the encoded attitude conflicts with the rest of the speaker's co-text. Job, after listening to his self-righteous friends condemn him for his troubles, says, 'No doubt you are the people, and wisdom will die with you' (Job 12:2). The co-text, however, shows that he rejects their premises and conclusions. So he is mocking them with irony (sarcasm) by echoing back to them their own assessment of themselves.[20] The hearer can infer that the speaker's epistemic attitude is disbelief in that proposition.

In other cases, however, the insincerity is not overt, and the addressee is left to infer both the epistemic attitude intended by the speaker and the attitude actually held by the speaker. An example is Mark 12:14–15:

> And they came and said to him, "Teacher, we know that you are true and do not care about anyone's opinion. For you are not swayed by appearances, but truly teach the way of God. Is it lawful to pay taxes to Caesar, or not? Should we pay them, or should we not?" But, knowing their hypocrisy, he said to them, "Why put me to the test? Bring me a denarius and let me look at it."

The speakers were some Herodians, who supported the unpopular government, and some Pharisees, who were against it. If Jesus answered positively, the people would reject him, and if he answered negatively, the government could arrest him. The speakers said, οἴδαμεν 'We know that …', where *know* expresses a strong epistemic attitude, yet Jesus knew they were misrepresenting their true beliefs.

The outcome of this stage of the process is a hypothesis regarding the assumption which the speaker wished to communicate, namely a proposition and the speaker's evident epistemic attitude towards it. At a later stage the interpreter may evaluate the epistemic status of the proposition and assign her own epistemic attitude towards it.

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[20] Sperber and Wilson describe irony as a form of echoic speech. See Sperber and Wilson, *Relevance*, 237–243.

6.1.5. Inferring the illocutionary point

The next stage of explication is to hypothesize the kind of speech act which the speaker intended to perform with the assumption. Austin originally distinguished two groups—performative speech acts and constative speech acts—although the status of performative acts has been debated.[21] In their *Foundations of Illocutionary Logic*, Searle and Vanderveken use the term **illocutionary act**, which they characterize as follows:

> Whenever a speaker utters a sentence in an appropriate context with certain intentions, he performs one or more illocutionary acts. In general an illocutionary act consists of an **illocutionary force** *F* and a propositional content *P*.[22]

They identify seven components of illocutionary force, the main one being **illocutionary point**, which can be in varying types and strengths. They characterize it as follows:

> The point of statements and descriptions is to tell people how things are, the point of promises and vows is to commit the speaker to doing something, the point of orders and commands is to try to get people to do things, and so on. Each of these points or purposes we will call the *illocutionary point* of the corresponding act.[23]

The other components of illocutionary force are contextual conditions for the act, and it would seem more appropriate to classify these as elements of the context.

As an example of declarations, consider Luke 5:17-26 below:

> [17]On one of those days, as he was teaching, Pharisees and teachers of the law were sitting there, who had come from every village of Galilee and Judea and from Jerusalem. And the power of the Lord was with him to heal. [18]And behold, some men were bringing on a bed a man who was paralyzed, and they were seeking to bring him in and lay him before Jesus, [19]but finding no way to bring him in, because of the crowd, they went up on the roof and let him down with his bed through the tiles into the midst before Jesus. [20]And when he saw their faith, he said, "Man, your sins are forgiven you." [21]And the scribes and the Pharisees began to question, saying, "Who is this who speaks blasphemies? Who can forgive sins but God alone?" [22]When Jesus perceived their thoughts, he answered them, "Why do you question in your hearts? [23]Which is easier, to say, 'Your sins are forgiven you,' or to say, 'Rise and walk'? [24]But that you may know that the Son of Man has authority on earth to forgive sins"—he said to the man who was paralyzed—"I say to you, rise, pick up your bed and go home." [25]And immediately he rose up before them and picked up what he had been lying on and went home, glorifying God. [26]And amazement seized them all, and they glorified God and were filled with awe, saying, "We have seen extraordinary things today." [underlining added]

The response of the critics in verse 21 shows that they understood Jesus' utterance in verse 20 to be an exercise of authority (belonging to God), so they must have understood it as a

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[21] See Searle and Vanderveken, *Foundations of Illocutionary Logic* (Cambridge: University Press, 1985), 3; Searle, 'How Performatives Work', *Linguistics and Philosophy*, 12 (1989), 535–558.

[22] Searle and Vanderveken, *Foundations of Illocutionary Logic*, 1.

[23] Ibid., 13–14.

declaration. Jesus affirms this in verse 24, where he implies that he has the authority to forgive sins. In verse 20 the man's sins were cancelled by virtue of the fact that Jesus declared them to be cancelled.[24] In verse 24 he makes the directive illocutionary act explicit by saying σοὶ λέγω 'I say to you …' with the evident sense of 'I command you …'. This implies that he has the authority to issue a directive of this sort, one that contextually implicates a presupposition of healing. Evidently the contextually implicated presupposition is to be interpreted as a declaration, by virtue of which the man was healed. So there is an implicit declaration here as well.

Hermeneutic point

- Hermeneuts have discussed speech acts in general terms with regard to hermeneutical theory, but identification of specific speech acts should also be a goal of exegetical practice.

6.1.6. Implicit speech acts

In Speech Act Theory it is noted that there is sometimes a difference between the illocutionary function that a speaker seems to express in an utterance and the speech act which he performs with it. These are called **indirect speech acts**. The Searlean and Gricean approaches, however, fail to explain how hearers successfully infer the speaker's intended speech act. The principle of optimal relevance, however, can lead the addressee to pick out the most relevant contextual assumptions and conclusions, and these can lead to implicatures that have a different illocutionary function. I suggest, then, that the so-called 'indirect speech acts' can be reanalyzed as implicated speech acts. Let me suggest how this would work:

(15) explicit statement (assertion): You are standing on my foot.
relevant contextual assumption: (One should not stand on a person's foot.)
implicit deontic conclusion (directive): (You should not be standing on my foot.)
or (You should cease standing on my foot.)

The addressee can be expected to pick the contextual assumption with the most relevance, which in this case is the one that produces cognitive effects calling for immediate action, i.e. remove her foot and avoid offence and embarrassment. In this analysis the speaker performs two acts, an assertive one informing the speaker and a directive making a request of her, and in this way he shares with the addressee his goal that she should remove her foot from atop his. In this analysis there is no need to assess the explicit statement as an indirect request or as a 'felicity condition' for removing one's foot. It is enough that the search for its relevance led to

[24] Thiselton (Thiselton, *New Horizons*, 286.) includes this utterance among examples of 'exercitives' (i.e. Directives), which seems odd, but it might be that he meant to apply this category only to his next example, Mark 1:25.

an implicated conclusion with the appropriate illocutionary function. From that it can be inferred that the speaker was intending this very outcome.

This approach can be applied to some statements in Scripture. According to John, the first public miracle performed by Jesus was done quite reluctantly, at the request of his mother Mary. They were at a wedding party, but the wine had run out, to the shame of the hosts and the disappointment of the guests (John 2:3–5):

> When the wine ran out, the mother of Jesus said to him, "They have no wine." And Jesus said to her, "Woman, what does this have to do with me? My hour has not yet come." His mother said to the servants, "Do whatever he tells you."

Mary made an assertion οἶνον οὐκ ἔχουσιν They have no wine', but she implicated a directive, on the implicated premise that Jesus was able to solve this problem. Perhaps he had done this privately in the past. In spite of his reluctance to do a miracle in public before his ministry was fully underway, Jesus respected his mother's wishes and told the servants to pour 600 litres of water into some large jars, and the water turned into wine.

Hermeneutical points

- Indirect speech acts can be analyzed by realizing (1) that one must distinguish between the illocutionary function of an explicature and the illocutionary function of its implicatures and (2) that these illocutionary functions might differ.
- In general, the implicated conclusions are the main point of an utterance, whether they are assertive or directive or something else, and thus they constitute the most relevant speech act.

6.1.7. Speaker's meaning

The result of the enrichment process is an **explicature**.[25] It corresponds to what Zaefferer calls an 'illocution'. I have depicted the process of explication in the diagram below:

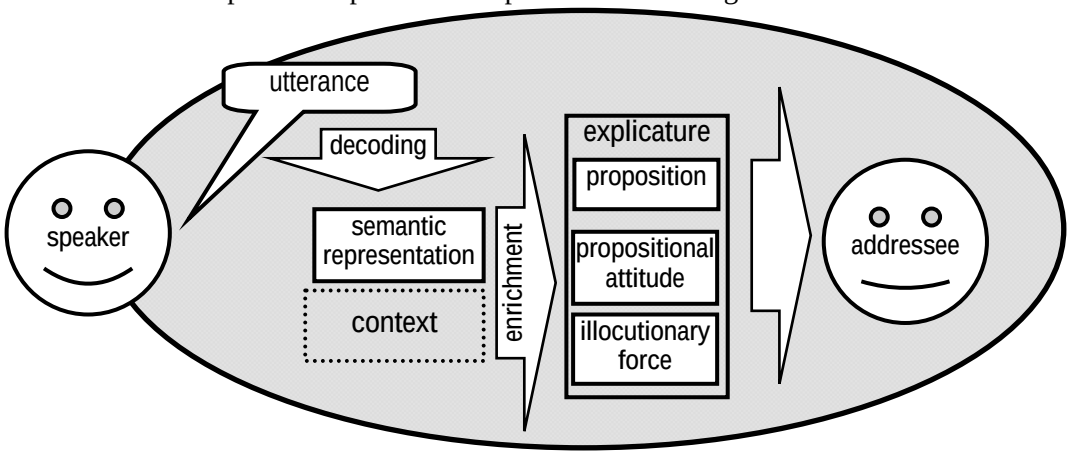

Figure 6-A Enrichment of an utterance to recover its explicit meaning

[25] See Sperber and Wilson, *Relevance*, 182–183.

The diagram in Figure 6-A above shows a representation of the decoding and enrichment processes, but it does not show how this fits within the larger process of communication. A fuller schema is presented below to represent how the explicatures function alongside the contextual assumptions and implications to produce cognitive effects:

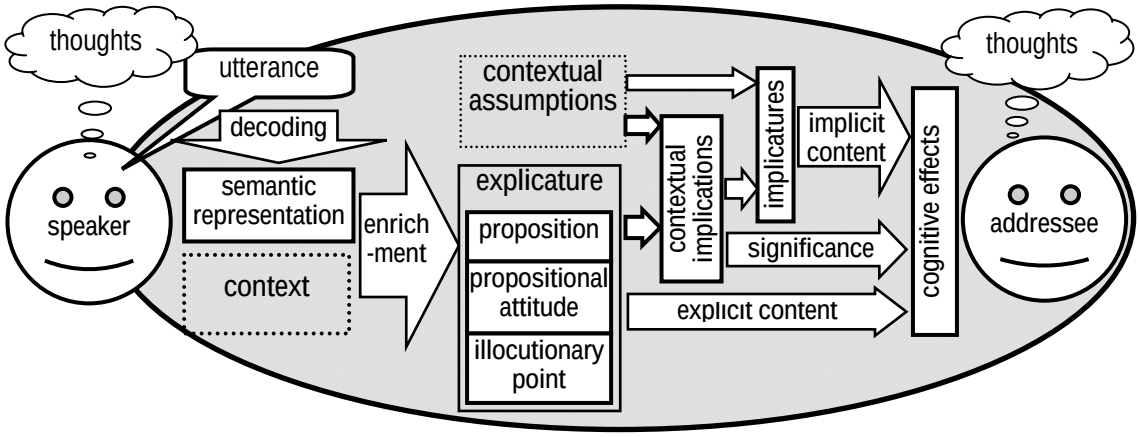

Figure 6-B Inference of speaker's explicature and implicatures resulting in cognitive effects

The diagram above looks complicated, but so is communication. Just imagine how remarkable it is that people can communicate via incomplete sentences, proverbs, poetry, and figures of speech. Even more amazing is the fact that this process works so well that the resulting cognitive effects are usually the very ones intended by the speaker. One of the benefits of a sociocognitive framework for interpretation is that it enables us to analyze this process and figure out what was most likely the speaker's informative intent.

It should be borne in mind that the cognitive effects are mental representations which form in the addressee's working memory as an interpretative response to the speaker's verbal stimulus. The explicatures and implicatures are her hypothesis of the speaker's meaning. They are not her own beliefs and intentions until she evaluates them, accepts them in some form (perhaps with reservations), and stores them in her long-term memory.

Hermeneutical point

- Authorial meaning consists of the explicatures and implicatures which the authorial audience would have inferred from the author's text on the basis of the authorial context.

6.2. Exegetical reconstruction of the comprehension process

An utterance, whether spoken or written, may be described as a **verbal stimulus** that can produce thoughts and feelings in the speaker's addressees when they respond to the stimulus (i.e. when they interpret the utterance). Wilson and Sperber summarize as follows the **comprehension procedure** that cognitive systems seem to use in the interpretive task:

Relevance-theoretic comprehension procedure

a. Follow a path of least effort in computing cognitive effects:
   Test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.
b. Stop when your expectations of relevance are satisfied.[26]

Wilson restates it as follows:

> The hearer takes the linguistically decoded meaning; following a path of least effort, he uses available contextual information to enrich it at the explicit level and complement it at the implicit level until the resulting interpretation meets his expectation of relevance; at which point, he stops.[27]

Normally this procedure proceeds rapidly, automatically, and recursively at a subconscious level until an interpretation is found that fulfils the presumption of optimal relevance, i.e. that produces positive cognitive effects for minimal effort.[28] For purposes of exegesis, however, it is often necessary to reconstruct this procedure in a controlled, well-informed way, using a reconstructed context of the authorial audience, both to optimize the reliability of the interpretation and to defend it rationally to others on the basis on cognitive principles.

One of the most significant aspects of Relevance Theory is identification of the main tasks involved in the comprehension process. Wilson and Sperber list them as follows:

a. Constructing an appropriate hypothesis about explicit content (in relevance-theoretic terms, explicatures) via decoding, disambiguation, reference resolution, and other pragmatic enrichment processes.
b. Constructing an appropriate hypothesis about the intended contextual assumptions (in relevance-theoretic terms, implicated premises).
c. Constructing an appropriate hypothesis about the intended contextual implications (in relevance-theoretic terms, implicated conclusions).[29]

Given a parallel distributed processing model of the brain, it has been assumed that a person's cognitive system processes these steps in parallel, making and testing hypotheses, adjusting failed hypotheses, and testing the new hypotheses, until it encounters a set of hypotheses that produces optimal relevance.

It should be evident, however, that Sperber and Wilson's descriptions above oversimplify the procedure, as they do not mention the selection of context, which is crucial to their model, and they mention several distinct processes in one step, such as decoding, pragmatic enrichment, and identification of illocutionary intent. For the exegete who wants to reconstruct an interpretive event in a reflective and deliberate way, it is needful to consider how all of the processes in the comprehension procedure work together to produce, test, and revise hypotheses about the speaker's meaning. I offer the following elaboration of the processes

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[26] Wilson and Sperber, 'Relevance Theory', 613.

[27] Wilson, 'New Directions', 389.

[28] This applies in particular to communication situations where the context lies within the mutual cognitive environment of the speaker and addressee.

[29] Wilson and Sperber, 'Relevance Theory', 261.

involved. In natural comprehension these processes are assumed to occur simultaneously (in parallel) in the unconscious and iteratively until a relevant configuration of hypotheses is reached, whereas in controlled processing, and on paper, they must be undertaken linearly and usually sequentially.

1. Decode the utterance into possible semantic representations.
2. Ground each semantic representation in a context accessible to the addressee, beginning with the most accessible concepts and contextual assumptions.
3. Test possible resolutions of ambiguities, implicit argument roles and references in a semantic representation, resulting in hypotheses of the proposition intended by the speaker (called an **explicature**).
4. Hypothesize the speaker's propositional attitude towards that proposition, resulting in a hypothesis of the assumption (belief) expressed by the speaker.
5. Hypothesize the illocutionary force, resulting in a hypothesis of the speaker's speech act.
6. Test contextualizations of the speech act, resulting in trial contextual assumptions and implications, which if manifestly intended are called **implicatures**.
7. Test each set of explicatures and implicatures for satisfaction of the presumption of optimal relevance.
8. If the presumption is not satisfied, then one or more of the trial steps (1–6) is repeated with a different value and the results are tested again (in step 7) for relevance. This testing of different values is repeated until either the presumption of optimal relevance is satisfied or the search for relevance is abandoned with no results.
9. If the presumption is satisfied, then the comprehension process terminates and yields the explicature or implicatures or both as the speaker's meaning.

My elaboration of the comprehension process is represented in Figure 6-C below.

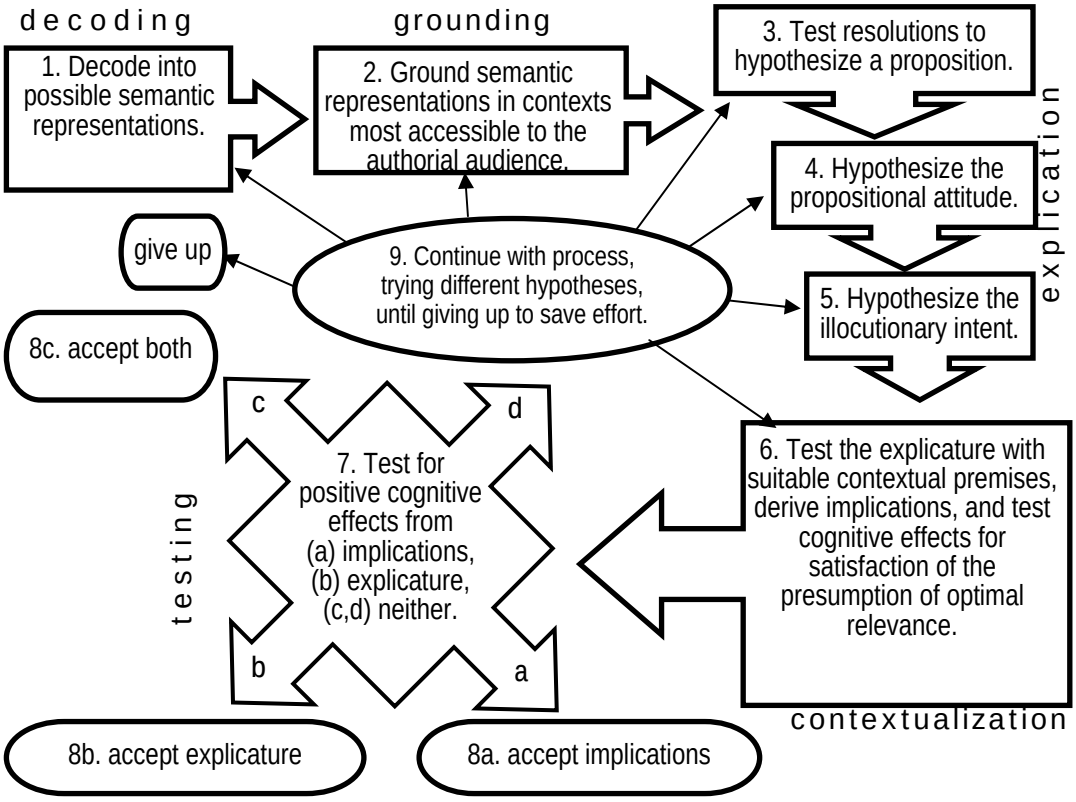

Figure 6-C Flowchart of the comprehension process

These tasks have been described in order as if they were a recursive cycle, but since the brain is known to work in massively parallel processing, it is assumed that these tasks are performed in parallel as well, and hence very quickly.[30] In other words, one's cognitive system makes nearly simultaneous adjustments to the hypotheses in Tasks 1 through 6 while monitoring the results in Task 7. When a particular combination of hypotheses produces results that satisfy the presumption of optimal relevance, the process terminates with that result.

Reflection on this process brings substance to the claim that 'sentence meaning vastly underdetermines speaker's meaning'.[31] The sentence is merely a **verbal stimulus** that initiates a comprehension process in those who hear it. What the hearer actually understands from the sentence is the outcome of the comprehension process.

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[30] 'Explicatures and implicatures (i.e. implicit premises and conclusions) are arrived at by a process of mutual parallel adjustment, with hypotheses about both being considered in order of accessibility' Wilson and Sperber, 'Relevance Theory', 624.

[31] Sperber and Wilson, 'Pragmatics, Modularity and Mind-reading', *Mind and Language,* 17 (2002), 3–23, 3. See especially Carston, *Thoughts and Utterances*. As articulated on the back cover, the 'central claim of this book is that the linguistically encoded meaning of an utterance underdetermines the propositions explicitly communicated by the utterance'.

Hermeneutical points

- Texts provide no more than clues to the author's informative intent. It is up to the interpreter to infer the intended concepts, semantic frames, referents, attitudes, illocutionary points, contextual premises, and contextual implications.
- The author did not just produce a text whose interpretation may be influenced by the cognitive environment; rather, he chose particular contextual assumptions and produced a text that fit that context, so that the text and contextual assumptions together would implicate the meaning which he wanted to convey to his addressees.
- The comprehension procedure is complicated, but it provides an algorithm for hypothesizing, testing, and comparing different reconstructions of the authorial meaning and context, with a view to identifying the one optimally relevance for the authorial audience.
- The explicatures and implicatures that result from reconstruction of the comprehension process for the authorial audience constitute an inference to the best explanation of the author's meaning and intended context.

6.3. Example: Arrangement of the marriage of Isaac and Rebekah

Although there are good reasons to conclude that a person's cognitive system processes data in parallel, the presentation of an example on paper requires a linear progression (even if it was edited recursively). Our first example is from the narrative in Genesis 24, which describes an event in which Abraham sends his steward to arrange a bride for his son Isaac from among his relatives in Nahor, a distant town in upper Mesopotamia. Verse 4 reads as follows:

> כִּי אֶל־אַרְצִי וְאֶל־מוֹלַדְתִּי תֵּלֵךְ וְלָקַחְתָּ אִשָּׁה לִבְנִי לְיִצְחָק
>
> Go instead to my homeland, to my relatives, and find a wife there for my son Isaac.

Our goal is to reconstruct some of the mental processing by which ancient readers might have comprehended this passage within their cognitive environment, including the co-text. This requires research into the culture and historical situation surrounding the reported events, the *sitz im leben* of its composition and transmission, and the role of the story in both the broader discourse and canonical history. But assuming that for present purposes, we can look at how a reconstruction of the comprehension process might proceed.

1. Decoding: The hearer decodes the utterance to arrive at possible semantic representations.

When Abraham commissions his steward for this task, he charges him as follows (v. 4):

(1) כִּי אֶל־אַרְצִי וְאֶל־מוֹלַדְתִּי תֵּלֵךְ וְלָקַחְתָּ אִשָּׁה לִבְנִי לְיִצְחָק

כִּי	אֶל	אַרְצִי	וְ	אֶל	מוֹלַדְתִּי	תֵּלֵךְ	וְ	לָקַחְתָּ	אִשָּׁה	לְ	בְּנִי
rather, indeed, that, etc.	to, *	my- GROUND, LAND, COUNTRY, EARTH	and, *	to, *	my - DESCENDANTS, RELATIVES, BIRTH(PLACE)	you-GO, PROCEED, CONTINUE, BECOME, DIMINISH	and, *	you-TAKE, BRING, FETCH, RECEIVE, ACCEPT, TAKE AWAY	WOMAN, WIFE, BRIDE	to, until, for, for sake of, as, belonging to, towards	my- SON, BOY, MEMBER

(For ease of presentation the possessive suffixes and verbal infixes have not been parsed, and the Tiberian vowelling has not been questioned.) Each lexeme in this passage is associated with several different concepts or functions. The grammatical morphemes have too many functions to list here; *HALOT* lists 19 functions for כִּי, 9 for אֶל, and 30 for וְ.

Semantic and syntactic collocational restrictions will inhibit some of the concepts. In our text, for example, the verb הָלַךְ is followed by the preposition אֶל. The most common function of אֶל is to mark a noun phrase that expresses a Goal. The main concept of הָלַךְ that has a Goal in its semantic frame is the TRAVEL concept. So unless something else in the co-text or context forces a different interpretation, this is the concept and frame that will be selected. Note as well that the Goal participant must be a location or an object at a location. This inhibits some of the concepts associated with אֶרֶץ, such as EARTH and GROUND.

Another aspect of the decoding is the identification of the semantic frames and schemata associated with these concepts. From a cognitive perspective, they are part of the content of the concept. For example, one of the concepts associated with the verb הָלַךְ is that of TRAVEL. The concept of TRAVEL is common to human experience and its semantic frame can involve the following semantic arguments:[32]

> Activity (a journey, typically planned in advance)
> Traveller (typically a sentient being)
> Source (a location or an object at some location)
> Goal (a location or an object at some location)
> Path (a route, i.e. a series of contiguous locations)
> Direction (a direction, but this may vary according to position in the path)
> Duration (a measure of passage of time)
> Distance (a measure of the route taken)
> Mode of transportation
> Co-participants (one or more sentient beings who participated in the activity).
> Baggage (objects)
> Area (a broad location within which all of the travel took place)
> Time (a fixed point or period of time during which the activity began or took place)
> Purpose (one or more states of affairs that the activity is intended to facilitate)

[32] The list of participants is based on the FrameNet Travel Frame.

Thus one of the semantic representations decoded from the first clause in our passage could be represented in English in the following way:

(2) You engage in TRAVEL at some Time from some Source along some Path for some Duration and Distance by some Mode of Transportation, probably with some Baggage and possibly with some Companions, to the Goal of my HOMELAND/COUNTRY and to the Goal of my RELATIVES/BIRTHPLACE, probably for some Purpose.

(The reader will likely infer that the next clause expresses the purpose of the journey.) The semantic representation includes many referential expressions but no references. The identification of referents is a pragmatic task and requires that the semantic representation first be grounded in an appropriate cognitive environment.

2. Grounding: The hearer tries grounding each semantic representation in a highly accessible context.

In narrating the story recorded in Genesis 24, the narrator has assumed that his audience is familiar with Ancient Near Eastern (ANE) schemata regarding travel, hospitality, and arrangements for marriage. A schema for an ANE marriage arrangement typically involves a prospective bride and groom (preferably cousins), their families (especially their parents), negotiations, a bride-price, possibly an intermediary to arrange the marriage and negotiate the bride-price, and a polling for agreement by all parties, although in some cases a woman might be forced to marry against her will. The custom of patrilocality meant the bride would relocate to where her husband and his kinfolk lived.

3. Enrichment: Hypothesization of disambiguations and references

In processing the semantic representation in (1) above, the addressee must hypothesize which of two or more competing concepts is the most relevant one. For example, the lexeme מוֹלֶדֶת is linked to both RELATIVES and BIRTHPLACE, and the addressee might make a hypothesis that RELATIVES will prove to be the most relevant choice. As for the referent of *You*, Abraham said this to his steward, and no other participants have been introduced, so the most likely Traveller referent is Abraham's steward. The most likely Source location is the **deictic centre**, which in this case is the location of the speaker, Abraham. In other words, 'Go from here to …'

Continuing with our story, upon arriving at a well in Nahor, the steward asks God's guidance, then looks up to see a young woman coming to the well. The text continues (24:16): 'The young woman was very attractive in appearance, a maiden whom no man had known. She went down to the spring and filled her jar and came up.' The ancient readers would have had to resolve the vague expression כַּד 'jar'. Since the woman was fetching water from a public well, they would likely have selected the meaning of 'water jar' as the most relevant. They would also need to resolve the ambiguous expression 'whom no man had known'. Most of the possible meanings (i.e. that no one had known about her) conflict with other assumptions (she's at a public well), but given the cultural value for virgin brides, the ancient readers would no

doubt have selected an ascription of virginity as the most relevant interpretation of this relative clause.

The ancient readers also had to identify the referents by selecting the most relevant ones. In Genesis 24:23, the steward says to Rebekah, 'Is there room in your father's house for us to spend the night?' The readers would have immediately identified the referent of *your* as Rebekah, and they would have known that her father was Bethuel, Abraham's nephew, because the author revealed this in verse 15 (although the steward was unaware of it). But who is the referent of *us* in לָ֥נוּ לָלִֽין 'for us to spend the night'? The only people mentioned in the speech situation are Rebecca and the steward, so his request sounds a request to spend the night with Rebecca. This interpretation, however, is inhibited by its conflict with both ancient custom and the goal of the steward's mission. Moreover, the author could expect his authorial audience to assume that the steward brought along workers to tend to the camels, protect the goods, etc., in accord with the ANE journey schema. In that case the readers would have assumed that the most relevant referents of *us* are the steward and unmentioned companions rather than the steward and the girl. The existence of the companions is confirmed in the subsequent co-text, although not until verse 32. If a reader made the wrong referent selection in verse 23, then after reading verse 32 it might be possible to repair that hypothesis.

4. Enrichment: Hypothesization of the speaker's propositional attitude

Our readers would have observed that the author reports this story of Rebekah as a historical event and gives no indications of uncertainty regarding its factuality.

5. Enrichment: Hypothesization of the speaker's illocutionary point.

In our story, most of the sentences express assertions, but recall that in Genesis 24:23 the steward says to Rebekah, 'Is there room in your father's house for us to spend the night?' This has the form of a question seeking information, but it implicates a request for lodging. As a pure question it would lack relevance, so the more relevant hypothesis is that it is a request.

6. Contextualization: Hypothesization of contextual assumptions and implications.

Elements in the story would have activated a number of ANE schemata for its ancient readers, such as schemata regarding journeys, hospitality, and marriage arrangements, and the ancient readers would have contextualized the story within such schemata. The ANE journey schema, for example, would have included the importance of armed travelling companions (due to risks posed by highwaymen), the value of camels as modes of transportation, the custom (and need) for travellers to find food, water, and lodging in villages and homes along the way, the virtue of hospitality, the custom of giving gifts to hosts, etc.

In looking for a sign of the chosen bride, Abraham's steward looks for one who would give him water and offer to draw water for his camels. The culturally dependent contextual implication is that she is a virtuous woman. When the steward asks if there is room in her father's house to spend the night (v. 23), she draws the contextual implication that he is

requesting her family's hospitality. Her explicit response (v. 25) is an answer to his explicit question, but it implicates an offer to accommodate his men and feed his camels.

There is another communication, that between the narrator and his audience. In that case the narrator is inviting the Israelite readers to infer that God favoured their forefathers Abraham and Isaac and selected a virtuous woman, Rebekah bat Bethuel ben Milcah, to be their foremother. The steward draws part of this conclusion himself in verse 27, but most of this conclusion is left to be inferred by the readers.

7. The hearer tests whether (a) the explicature or (b) the contextual implications or (c) both satisfy her presumption of optimal relevance by providing positive cognitive effects.

In Task 1, the addressee decoded מוֹלֶדֶת to mean either RELATIVES or BIRTHPLACE. The following clause says 'and take a wife for my son Isaac'. Less processing is required in Task 3, and more implications provided, if one chooses a wife from relatives rather than from a place. Interpreting place would require one to assume metonymy, i.e. citing a location to refer to the people at that location, and it requires a weak implicature to get to relatives, if one gets there at all. So testing both hypotheses in parallel should lead to the choice of relatives. (This is true, even if the lexeme מוֹלֶדֶת had originally had the sole meaning of BIRTHPLACE and the concept of RELATIVES developed from that via conventionalized metonymical extension.)[33]

Similarly when the ancient readers interpreted verse 23, where the steward says to Rebekah, 'Is there room in your father's house for us to spend the night?', both interpretations of *us* could have been tested in parallel and one of them found to produce contextual implications that were more relevant. After all, it would defeat the steward's mission if he were to sleep with the prospective bride, especially when God himself had selected her and made her known to him.

8. If the presumption of optimal relevance is not satisfied, then the process continues or terminates with no results.

If the reader can access the context and does so, then the process should quickly lead to an interpretation that produces optimal relevance. If the reader lacks access to the intended context and tries to use different ones, she might fail to find a relevant interpretation and she might decide that the comprehension process is requiring too much processing effort. She might give up and try to interpret the next utterance or she might ask the speaker what he meant.

If the speaker implicates weak implicatures which the audience fail to interpret relevantly, then they might give up as well. Such an event is narrated in John 6:

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[33] It is widely agreed that new concepts are added to lexemes (or their range of meanings is 'extended') through the conventionalization of metonyms and metaphors, narrowed specifications, and inductive generalizations. For discussion see Geeraerts, *Diachronic Prototype Semantics: A Contribution to Historical Lexicology* (Oxford: Clarendon Press, 1997), chap. 2.

> [53]So Jesus said to them, "Truly, truly, I say to you, unless you eat the flesh of the Son of Man and drink his blood, you have no life in you." ... [60]When many of his disciples heard it, they said, "This is a hard saying; who can listen to it?" [61]But Jesus, knowing in himself that his disciples were grumbling about this, said to them, "Do you take offence at this? … [63] It is the Spirit who gives life; the flesh is of no avail. The words that I have spoken to you are spirit and life." … [66]After this many of his disciples turned back and no longer walked with him.

Jesus indicated that his words should be interpreted 'spiritually' rather than at surface value, yet many of his audience gave up trying to understand what he meant and even quit listening to him.

9. If the presumption of optimal relevance is satisfied, then the hearer accepts whatever satisfied it as the interpretation of the utterance and stops processing.

This could be (a) the explicature, (b) one or more implications, or (c) both.[34] Contextual implications which were manifestly intended by the speaker are considered to be implicated conclusions, and the contextual assumptions which were premises for those implications are considered implicated premises. The hearer takes the explicature and implicatures to be the speaker's meaning. This procedure should produce the best possible approximation of the speaker's meaning, but misinterpretation is still possible. Wilson and Sperber write:

> Thus, when a hearer following the path of least effort arrives at an interpretation that satisfies his expectations of relevance, in the absence of contrary evidence, this is the most plausible hypothesis about the speaker's meaning. Since comprehension is a non-demonstrative inference process, this hypothesis may well be false; but it is the best a rational hearer can do.[35]

As for exegetes, to recover the intended meaning of a text, they must evaluate optimal relevance as it would have been perceived by the originally intended readers on the basis of their original cognitive environment.

6.4. The hermeneutical circle

Schleiermacher recognized that the exegete needed to interpret a text in relation to its cultural and historical contexts, but he faced the problem that little was known in his time about the cultural and situational contexts of the biblical authors or the intertextual environment in which they wrote. They lacked access to the ancient cultures and situations, and at that time they could not visit the biblical lands. No one had yet discovered and deciphered the Ancient Near Eastern texts that we have now, and except for the Apocrypha, most of the intertestamental texts were unavailable to him. So there were few extrabiblical texts that could shed light on the

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[34] In some cases the contextual implications satisfy the presumption of optimal relevance but the explicature does not. Examples are figures of speech and other **loose talk**. In such cases the implicatures constitute the speaker's meaning but not the explicature, which merely stimulated it.

[35] Wilson and Sperber, 'Relevance Theory'.

cognitive environments of the biblical authors. Schleiermacher was left dependent on the biblical texts to provide clues to the contexts of the biblical authors. This led him 'to consider the work as it is formed by its parts, and to perceive every part in light of the work's overall subject as its motivation', a process he famously called the hermeneutical circle, as noted previously.[36] Since the time of Schleiermacher, the hermeneutical circle has been applied to art, literature, music, architecture, and machines. N. T. Wright notes that this procedure is a direct consequence of critical realism, since 'the only access we have to this reality lies along the spiralling path of *appropriate dialogue or conversation between the knower and the thing known*' (emphasis original).[37] Thus the circle is really a form of spiral learning rather than a circularity.

Using modern cognitive terminology, we can describe the **hermeneutical spiral** by saying that the reader decodes a passage or text to arrive at a tentative interpretation, uses that interpretation to identify the historical context in which to contextualize the text, reinterprets the passage in the light of this context, then reinterprets the context (and language) in light of the interpreted passages. After knowledge of the historical cognitive environment has improved due to the contextualized interpretation of many such passages and texts, the process can be repeated, using the revised interpretation of the text, intertext, and context, and leading to an improved understanding of the individual passages. In this way his comprehension of the authors and their environments spirals upwards.[38]

6.5. The role of cognitive accessibility

Recall that the relevance-theoretic comprehension procedure mentioned in the previous chapter said that the comprehension process follows 'a path of least effort' by testing hypotheses 'in order of accessibility' until the expectation of relevance is satisfied, at which point the process stops. This means that the 'deductive device' in the addressee's unconscious tests potential concepts and contextual premises from the addressee's cognitive environment for cognitive effects, beginning with the ones that are most accessible at that particular moment, and stops when the presumption of relevance is satisfied. Corresponding to that, a speaker's unconscious productive faculties construct a model of the relevant part of his addressee's cognitive environment, including her concepts, assumptions, and their relative accessibility, and compose an utterance that will interact with the most accessible ones to produce his intended cognitive effects. This highly complex activity happens at lightning speed, and the speaker is hardly

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[36] Schleiermacher, 'The Hermeneutics: Outline of the 1819 Lectures', in Gayle L. Ormiston and Alan D. Schrift (eds.), *The Hermeneutic Tradition: From Ast to Ricoeur* (Albany, NY: State University of New York Press, 1990), 85–100, 97.

[37] Wright, *The New Testament and the People of God*, 35.

[38] See Osborne, *Spiral*. for a version of the hermeneutical spiral.

aware of it. His awareness is limited for the most part to his addressee and to his informative, social, and illocutionary goals for her, and many of these goals are below his awareness as well. People do indeed say more than they know, and much of an author's informative intent and artistic style originates in the unconscious, before the author is aware of it. Yet his mind does construct a contextual model for his addressee, and this includes both presumed elements of her cognitive environment relevant to the topic, their interconnectedness, their activity levels, and their relative accessibility.

As a conversation progresses, the speaker automatically updates his model of the addressee's context to include the information he has just communicated to her and information he has activated in her mind to some degree, and he assigns an accessibility level to each element. This includes information that was not part of the speaker's informative intent but which he automatically assumes was activated in her mind by the information that was conveyed. As a result, when it is mentioned for the first time, it has the definite article, showing it has already been activated and is highly accessible. Almost every element of the speaker's utterance reflects this ongoing process in his unconscious, one that no computer has yet been able to mimic.

When two people have the same basic conceptual system, if the relative accessibility of those concepts is different, then they will not process the same utterance in the same context. The more distant two people are in terms of culture, worldview, lifestyle, situation, etc., the less likely they are to share the same patterns of accessibility. A good speaker or author can organize his utterance so that it primes many of the pragmatic presuppositions needed for the next part of his discourse, thereby making them accessible when needed. Listeners and readers perceive this as a 'smooth flow' of discourse. But this is not possible when the listener is outside the speech event and just listening in, which is the position the exegete is in when she tries to comprehend an author whose text was addressed to an audience whose cognitive environment was quite different from her own.

Consider, for example, Matthew 1:19, where Joseph has discovered that his fiancée Mary is pregnant:

> Ἰωσὴφ δὲ ὁ ἀνὴρ αὐτῆς, δίκαιος ὢν καὶ μὴ θέλων αὐτὴν δειγματίσαι,
> ἐβουλήθη λάθρᾳ ἀπολῦσαι αὐτήν.
> And Joseph her husband, being a righteous man and not wanting to disgrace her, planned to send her away secretly. (NASB)

The Torah had a law for this situation, one that was practiced by the Jews, namely that the unfaithful fiancée must be publicly accused, tried by the elders, and if guilty, stoned to death at the city gate (Deut 22:20–24). Many Western Christians are aware of this law, but Torah-observance is so far from their mind, so low in accessibility, that it does not come to mind when they read this passage, even though the text calls for it. They can find relevance by using more accessible assumptions, such as the desirability of avoiding public scandals. The Torah

obligation only comes to their mind if it has been previously linked in their thoughts to this particular story, through a footnote or sermon. On the other hand, readers in traditional non-Western Jewish and Muslim societies readily think of the obligation to stone an adulteress, even if they are unfamiliar with Deuteronomy 22:20–24, because this assumption is part of their culture and is highly accessible to them.

This passage illustrates the relative accessibility of lexical concepts as well. In a biblical Jewish society, a man who is צַדִּיק δίκαιος 'righteous' is one who is faithful to the covenant with God and hence compliant with the Torah's requirements.[39] Many Western Christians, however, fail to notice a possible incongruity in this passage between Torah-observance and the decision of Joseph to divorce Mary secretly (λάθρᾳ ἀπολῦσαι αὐτήν), without public accusation. It need not concern us here how this incongruity may be resolved, or what literary and theological significance it might have, but only to note that most Christian readers do not even notice it, because the contextual assumptions pertaining to it are barely accessible to them, if available at all. These readers satisfy the presumption of relevance with a decoding of the English word *righteous* that is more accessible to them than the concepts TORAH-OBSERVANT and COVENANT-FAITHFUL, namely VIRTUOUS, as was done in the NLT: 'Joseph, her fiancé, was a good man'.

In summary, then, to understand how Matthew expected his first-century Jewish audience to understand this passage, *the contextual model reconstructed by exegetes for the authorial audience needs to include the relative accessibility of their assumptions and concepts*.

Hermeneutical points

- When exegetes reconstruct the context of an authorial audience, not only should they include the relevant concepts and assumptions that were available to that audience, but also the relative accessibility of this information to that audience at that time. When a text presents apparent ambiguities of equal relevance to the authorial audience, such as alternative senses of a lexeme, different candidate referents, or different contextual premises, then the alternative that was most accessible to the addressees in their context is the one which the author presumably intended (recognizing that intentionality and contextualization are largely subconscious).
- In the course of using a contextual model of the authorial audience to identify the most relevant concepts, referents, and contextual premises, the exegete should give priority to those which would have been most accessible to the authorial audience and work down from there until he finds ones that satisfy the presumption of optimal relevance by producing positive cognitive effects coherent with what is known of the author's conceptual system and discourse. *The explicatures and implicatures resulting from this*

[39] See Wright, 'Righteousness', in David F. Wright et al. (eds.), *New Dictionary of Theology* (Downers Grove, IL: IVP, 1988), 590–592.

selection constitute the author's evident informative intent. We have therefore arrived at a definition of authorial meaning that is warranted by the sociocognitive sciences.

- The accuracy of the exegete's reconstruction of authorial meaning depends on the accuracy of the contextual model she has reconstructed for the authorial audience and the accuracy of her model of the relevant aspects of the author's cognitive environment, particularly his conceptual system.

6.6. Relative accessibility

The accessibility of a concept or contextual assumption at some point in a discourse is determined by several different factors. Fortunately for the exegete, there is often evidence for these factors and hence grounds for construction of a contextual model that takes account of them. These factors fall into two groups. One set of factors, as E. T. Higgins puts it, stems from 'the fit between the stored knowledge and the presented stimulus'.[40] This has been the topic of the preceding sections, where the principle of optimal relevance has determined the fit. The second set of factors affects the 'the accessibility of the stored knowledge prior to stimulus presentation'.[41] We can refer to the former as an assumption's **activated accessibility**, and to the latter as its **inherent accessibility**. The remaining sections concern this latter.

One factor affecting inherent accessibility is the cognitive source of the information at the time when it is needed. Sources were discussed in §5.1 as different kinds of memory and knowledge. A second factor is the relative accessibility of information in long-term memory. Accessibility is an area of research in cognitive science, but much more research is needed, particularly on the relative accessibility of information utilized by readers while comprehending texts. So while the factors are presented below in order of decreasing accessibility, the order remains somewhat tentative.

1. Assumptions and concepts in working memory

Sperber and Wilson write:

> We will assume that all the newly derived synthetic implications, all the premises which have undergone a synthetic rule, and all the premises which have been strengthened, remain in the memory of the deductive device;[42]

In other words, assumptions which have been involved in the comprehension process remain in working memory for a short time and are the most accessible context for further processing. Consider, for example, Matthew 1:18:

> Now the birth of Jesus Christ took place in this way. When his mother Mary had been betrothed to Joseph, before they came together she was found to be with child from the Holy Spirit.

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[40] Higgins, 'Knowledge Activation', 135.

[41] Ibid., 135.

[42] Sperber and Wilson, *Relevance*, 139.

This statement that Mary's pregnancy became evident is followed by the one cited previously, that Joseph decided to divorce her. Why did he do that? In some cultures of central Africa, a woman is not considerable marriageable until she has demonstrated an ability to conceive. Matthew's audience would have accessed Jewish cultural assumptions in long-term memory that sexual infidelity while betrothed to someone else is adultery and renders a woman unfit for marriage, as well as a universal assumption that pregnancy is evidence of having been sexual active with someone. They would thus have reconstructed Joseph's inference that Mary must have committed adultery. This inference will remain in their working memory long enough to be used as a premise in the next verse, where it serves as the reason for Joseph's decision to divorce Mary (because she had committed adultery) and to do so secretly (because it was a capital crime, and he did not want her to be hurt). But working memory can hold only four 'chunks' of information at a time, which is enough for only one contextual implication and a bridge to the next one.[43] So unless implications get stored in long-term memory, they are not available for very long, and exegetes should not assume the author expected them to be available to his audience later on unless they were salient enough to be stored in memory. On the other hand, with repeated re-reading of a text, the readers may be expected to internalize many of the explicatures and implicatures and recall them later.

In addition to implications, working memory holds the explicit and implicit premises that were used to produce these implications. These are highly accessible as contextual premises for the next sentence, as are their concepts, including singular concepts used for reference. If a polysemous word is being decoded in the next sentence and one of its concepts is already present in working memory, then that concept will be highly accessible. The same applies to pronouns. After processing verse 18, the reader's working memory has singular concepts for Joseph and Mary, as well as assumptions regarding her evident pregnancy and the adultery this implies to Joseph. So when the next verse uses the pronoun *her* three times (αὐτῆς, αὐτήν), the female singular concept that is most accessible to the reader is MARY in working memory.

For the reader, of course, the pronoun *her* evokes the MARY concept intuitively in this case, but one cannot demonstrate the plausibility of an interpretation on the basis of intuition alone. Pronouns work differently in different languages, and exegetes often propose mutually incompatible interpretations that seem intuitive to each of them. Appeals to intuition are insufficient to resolve such disagreements, but the application of cognitive conceptual tools can demonstrate in some cases that one interpretation is more cognitively plausible than another.

As new information enters working memory, the information currently there is moved into short-term memory.

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[43] See Cowan, *Working Memory Capacity* (Hove, Sussex, and New York: Psychology Press, 2005).

2. Assumptions and concepts in short-term memory

Assumptions in short-term memory constitute a second tier of highly accessible concepts and assumptions in the context. These include explicatures, implicated premises, and contextual implications that were processed in the preceding co-text within the last 20–30 seconds. Information processed prior to that is no longer in short-term memory and has either been stored in long-term memory or has expired. In the course of processing an utterance, the assumptions in working memory will be considered first. If none of them leads to contextual implications that satisfy the presumption of relevance, then the context will extend to assumptions in short-term memory, and they will be tested for relevance.[44]

Consider a sentence from Paul's letter to the Philippians (1:27–28):

> [27]Only let your manner of life be worthy of the gospel of Christ, so that whether I come and see you or am absent, I may hear of you that you are standing firm in one spirit, with one mind striving side by side for the faith of the gospel, [28]and not frightened in anything by your opponents. This is a clear sign to them of their destruction, but of your salvation, and that from God.

Paul describes a 'manner of life' which should characterize disciples of Christ in the face of persecution, using the verb πολιτεύεσθε 'behave'. In verse 28 he uses the relative pronoun ἥτις 'which' (translated *This* in ESV) to refer to this state of affairs. Commentators have argued about which part of the sentence is the antecedent of *which*,[45] but the previous clauses would normally have vanished from perceptual memory. What remains is a cognitive representation in short-term memory of the manner of life that Paul described in verse 27b, which (ἥτις) Paul evokes again as evidence of their salvation. In terms of discourse analysis, this idealized manner of life is the topic of this span of discourse. From a cognitive perspective, Paul is building a concept in his audience of MANNER OF LIFE WORTHY OF THE GOSPEL OF CHRIST. He returns to this topic frequently in the letter, adding more and more assumptions to this concept, thereby ensuring the concept is stored in long-term memory, along with at least some of its features.

3. Assumptions and concepts in perceptual memory (sensory memory)

Sperber and Wilson cite perceptual memory as part of the context:

> A third way of extending the context is to add to it information about the immediately observable environment … briefly retained in short-term perceptual memory stores.[46]

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[44] Sperber and Wilson, *Relevance*, 139–140.

[45] Lenski, *The Interpretation of St. Paul's Epistles to the Ephesians and to the Philippians* (Mineapolis: Augsburg, 1937). Most commentators take one of the two participial clauses to be the antecedent. Hawthorne takes τῇ πίστει τοῦ εὐαγγελίου 'the faith of the Gospel' to be the antecedent, since it and ἥτις are both feminine (Hawthorne, *Philippians*, ed. Ralph P. Martin (Word Biblical Commentary, 43; Waco, TX: Word, 1983).).

[46] Sperber and Wilson, *Relevance*, 141.

This includes percepts in the current speech situation, such as participants, objects, circumstances, events, and the physical environment, sometimes without conscious attention to them until they are mentioned.

In cognitive science, input from the senses are called **percepts** and are said to reside briefly in sensory storage, which is not so much a special place as it is a temporary state of sensorimotor knowledge. If a person hears a car coming, sees his keys lying on the floor, feels pain, or smells smoke, he might not notice it, in which case the percept expires after a few seconds. But if the person attends to the percept, then it enters working memory, where it can be processed. The speaker can draw attention to a percept and thereby place it in working memory. Suppose, for example, that John hears someone drive past in a very noisy car and so he says to Mary, 'Some people are so inconsiderate.' Mary might not have noticed the car, but in seeking a context for John's remark, she recalls the noisy car from perceptual memory, where the percept persists for some seconds before decaying. She can then make the inference that John is criticizing the driver of that car.

In the story of the leper in Luke 5:12–14, the leper did not tell Jesus that he was leprous and that he needed cleansing from leprosy. He expected Jesus to perceive that assumption, which becomes a premise for his implicatures. The narrator, however, must inform his audience verbally.

In Acts 2:16 Peter addresses a crowd which has gathered after hearing the early Christians prophesying and praising God in different languages on Pentecost. He says, 'this is what was uttered through the prophet Joel' and then quotes the prophet. Peter uses the word τοῦτο 'this' to refer to an unmentioned activity that was accessible to his audience from their sensory memory.

Luke 23:38 relates that a sign was posted on the cross of Jesus that said ὁ βασιλεὺς τῶν Ἰουδαίων οὗτος 'This is the king of the Jews.' The word οὗτος 'this' invites the readers to identify a percept with one of their concepts. Looking at the cross they perceive the figure of Jesus and infer that *this* is intended to refer to Jesus. In other words, for a passerby reading the sign, the word οὗτος 'this' does not correspond to any antecedent text or concept in working memory, but to a percept in perceptual memory.

It might be mentioned that percepts differ in accessibility in accord with what is called **salience**. Something is salient if it stands out from the rest of the field.[47] A loud car driving past is more salient than the rest of the traffic sounds. An image in one's perceptual field of a man dying on a cross is highly salient. If a sign above him says 'King of the Jews', that is highly salient as well. Passersby in the crowd could refer to him merely as οὗτος 'this' (Matt 27:47), and could have asked 'Who is he?' and 'What did he do?' with no need to clarify the referent of

[47] See Higgins, 'Knowledge Activation: Accessibility, Applicability, and Salience'.

who and *he*, because the salience of the percept of the crucified Jesus makes him a highly accessible referent, overwhelming other singular concepts in their memory.

4. Assumptions and concepts in long-term memory that are activated by ones in working, short-term, or sensory memory

The content of long-term memory is commonly called one's 'knowledge'. Quine characterized it as one's 'web of belief'.[48] Parts of it are excited into greater accessibility by other inputs and thoughts. Writing from a hermeneutical perspective, Cotterell and Turner called this one's 'presupposition pool'.[49]

Long-term memory was discussed in Chapter 1, where it was noted that it includes both conceptual and episodic information, generally stored in schematic structures which are themselves part of a larger neural network. Prior to stimulation from a speech event or perception, the neurons in this network are already in different states of activation, and the connections among them vary in their excitation potentials. The connections among concepts in a schema tend to be strong. When a verbal stimulus activates neurons in this network, the activation spreads to others linked with them, thereby enhancing their accessibility. Some concepts or assumptions get activated from multiple neural pathways, resulting in a multiply excited state of activation, which makes them highly accessible.[50] In other words, if one is processing the statement 'God is love', then the concept of GOD that is evoked by the word *God* will activate concepts and assumption linked to her GOD concept, making them more accessible for contextual assumptions, and those concepts mildly activate additional ones.

In the story of the leper in Luke 5:12–14, the very mention of a Jewish leper would have activated the whole schema of Jewish practices and beliefs regarding the disease and people who have it. This would have included assumptions that lepers are unclean, that they are not allowed to associate with non-lepers, that they may not enter the temple, and that if healed, they are not clean until they show themselves to a priest, are declared clean, and make an offering.[51] So these concepts and assumptions would have become highly accessible from the moment the LEPER concept was evoked.

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[48] See Quine and Ullian, *The Web of Belief*.

[49] Cotterell and Turner, *Linguistics*, 257; Green and Turner (eds.), *Between Two Horizons: Spanning New Testament Studies and Systematic Theology* (Grand Rapids: Eerdmans, 2000) 49. For a similar usage see Brown and Yule, *Discourse Analysis* (Cambridge: Cambridge University Press, 1983), 80.

[50] See Sperber and Wilson, *Relevance*, 140. They describe this from a cognitivist perspective:

> A second way of extending the context is to add to it the encyclopaedic entries (or possibly smaller chunks of encyclopaedic information, taken from these entries) of concepts already present either in the context or in the assumption being processed.

[51] See Lev 13–14; 2 Chr 26:21.

Sperber and Wilson describe this process as 'extending the context', which they understand to be the result of **spreading activation**.[52] Spreading is not even, however, in all of the conceptual network. According to Jean Aitchison, vertical links up and down the ontological hierarchy (e.g. TERRIER, DOG, MAMMAL) are weaker than are the horizontal links within semantic fields, and 'within these fields, two types of link seem to be particularly strong: connections between coordinates and collocational links'.[53] So the links between DOG and CAT and between DOG and BARK are stronger than that between DOG and MAMMAL and hence more likely to activate one another. In some theories of reading, activation of coordinates and common collocations is called **cohort activation**. This is described by van den Broek et al:

> When a concept is activated, other concepts that are connected to it (i.e., its cohorts) will be somewhat activated as well … the amount of activation for a secondarily retrieved concept is a function of the strength of its relation to the primarily retrieved concept and of the amount of activation that the primary concept received. Furthermore, it is a function of a cohort-activation parameter that captures the extent to which activation of a primary concept is transferred to members of its cohort. This parameter can range from 0 (no cohort activation) to 1 (activation of cohort concepts is maximal).[54]

The activation serves a second purpose as well, and that is the acceptance and assimilation of new information with existing knowledge:

> If cohort activation is strong, the textual information will be strongly integrated with all prior information as well as with background knowledge.[55]

I would argue that one of the values of intertextuality, as seen in Matthew and Revelation, is that it encourages this process of activating and connecting with information already known to the reader.

Cohort activation can result in the multiple activation of some knowledge units. Remember that each conceptual feature will set off a spreading activation, so when several pathways of activation converge onto the same concept or assumption, its excitation level is raised to a high activation level. This seems to fall under the category of what Higgins describes as **applicability**:

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[52] See Sperber and Wilson, *Relevance* , 279. For a summary of spreading activation, see Smolensky, 'Connectionist Approaches to Language', in Robert A. Wilson and Frank C. Keil (eds.), *The MIT Encyclopedia of Cognitive Sciences* (Cambridge, MA: MIT Press, 2001). For an interactive demonstration of spreading activation among nominal lexical concepts, see http://pespmc1.vub.ac.be/SPREADACT.html

[53] Aitchison, *Words in the Mind: An Introduction to the Mental Lexicon* (3rd edn.; Oxford: Blackwell, 2003), 101.

[54] van den Broek et al., 'The Landscape Model of Reading: Inferences and the Online Construction of a Memory Representation ', in Herre Van Oostendorp and Susan R. Goldman (eds.), *The Construction of Mental Representations During Reading* (Mahwah, NJ: Lawrence Erlbaum Associates, 1999), 71–98, 77.

[55] van den Broek et al., 'Reading', 91.

> Which knowledge unit is used also depends, however, on the feature overlap between different knowledge units and the stimulus. High applicability to the stimulus could result in a knowledge unit being used that was not as accessible as alternatives.[56]

In other words, the more features a concept has in common with the stimulus, the more applicable it is said to be, and the more likely it is to be activated.

A special form of applicability is verbal **intertextuality**, which was discussed in the previous chapter. The use of a familiar wording in the text can evoke remembrance of another passage where that wording was used, and activation can spread from there to related information. In Romans 12:20, Paul issues a directive to Christians to be kind to their enemies and not to take vengeance:

> If your enemy is hungry, feed him; if he is thirsty, give him something to drink; for by so doing you will heap burning coals on his head.

Paul is repeating the wording of Proverbs 25:21, which has this graphic expression for instilling remorse in someone. His use of this memorable expression would have evoked the full verse to any of Paul's hearers who knew it, including the verse's motivational ending: 'and the LORD will reward you'. So Paul can implicate the motivational rationale through the intertextuality of his text without actually mentioning it. Note that this is different from the intertextual premises that were discussed in the previous chapter, in that the implication of the rest of the proverb is not by inference but simply by evocation (i.e. remembrance).

An important biblical example is the voice from heaven which proclaimed to Jesus at his baptism, σὺ εἶ ὁ υἱός μου ὁ ἀγαπητός, ἐν σοὶ εὐδόκησα 'You are my beloved Son; with you I am well pleased' (Mark 1:11 parr.). Scholars are virtually unanimous in seeing overt intertextual links between each of these clauses and Psalm 2:7 and Isaiah 42:1, respectively:

> I will tell of the decree: The Lord said to me, "You are my Son; today I have begotten you.
>
> Behold my servant, whom I uphold, my chosen, in whom my soul delights; I have put my Spirit upon him; he will bring forth justice to the nations.

These links activate the concept of the regal and victorious Son of God that is developed in Psalm 2 and unite it with the concept of the righteous, longsuffering, salvific Servant of YHWH, which is developed in Isaiah 42:1–9; 49:1–7; 50:4–11; 52:13–53:12. Thus the brief proclamation from heaven at Jesus' baptism was able to bring to remembrance, to those familiar with the biblical intertext, information that is now predicated of Jesus and his mission.[57]

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[56] Higgins, 'Knowledge Activation', 164.

[57] The characterizations in Psalm 2 and Isaiah overlap a great deal and already suggest a unique referent. Psalm 2 was included among the Messianic passages listed in 4Q174, albeit in fragmentary form, and the Babylonian Talmud quotes it as Messianic in Sukkah 52a. The Targums usually mark a passage as Messianic by adding to it somewhere the word מְשִׁיחָא 'the Messiah' or מַלְכָּא מְשִׁיחָא 'the King Messiah', but this word already occurs in Psalm 2:2. The Targum adds מְשִׁיחָא 'the Messiah' to the

5. Long-term concepts and assumptions further down the line of activation.

The context includes all of the information in the first four categories. If that context fails to provide an interpretation with positive cognitive effects, then the mind can extend the context within long-term memory, presumably along lines of neural activation, searching for concepts and assumptions that can interact with the text to produce positive cognitive effects. Sperber and Wilson describe the process as follows:

> The selection of a particular context is determined by the search for relevance. It is not that the context is determined, and then relevance is assessed. On the contrary, people hope that the assumption being processed is relevant … and they try to select a context which will justify that hope: a context which will maximise relevance.[58]

Note that this is quite different from the way context has been viewed previously in hermeneutics, namely as something fixed in content, vague in scope, and outside the mind. On the contrary, the context is entirely mental knowledge, and it is constructed by the mind as well. This process is not arbitrary, however, but highly principled, which is why the author can predict his authorial audience will infer a particular context, and they do. And using the same principles, the exegete can try to reconstruct it.

The next section will present factors that determine the inherent accessibility of concepts and assumptions in long-term memory, prior to verbal stimulation.

Hermeneutical points

- The author forms a model context of relevant information drawn from his audience's cognitive environment, as he understands it, and he composes a text to go with that context to produce the intended cognitive effects in his audience. The text and context together constitute his means of communication. He then expects his authorial audience to use that text to identify the intended context via the principle of relevance.
- The context is dynamic, but at any moment it includes the contents of working memory, short-term memory, perceptual memory (where relevant), and text-activated portions of long-term memory that are relevant to the discourse.
- The author's audience repeatedly hypothesize the context, test the results, and make adjustments, until they find the context that provides optimal relevance.
- If the cognitive environment of the readers matches that of the authorial audience, then they usually succeed in inferring the author's intended context and his intended meaning as well. This is nothing short of astounding, yet it is commonplace whenever the authors and speakers know their audience and are good communicators.

Isaianic Servant Songs at the beginning of the final one at 52:13: הֶ֚אָ יַצְלִ֣יחַ עַבְדִּ֔י מְשֻׂכָּ֖אָ 'Behold my Servant the Messiah shall prosper'. Both sets of passages are assumed in the New Testament to be Messianic and are cited accordingly of Jesus.

[58] Sperber and Wilson, *Relevance*, 141, 142.

- Spreading/cohort activation is a major means for both the identification of context and the assimilation of new information into existing structures.

6.7. Inherent accessibility of assumptions and concepts in long-term memory

Cognitive scientists have made progress in understanding factors that contribute to the accessibility of concepts and assumptions, although more progress is needed.[59] E. T. Higgins distinguishes several kinds of factors that affect what he calls 'knowledge activation': availability, applicability, inherent accessibility, salience, and expectancy/goals.[60] Most of these were discussed above, but now we turn to inherent accessibility.

Inherent accessibility

An assumption or concept is inherently **accessible** to the extent that it could be readily activated prior to the **stimulus event**; that is, inherent accessibility is independent of the speech event. The three main contributors to inherent accessibility are well known to cognitive researchers: **chronicity**, **recency**, and **frequency**.

Chronicity. An assumption is **chronic** if it has been activated repeatedly over a long time and become **entrenched**. This leaves it at a higher inherent accessibility for re-activation. Often these assumptions are basic beliefs and concepts of a person's worldview, cultural environment, or daily activities. Chronic assumptions usually have well-entrenched connections to many other concepts and assumptions, and so they are easily activated through them. Higgins rates chronicity as the most influential contributor to inherent accessibility:

> Many variables determine what knowledge is used to respond to a stimulus. … Among available knowledge units, those knowledge units that are more chronically accessible are more likely to be used. But if a knowledge unit has been recently or frequently primed in the current context, then it might be used instead of a chronically accessible unit.[61]

Recency. After a knowledge unit (concept or assumption in memory) has been activated, it does not return immediately to its former state. Instead, its excitation level **decays** gradually over time. The higher the level of residual excitation, the more readily it can be re-activated. So the more recently a concept or assumption has been activated, the more accessible it is. For

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[59] For more on recency, frequency, immediacy, frames, and entrenchment, see Barsalou, *Cognitive Psychology*, 126, 226–228, 244–246, 257, 283.

[60] Higgins, 'Knowledge Activation'. He uses the term *accessibility* for what I and some others have called inherent accessibility. See for example Van Nice and Dietrich, 'Animacy Effects in Language Production: From Mental Model to Formulator', in Holden Härtl and Heike Tappe (eds.), *Mediating between Concepts and Grammar* (2003), 101–118. I will use *inherent accessibility* in my review of Higgins' research.

[61] Higgins, 'Knowledge Activation', 164.

example, recency helps the hearer to resume a broken topic span and identify referents that have gone unmentioned for a while.

Frequency. The decay of an excitation level can be slowed if the knowledge unit has been activated frequently in the recent past. So concepts and assumptions which have been frequently activated in the recent past are re-activated more quickly than others.

These three factors work together to make certain concepts and assumptions more accessible. This is especially significant in the disambiguation of polysemous lexemes, with the result that the more commonly activated concepts and assumptions are activated first and their relevance tested. Harley sums up empirical research in this area (under the single term *frequency*):

> How we access the meaning of ambiguous words depends on the relative frequencies of the alternative senses of the ambiguous word and the extent to which the disambiguating context constrains the alternatives.
> When we come across an ambiguous word, all its meanings are activated, but the context is very quickly used to select the appropriate sense.[62]

Hermeneutical points

- Chronicity, recency, and frequency work together to determine the inherent accessibility of knowledge in long-term memory. Hence they can affect the order in which lexical concepts (senses), singular concepts (referents), and contextual assumptions (implicit premises) are tested for positive cognitive effects during the comprehension of an utterance.
- Since the addressee stops considering further hypotheses as soon as her presumption of relevance has been satisfied, the order of accessibility is significant for the comprehension process.
- The speaker operates on the same principle in his unconscious mind, expecting his addressee to accept the first relevant interpretation she reaches when trying different hypotheses in their order of accessibility within her context. Therefore he automatically composes his text to produce his intended meaning when it is processed within a context in which the implicated concepts and assumptions are available with the relative accessibility of his audience. Thus *an awareness of relative accessibility within the authorial context is significant for the reconstruction of authorial meaning*.

This is a topic on which more research, both psycholinguistic and hermeneutical, is needed.

Hermeneutical note

Joel Williams presents several interpretations of the pericope of the Gentile Syrophoenician woman at Mark 7:24–30, with a focus on Jesus' statement about dogs in verse 27 below.[63]

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[62] Harley, *The Psychology of Language: From Data to Theory* (2nd edn.; Hove, Sussex: Psychology Press, 2001), 176.

> [26]Now the woman was a Gentile, a Syrophoenician by birth. And she begged him to cast the demon out of her daughter. [27]And he said to her, "Let the children be fed first, for it is not right to take the children's bread and throw it to the dogs." [28]But she answered him, "Yes, Lord; yet even the dogs under the table eat the children's crumbs." [29]And he said to her, "For this statement you may go your way; the demon has left your daughter."

Williams' conclusion is that it is a test of faith for the woman, which she passes with humility. Space does not allow us to review here the arguments found in the literature on this passage, but we can consider how appeal to accessibility might help us address the questions of how her response qualified her for Jesus' help and why Mark included this pericope at this point in his narrative.

The Syropheonician pericope follows one in which Jesus says that people are rendered unclean, not by what goes into them, but by what comes out of their heart, such as 'envy, slander, pride' etc. When the Syrophoenician woman asks Jesus for his help, he says that children take priority over dogs, and she agrees with him, with no evident anger, envy, or wounded pride at the slight. Jesus says because of the way she responded, he will grant her request.

Mark could expect, in his unconscious at least, that the mention of Gentiles and dogs would activate his readers' concept of UNCLEAN PEOPLE, which was highly accessible to them from its recency in the previous pericope as well as its frequency and chronicity in a Jewish culture highly concerned to avoid defilement. Mark could also expect the concepts of PRIDE and ENVY to be readily accessible to his readers from their recent activation in the previous pericope, enabling the readers to note the lack of pride and envy in the woman's response. These links would remind them of that pericope and allow them to infer that the Gentile woman's humble response indicated she was clean rather than unclean and hence that Gentiles are not unclean if they respond well to Jesus. This inference prepares them for the surprise that follows, namely Jesus' mission into the Gentile Decapolis region, where he heals a blind man and teaches and feeds over 4,000 people. So the pericope of the Syrophoenician can be seen as mentally preparing Mark's readers for Jesus' mission to the Gentiles, just as Peter's vision of unclean animals in Acts 10 prepares him and the readers for his subsequent mission to the Gentiles.

6.8. Conclusion

As noted in Chapter 2, Plantinga, Alston, and other naturalized epistemologists argue that the evaluation of a truth claim should be grounded in evidence and proper cognitive functioning. Here I have put a twist on that by arguing that the evaluation of an interpretation should be

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[63] Williams, 'Mark 7:27: Jesus' Puzzling Statement', in Darrell L. Bock and Buist M. Fanning (eds.), *Interpreting the New Testament Text: Introduction to the Art and Science of Exegesis* (Wheaton: Crossway Books, 2006), 341–349.

grounded in evidence drawn from a model of proper cognitive functioning during communication. I have presented an outline of a sociocognitive model that can be used to reconstruct the process by which a particular utterance transmitted particular information to an addressee in a specific context. Although words and sentences are polysemous, and implicatures are unstated, hypotheses about them can be tested by subjecting them to this process to see which interpretation is most plausible.

7. The Translation and Elucidation of Scripture

Hermeneutics is the art of relating discourse and understanding
to each other — Schleiermacher, 1819[1]

The task of translating lies at the heart of hermeneutics. — Brisco[2]

7.1. Reconstructive hermeneutics

The primary goals of sociocognitive hermeneutics, as presented herein, may be stated sequentially as follows:

Exegetical hermeneutics:

1. Provide a sociocognitive framework for reconstructing a biblical author's evident informative intent for his authorial audience, including reconstruction of his context for that audience.

Contextual hermeneutics:

2. Provide sociocognitive principles for recognizing the significance of an author's meaning for contemporary topics of interest.
3. Provide sociocognitive-based strategies for helping contemporary readers and hearers to comprehend the communicative events represented in the Bible and the significance of those events for their own sociocultural context.

The previous chapters discussed the first goal, noting that the author's informative intent is revealed in the cognitive effects that would have been produced in his authorial audience through the inferential interaction of his text and his model of their context. This supports the view that authorial meaning is found neither in the text nor in the response of random readers but in the predictable effects of the text when processed by the author's intended audience within their own cognitive environment, as envisaged by the author.

In this chapter we consider the second and third goals, namely (2) inference of significance for today and (3) elucidation of both the original meaning and its significance to contemporary audiences. Here the role of the interpreter as astute observer becomes especially prominent.

I have created some diagrams as a review. Figure 7-A represents text-centred interpretation, where the interpreter examines the text and its background to discover its meaning. Figure 7-B

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[1] Schleiermacher, 'Hermeneutics', 85.

[2] Brisco, 'Translations and Hermeneutics', in Bruce Corley et al. (eds.), *Biblical Hermeneutics: A Comprehensive Introduction To Interpreting Scripture* (2nd edn.; Nashville: Broadman, 2002), 230–241, 230.

represents a reader-response model, in which readers interpret the text in accord with their preunderstanding and the traditions of their interpretive community. Figure 7-C represents reconstructive exegesis of the original communicative event, in which meaning is based on sociocognitive analysis of how the author could have expected his authorial addressee to comprehend his text within a context of their own cognitive environment.

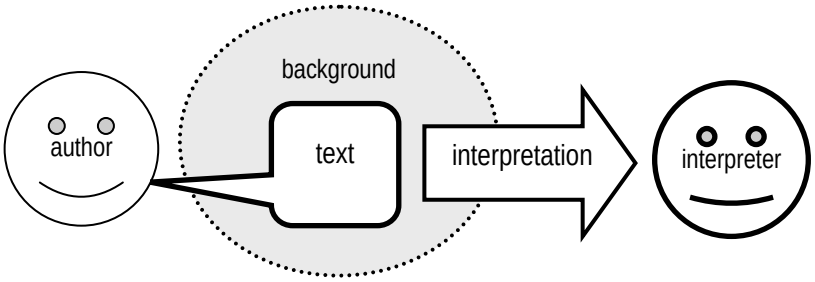

Figure 7-A Text-centred interpretation

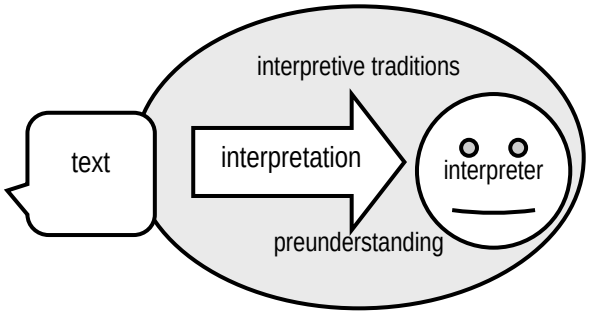

Figure 7-B Reader-response interpretation, based on tradition and preunderstanding

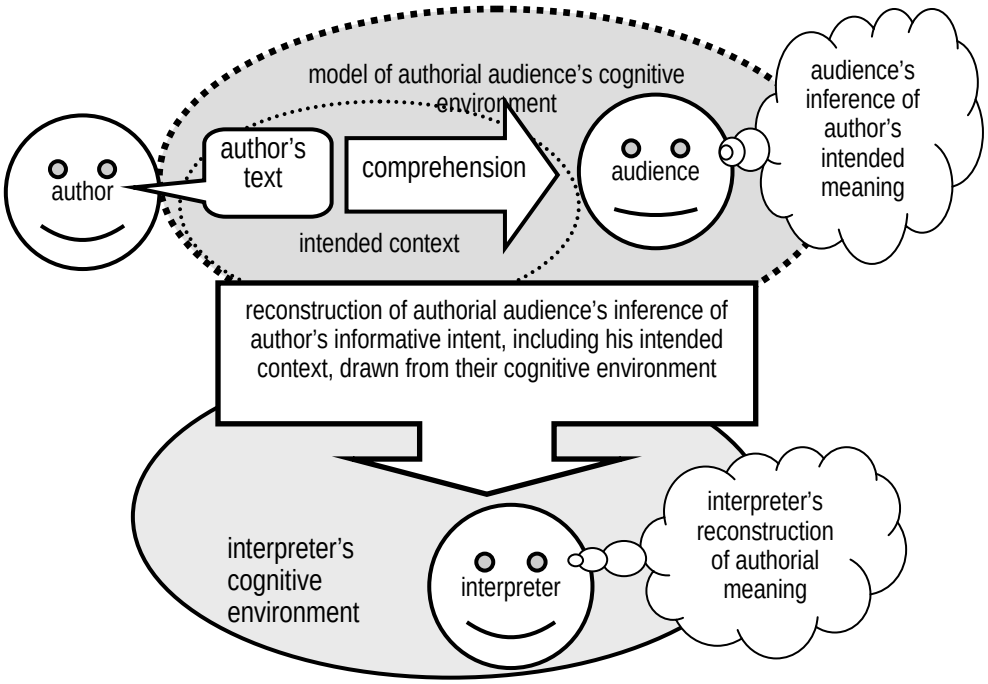

Figure 7-C Reconstruction of meaning communicated by the author

Whereas most theories of interpretation focus on the author, the text, or the readers/interpreters, a reconstructive model is based on a sociocognitive reconstruction of the original communicative event, in which the author expected his informative intentions to be inferred by his envisaged audience based on the presumption of optimal relevance and a context of their cognitive environment. In contrast to some hermeneutical models that treat the modern reader as the direct addressee of the text, this reconstructive model places the modern reader as an observer-interpreter listening in to the communication from outside. It also recognizes the context of the authorial audience as a co-determinant of authorial meaning, along with the text.

As an astute observer of the original communicative event, the interpreter can reconstruct the flow of meaning to recover the author's evident informative intent. She can then infer additional contextual implications of the author's meaning for her own cognitive environment, yielding its significance for her. This is represented in Figure 7-D below.

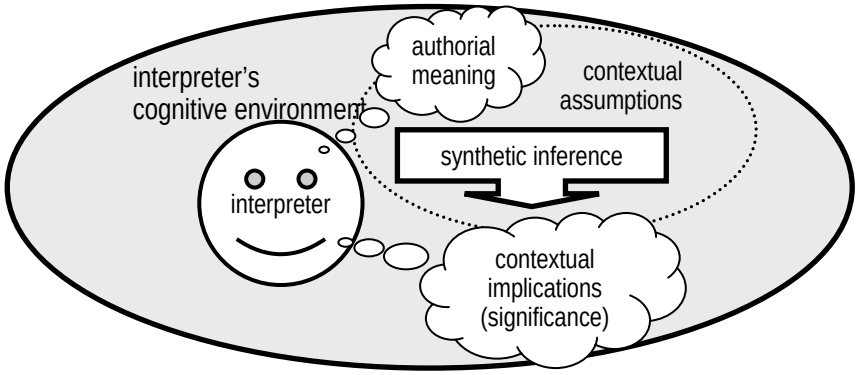

Figure 7-D Significance: contextual implications for the observer's context

The interpreter can also help contemporaries less astute than herself to understand the author's meaning and its significance for their own context. That is the subject of what follows.

7.2. Interpretative macrogenres

The third goal of a reconstructive biblical hermeneutic is to help others understand the meaning and significance of the communicative events represented by the biblical texts. This involves a second communication, one in which the interpreter elucidates the original communicative event to her own audience, contextualizing her remarks to their cognitive environment. This elucidative communication can take any of several different forms, such as a summary, an exposition, a translation, or a free retelling.

We can characterize these general forms as **macrogenres**. Although each of them could utilize a variety of literary genres, they nevertheless follow certain general patterns. An **exposition**, for example, usually includes much more commentary than biblical text, and it might have selections of text rather than extended portions. A translation, on the other hand,

typically includes extended portions of biblical text as the **translated text**, while providing more limited amounts of conceptual and background information in the **paratext,** meaning the marginal notes, introductions, glossary, cross-references, and other annotations. More specifically, a **commentary** may be regarded as an exposition that includes an extended translated text (or original text), while a **study Bible** or **annotated translation** may be regarded as a translated text with a large paratext.

A **free retelling**, on the other hand, recontextualizes the original communicative event as if the original author were addressing it to the modern reader. In other words, the message is recontextualized for a contemporary audience rather than for the authorial audience. This macrogenre is typical of children's Bible stories. A **radical retelling** might even recontextualize the Parable of the Good Samaritan as a Palestinian Muslim Arab who helps an injured Israeli Jewish settler, thereby introducing anachronisms. An extended example of this approach is the *Cotton Patch Gospel* by Clarence Jordan.[3] Some preachers retell stories like this in their sermons to 'bring the message home' by situating it in a modern context.

The message can also be recommunicated as a **free summary** of the main point. The point of the Parable of the Good Samaritan, for example, might be summarized by saying, 'Jesus said we should be kind to everyone we meet, regardless of their race, religion, or nationality.'

My concern here is only with exposition and annotated translation. In §7.4 I identify distinct kinds of sociocognitively helpful information that an expositor can provide to her audience to help them reconstruct the context and make valid inferences regarding authorial meaning, with special attention to optimizing the value of biblical commentaries. This lays the groundwork for a sociocognitive theory of annotated Bible translation, which is presented in §7.6.

7.3. Exposition: exegetical aspects of a sociocognitively optimal Bible commentary

An **expositor** typically reports elements of the original communication, then elucidates their meaning in a suitably contextualized way that enables her audience to reconstruct how the original communicative event might have been understood. By explaining to her audience the concepts and contextual assumptions that the author's text would have evoked in the authorial audience and the contextual implications they would have inferred from it, she can walk her own audience through a reconstruction of the original comprehension process. We can describe this kind of elucidation as **exegetical exposition**, and we can describe its goal as enabling contemporary readers to reconstruct the explicatures and implicatures that the authorial audience would have inferred from the author's text in their context. Thus the expositor helps

[3] For this use of the term 'retelling' and discussion of the topic, see Boswell, 'Classifying "Cotton Patch Version" and Similar Renderings as Adaptive Retelling rather than Translation', *Hermeneus*, 8 (2006), 45–66.

the readers to avoid interpreting the text automatically in their own cognitive environment and to exegete the meaning in a controlled, reconstructive fashion, with the help of Relevance Theory. Hill has demonstrated that annotating Scripture texts with implicated contextual assumptions leads to significant increases in the recovery of authorial meaning and thereby enhances motivation as well to keep reading and exegeting.[4] Note that exegetical exposition differs from summarizing and retelling, since neither of these lead the audience through an exegetical reconstruction of the original communicative process.

Once the expositor has helped her audience to reconstruct the beliefs, values and feelings that the author sought to communicate to his audience, the expositor can help her audience infer some of the significance of those beliefs and values for their own cognitive environment. In Matthew 5:22, for example, Jesus warns his followers not to say to their brother ῥακά (רקא/ריקה, Vulgate, KJV, NKJV, NIV *raca*). Once the expositor has explained to her audience that (1) *raca* is a mild term of contempt meaning something like 'useless' and that (2) Jewish methods of teaching and jurisprudence anticipated application by analogy and not just deduction from generalizations, she can help her audience to consider analogous terms of contempt in their own language. Contemporary English translations have used *good-for-nothing* (NASB, CJB, REB), *idiot* (NLT), and *fool* (CEV, CSB, NJB), but one can think of *riffraff*, *knucklehead*, *scumbag*, and a host of other terms. The expositor might help her audience abduce plausible generalizations from this verse, such as 'Do not insult others' (cf. ESV, NET, NRSV). She might also ask if the analogy (and abductive generalization) applies only to contemptuous epithets or extends as well to contemptuous attitudes. In this way she helps her audience to recognize the significance of the author's message for their own context and to assimilate it into their current knowledge, including changes where applicable to their current beliefs, values, and practices.

The application of significance to the audience's context is sometimes called 'contextual interpretation', but this term is also used for reader-centred attempts to interpret the text by recontextualizing it within the reader's own cognitive environment while disregarding authorial context and meaning. So it seems more appropriate to use a different term, such as **contextual exposition**, to describe what an expositor does when she helps her audience recognize the implications of the author's message for their own context. Another term in common use for this is *contemporizing*, although this is used rather loosely.[5]

Expositors often take the role of commentators on a biblical text, presumably with the goal of helping others understand the author's informative intent and its significance for today. A sociocognitive hermeneutical framework allows us to identify several distinct kinds of

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[4] Hill, *The Bible at Cultural Crossroads: From Translation to Communication* (Manchester: St. Jerome Publishing, 2006).

[5] See for example Erickson, *Evangelical Interpretation: Perspectives on Hermeneutical Issues* (Grand Rapids: Baker, 1993), 56.

information that are needed for different aspects of this task, divided among those which are needed for a reconstruction of authorial meaning, listed in Table 7-A below, and those which are helpful for inferring significance, shown in Table 7-B. The commentary might also discuss significant variants among witnesses to the original text. I submit that an **expository commentary** or study Bible can maximize relevance for most readers by providing information from the exegetical categories in Table 7-A that help readers to recover meaning as well as comments from the application categories in Table 7-B that help readers to infer significance.

Table 7-A Kinds of information needed for inference of authorial meaning (exegesis)

1. Pragma-semantic information	facilitates recovery of semantic and pragmatic information by discussing relevant senses, by explaining their conceptual content (both public and authorial), by identifying their evident referents in the current text, by explicating implicit sentence elements (such as unexpressed semantic arguments), so that explicatures can be formed as interpretations of sentences.
2. Linguistic information	explains relevant nuances of the source-language grammar, lexicon, and discourse structure, including idiolectal elements of the author's own style and usage, and might include alternative ways of translating the source text.
3. Intertextual information	identifies the presence and relevance of verbal and semantic allusions to texts in prior literature that would have been known to the original readers, as well as noting parallels and allusions to the same text that occur elsewhere in the Bible and related literature.
4. Contextual assumptions	specify implicated premises from background information that might not be accessible to contemporary readers.
5. Implicated conclusions	are contextual implications the author manifestly intended his readers to infer. The expositor might explicate them to facilitate or confirm inferences by contemporary readers, especially if they have difficulty accessing or utilizing the necessary contextual premises implicated by the author.
6. Interpretive traditions	are influential ancient or modern traditions regarding the meaning of a term or passage. The readers need to be aware of them so they can distance themselves from the bias of their own traditions and later reconsider those traditions more objectively.

These categories are not arbitrary but represent distinct loci of knowledge in cognition and society:

1. Conceptual systems are developed and transmitted under shared social influences, but the conceptual information exists as a neuronal network involving many parts of the cerebral cortex.
2. Linguistic information is also developed and transmitted under shared social influences, but in the brain it is largely restricted to Wernicke's area (grammar) and Broca's area (lexical forms).
3. Intertextual information exists in a body of literature that was familiar to the authorial audience.
4. Contextual assumptions are beliefs that were accessible to the authorial audience from memory, perception, and inference.
5. Implicated conclusions are beliefs that the author expected the authorial audience to infer.
6. Interpretive traditions are beliefs about texts that are developed and transmitted under shared social influences.

These categories can be subcategorized further if that is helpful to readers, as the American Bible Society has done for the first category above. In their *Learning Bible* they devote a side column on every page to the provision of background information, which is subcategorized into five groups, most of which are themselves aggregates: (1) geography, (2) people and nations, (3) objects, plants, and animals, (4) history and culture, and (5) ideas and concepts.[6]

The list in Table 7-A above does not include citations of the scholarly literature as a separate category; rather it is assumed that commentators will cite the ancient and modern literature where relevant in each of these categories. The degree to which commentators interact with tradition and scholarship depends on their goals and intended audience, but such citations are exegetically useful, I submit, only insofar as they provide relevant information in one of the categories above.

The first category above involves explication of a sentence's pragma-semantic meaning. This is critical to communication, because a sentence is nothing more than a string of symbols until one has explicated its likely semantic and pragmatic intentions by assigning concepts and referents wherever suitable; only then can it represent a proposition, have an epistemic status, be an object of belief or dispute, or be used to perform a speech act. Pragma-semantic information includes, on the semantic side, the concepts people had of various people, places, societies, institutions, customs, events, plants, animals, spiritual beings, artefacts, natural objects, and abstract qualities. It is only the relevant features of these concepts that the commentator needs to mention, and only if they differ significantly from features which readers imagine on the basis of their own conceptual systems. On the pragmatic side, it includes identification of referents and relative locations. In 2 Timothy 1:18, for example, the word

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[6] American Bible Society, *The Learning Bible, New International Version* (New York: American Bible Society, 2003), 6.

κύριος ‘Lord’ occurs twice: δῴη αὐτῷ ὁ κύριος εὑρεῖν ἔλεος παρὰ κυρίου ἐν ἐκείνῃ τῇ ἡμέρᾳ. ‘May the Lord grant him to find mercy from the Lord on that Day.’ In the first instance the term is articular and links semantically to a singular concept, which as Seyoon Kim describes it, is THE DIVINELY APPOINTED UNIVERSAL LORD,[7] with Jesus the Messiah as the intended referent. In the second instance the term is an anarthrous proper noun and links semantically to a singular concept of YHWH, with God as the referent.

The commentator also needs to explain concepts for archaic and unfamiliar categories, such as Pharisees, Sadducees, Herodians, Caesars, Pharaohs, procurators, centurions, etc. So a second goal for an expositor is to help her audience understand relevant aspects of the cognitive environments of the biblical authors, including their concepts and schemata. She does this in part by providing needed semantic and pragmatic information, namely explanation of the concepts the author evoked in a particular text and the references he would have made with them.

As for implicated contextual premises, awareness of them is essential to interpreting any utterance. In the case of historical and cross-cultural texts like the Bible, many of the needed contextual assumptions lie outside the cognitive environment of the contemporary readers or are only marginally accessible. So the expositor needs to remind her audience that the author was operating with a different set of contextual assumptions from what they might assume, and was expecting a different set of contextual implications as a result. So she needs to provide contextual premises that her audience cannot access on their own. The expositor might find that her audience is nevertheless drawing inferences from their own assumptions rather than those of the authorial audience, due to their higher accessibility, so she might need to lead them to the contextual implications that the author evidently intended. This is the purpose of the fourth and fifth categories of information in Table 7-A.

Without awareness of interpretive traditions, readers remain the unwitting slaves of those traditions. Gadamer did not object to this. He embraced the prejudice of interpretive traditions as both inevitable and desirable,[8] while Ricoeur viewed a community’s ‘history of reception’ as an inescapable determinant of interpretation.[9] Their views were consistent with the goals of phenomenological hermeneutics, which is concerned with the reader’s reception of the text rather than with reconstruction of authorial meaning. But for readers who want to understand

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[7] See Kim, *Christ and Caesar: The Gospel and the Roman Empire in the Writings of Paul and Luke* (Grand Rapids & Cambridge: Eerdmans, 2008), passim. Caesar’s followers made the same unique claim for him, and Festus evokes this concept with reference to Caesar in Acts 25:26.

[8] Gadamer, *Truth and Method*, Chap. 4.1.

[9] Ricoeur, ‘From Interpretation to Translation’, in Andre Lacocque and Paul Ricoeur (eds.), *Thinking Biblically: Exegetical and Hermeneutical Studies* (Chicago University of Chicago Press, 1998), 331–361, 332.

the authorial meaning and its significance, insofar as this is possible, they want to be both aware of interpretive traditions and free of their prejudicial effects.

On the other hand, as Max Turner points out, the various streams of interpretive reflection extend back for two thousand years, and the reader can benefit from gathering these voices around the table. Although the reader's own theological tradition will bias the interpretive process, she can offset this bias by considering the interpretive reflections of other theological traditions.[10] Poythress and Frame regard this 'multiperspectivalism' as vital for epistemology as well as for hermeneutics.[11] A valuable extension of this approach has been advanced by Caldwell as 'ethnohermeneutics', in which interpreters from different cultures and worldviews share the insights afforded them by their particular backgrounds.[12] For example, people from shame cultures or from cultures distinguishing clean things from unclean things understand these aspects of the biblical narrative more readily. The goal of this collective reflection is to inform and improve each person's own understanding of the biblical message.

In light of the different kinds of information involved in biblical interpretation and the distinct sociocognitive roles played by each one, it would seem helpful if commentaries focused on identifying and providing the information their readers need from each of these categories. As it is, when one examines current exegetical commentaries, one finds that some of them focus primarily on data relevant for filling out the explicature while giving less attention to the implicatures. In other words, they discuss concepts, referents, grammatical features, allusions, and discourse structure but give less attention to implicated contextual premises and conclusions beyond the identification of implicit themes and main points. Yet there are many contextual assumptions which the authors assumed their readers would access and utilize to recover their full informative intent but which contemporary readers fail to access. Commentators familiar with enthymemes in rhetorical criticism will sometimes mention an implicit premise presupposed by an explicit conclusion, but they rarely identify implicated conclusions, especially if they are based on implicit premises. That is probably good practice in study Bibles, where the annotators can provide implicit premises and let the reader draw the implicit conclusions, but if a commentary is going to discuss the original meaning of a passage, then it should not ignore implicated conclusions, since they carry much of the informative intent. Hoskisson and Boswell, for example, point out that the whole point of Sennacherib's messages in 2 Kings 18–19 to the leaders and residents of Jerusalem is that he will destroy

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[10] Turner, 'Hermeneutics', 57–60.

[11] See Frame, *The Doctrine of the Knowledge of God*; Poythress, *Symphonic Theology*.

[12] See Caldwell, 'A Response to the Responses of Tappeiner and Whelchel to Ethnohermeneutics', *Journal of Asian Mission*, 2/1 (2000), 135–144. Craig Blomberg discusses this as well in Blomberg, 'The Globalization of Biblical Hermeneutics', in Michael Bauman and David Hall (eds.), *Evangelical Hermeneutics: Selected Essays from the Evangelical Theological Society* (Camp Hill, PA: Christian Publications, 1995), 31–51.

them if they refuse to surrender, but the people are left to draw this 'enthymematic conclusion' on their own, since it is never explicitly stated.[13]

Study Bibles often fail to provide the most relevant information. This can be seen by examining nine of the best ones at Mark 1:40–44, where Jesus cleanses the leper (see list of abbreviations in the front matter):

Categories of essential information

1. Pragma-semantic information

   NIV, NET, HG, ISB, LB, NLT explain *leprosy*.

   OSG explains *clean*.

   ISB explains *unclean*, which is implicit.

   None explain *priest* and its referents.

2. Linguistic information

3. Intertextual information

   ESV, NET, NIV, ISG cite Lev 13–14.

   OSG cites Lev 13.

4. Contextual assumptions

   Related to leprosy:

   ESV, HG, ISG, NLT, OSG: Lepers were ritually unclean.

   HG, ISG, NET, NLT, OSG: Lepers were outcasts, isolated from society.

   ESV: Lepers were dependent on charity.

   DSB, NIV, NET, HG, ISB, LB: Touching a leper made a person unclean.

   Related to uncleanness:

   HG, ISB: An unclean person could not take part in formal worship.

   Related to cleanness (the man's request):

   ESV, LB: A clean person could live in society (again).

   Related to the priestly examination:

   HG, LB, NLT: An examining priest would certify that a leper was free of the disease.

   ESV, ISB: *A priest would declare the healed leper to be ceremonially clean, thereby permitting him to live in society and participate in worship.*

   Related to the location of the priest and hence the travel required:

   None

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[13] Hoskisson and Boswell, 'Neo-Assyrian Rhetoric: The Example of the Third Campaign of Sennacherib (704–681 B.C.)', in Carol S. Lipson and Roberta A. Binkley (eds.), *Rhetoric Before and Beyond the Greeks* (Albany, NY: SUNY Press, 2004), 65–78, 73–75. The authors show that it was common rhetorical practice in the Assyrian annals for the main conclusions to be left implicit.

5. Implicated conclusions

> ESV: ‘Jesus’ love, mercy, and power are such that his touch, instead of making Jesus unclean, actually makes the leper clean.’
>
> NIV: ‘Jesus’ compassion for the man superseded ceremonial considerations.’
>
> NLT: ‘Jesus’ willingness to touch a ceremonially unclean leper reflects the new order of the Kingdom of God.’
>
> **None**: *Thanks to Jesus, the man was now free to live in society and to participate in worship.*

These nine are some of the best exegetical study Bibles available, and they do well with this passage compared to others, yet only half of them mention that lepers were ritually unclean and social outcasts, and most of them fail to explain what was meant by *clean* and *unclean*. Worse yet, only two of them note the function of the leper visiting the priest, namely to be declared officially clean, so he could live in society again and could participate in worship, and none mention this as the anticipated result of the healing and priestly examination.

As for older works, a check of the *Geneva Study Bible*, *Matthew Henry Study Bible* and *Harper Study Bible* reveals they provide no conceptual or contextual information for this pericope. The HSB notes that Jesus is ‘master over disease’, but that is a simple abduction from statements in the text; it is not a contextual implication.

In summary, Bible commentators and annotators could maximize the exegetical value of their work for readers by (1) providing them with the most relevant information they lack from these sociocognitive categories, (2) guiding them in the use of this information to reconstruct the original communication of meaning, and (3) minimize information that lacks relevance for this task.

7.4. Exposition: applicative aspects of a sociocognitively optimal Bible commentary

The goal of exegetical exposition is to enable contemporary readers to recognize the author’s explicatures and implicatures. The effect of this information on the authorial audience was to expand or alter their existing concepts and to strengthen or weaken their current assumptions. These positive cognitive effects made the author’s meaning relevant and rewarding to them. Our contemporary readers want a reward as well, and it could be argued that the very purpose of the Bible is to challenge, strengthen, and enrich everyone’s concepts, values, and beliefs, regardless of their culture and situation. This can happen when propositions from the reconstructed authorial meaning act as co-premises with contextual assumptions of the contemporary reader to produce implications for the reader’s own context. If the original readers did not have these particular contextual assumptions, then they could not infer these contextual implications, and they cannot be considered part of the author’s meaning. They are

nevertheless valid inferences. So as noted in Chapter 5, a distinction exists between an author's meaning, which is based on a certain context, and additional inferences made from that meaning on the basis of assumptions outside that context and unforeseen by the author. I have identified these latter implications with what Hirsch, Kaiser, and Vanhoozer call the 'significance' of the author's message.

For example, a modern reader might have the value that it is good for drivers to let her merge into traffic when she is entering a busy highway ahead of them. She then reads the Golden Rule, which says whatever she wants others to do for her, this she should do for others as well. Her pre-existing value now becomes a contextual co-premise with the Golden Rule, yielding the implication that she herself should let other drivers merge into traffic when they are entering the highway ahead of her. This implication is based on assumptions in the modern reader's cognitive environment. There is no reason to think that it was part of Matthew's informative intention that drivers of cars should allow other drivers to merge into traffic. Therefore it cannot be considered part of Matthew's authorial meaning, yet it is still a valid and useful inference.

Expository commentators can facilitate the inference of significance by prompting their readers, where appropriate, to consider the implications of the author's message for interpreting other parts of the Bible, for reforming their theology and worldview, and for issues of contemporary life, culture and society. These three categories are described in Table 7-B below:

Table 7-B Comments for facilitating recognition and application of significance

1.	**Comments on canonical implications**	facilitate inference of implications of the author's wording and meaning for passages elsewhere in the canon, as well as implications drawn from premises elsewhere in the canon.
2.	**Comments and study questions on theological implications**	facilitate inference of implications of the author's meaning for contemporary theological reflection.
3.	**Comments and study questions on application**	facilitate inference of implications of the author's meaning for issues of contemporary life and culture.

For the biblical message to be relevant to contemporary readers, it must be assimilated into their current knowledge in a way that furthers their cognitive goals. Their current knowledge includes many assumptions that were not available to the biblical authors, such as assumptions about the solar system, the workings of the body, the germ theory of disease, the mechanics of weather, the geography of the earth, the quirks of human psychology, the dynamics of social interaction, etc. The purpose of comments on theology and application is to encourage readers

to reflect on the significance of the author's message for their own cognitive environments and to facilitate the incorporation of its implications into their worldviews. This is the point at which readers derive positive cognitive gains from reading the biblical text with a commentary. This is the reward that motivates readers and makes the processing effort worthwhile for them. A significant development in this direction is the *Two Horizons New Testament Commentary* series, edited by Max Turner and Joel Green, which seeks 'to bridge the existing gap between biblical studies and systematic theology'.[14] As for application comments, examples can be found in the *Life Application Bible* and the *Life Application Commentary*. Examples of study questions on implications for theology and life can be found in the *Ignatius Study Bible*.

We can summarize this discussion of exposition by recalling that an interpreter is like an astute cross-cultural observer of other people's conversation who can help a naïve friend understand the conversation's meaning and significance. Without the interpreter, the friend may fail to comprehend the meaning or fail to realize its significance. Adoption of a sociocognitive hermeneutic could help scholars produce expository commentaries that are successful at this, because such a hermeneutic can clarify what their audiences need to know and why they need to know it.

7.5. Translation as a hermeneutical activity

Translation is clearly a hermeneutical task. While Brisco might be right that 'the task of translating lies at the heart of hermeneutics',[15] it could be argued as well that a sound hermeneutic lies at the heart of good Bible translation. The term *translation* is commonly used to describe a broad range of interlingual activities, but it lacks an accepted technical definition.[16] It is agreed, however, that it includes the production of a **translated text** in a **target language** that metarepresents a **source text** in a **source language**. After chapters of discussion on this question, in which numerous theories of translation are considered, Nida puts it this way:

> In fact, translating is nothing more than understanding correctly the meaning of a text and then reproducing this meaning in another language in such a manner that the stylistic features of the source text are adequately represented directly or indirectly.[17]

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[14] For a description of the goals of this series, see the front matter in Green, *1 Peter*. The quoted text is from the back cover.

[15] Brisco, 'Translations and Hermeneutics', 230.

[16] For discussion see Nida, *Contexts in Translating* (Amsterdam and Philadelphia: John Benjamins, 2001). Nida laments the lack of agreement on what translation is and devotes four chapters to this question.

[17] Ibid., 103.

Nida argues, however, that the meaning to be communicated depends crucially on the context and the original culture, which determines the meaning of the concepts being communicated.

Hermeneutics has its historical and etymological origin in Greek discussions about translation, which they called ἑρμηνεία, meaning 'translation' or 'interpretation'.[18] The Greeks described two approaches to translation: μετάφρασις (Latin *metaphrasis*, English *metaphrase*) and παράφρασις (Latin *paraphrasis*, English *paraphrase*). *Metaphrasis* is word-for-word translation, in which source-language lexemes are replaced with semantically similar lexemes in the target language. *Metaphrasis* has its origin in the Greek practice of replacing archaic words of the Homeric literature with more current words, while retaining the poetic form.[19] So it was a form of word substitution, as in today's literal translations. The goal is to preserve the wording and structure of the original text, what the Latins called *venustas sermonis* 'manner of speaking'. In the modern era, a metaphrastic translation is described technically as having **formal resemblance** to the source text and is called a 'literal', 'word-for-word', 'reference', or 'liturgical' translation).[20]

Metaphrasis provides a high degree of what Deirdre Wilson calls **metalinguistic resemblance**, in that the translated text reflects many of the linguistic features of the source-language text.[21] But since the meanings of a lexeme consist of the concepts it typically evokes, a metaphrastic translation cannot preserve propositional meaning except in the case of a bilingual monocultural community that shares the same set of concepts and schemata. Even then, however, meaning preservation is threatened by the fact that polysemous lexemes evoke different sets of concepts in each language, allowing readers of the translated text to contemplate interpretations that were not possible in the source language. But in normal, cross-cultural translation the conceptual system of the target-language community is quite different from that of the source-language community, which makes it impossible for a metaphrastic translation to evoke the same concepts and schemata that were evoked by the source text in the cognitive environment.

Paraphrasis is thought-for-thought translation, in which propositions communicated in the source-language text are re-expressed in the target-language text. The goal of *paraphrasis* is to preserve authorial meaning, what the Latins called *mens auctoris* 'intention of the author'. Even today, the definition of paraphrase in logic is that of a restatement that preserves propositional truth value, regardless of wording. Psycholinguistic testing has shown that readers identify

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[18] See Szondi, *Introduction to Literary Hermeneutics*, trans. Martha Woodmansee (Cambridge and New York: Cambridge University Press, 1995), 6.

[19] Ibid., 6.

[20] According to the United Bible Societies, in a **liturgical translation** 'the focus is on key words and expressions that may function more as symbols and icons than as conveyors of information'. See United Bible Societies, 'Scripture Translation and the Churches', (Reading: UBS, 2005).

[21] Wilson, 'Metarepresentation'.

propositional content with authorial intent rather than with coded content and readily accept implicit content as part of the intended proposition.[22]

In 1964 Eugene Nida introduced the term *gloss translation* for *metaphrasis*, because the target-language text uses lexical glosses for the words of the source-language text in a word-for-word style. He wrote, 'Such a translation would require numerous footnotes in order to make the text fully comprehensible.'[23] Yet it has a value:

> A gloss translation of this type is designed to permit the reader to identify himself as fully as possible with a person in the source-language context, and to understand as much as he can of the customs, manner of thought, and means of expression. For example, a phrase such as "holy kiss" (Romans 16:16) in a gloss translation would be rendered literally, and would probably be supplemented with a footnote explaining that this was a customary method of greeting in New Testament times.[24]

He described this as a kind of 'formal equivalence'. Nida then introduced the term *dynamic equivalence*:

> A translation of dynamic equivalence aims at complete naturalness of expression, and tries to relate the receptor to modes of behavior relevant within the context of his own culture; it does not insist that he understand the cultural patterns of the source-language context in order to comprehend the message. Of course, there are varying degrees of such dynamic-equivalence translations.[25]

As an example of a highly dynamic translation, Nida cites J.B. Phillips' translation of ἀσπάσασθε ἀλλήλους ἐν φιλήματι ἁγίῳ 'Greet one another with a holy kiss' in Romans 16:16: 'give one another a hearty handshake all around'.[26] He went on to note that most translations fall between these two poles. In later works Nida and his colleagues developed translation techniques for improving the naturalness and comprehensibility of translations,[27] as did Beekman and Callow, followed by Mildred Larson, who called her approach 'meaning-based translation'.[28]

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[22] Nicolle, 'Implicit Information'.

[23] Nida, *Toward a Science of Translating: With Special Reference to Principles and Procedures Involved in Bible Translating* (Leiden: Brill, 1964), 159.

[24] Ibid.

[25] Ibid.

[26] Ibid., 160.

[27] See Nida and Taber, *The Theory and Practice of Translation* (Leiden: Brill, 1969); Nida and de Ward, *From One Language to Another: Functional Equivalence in Bible Translation* (Nashville: Nelson, 1986).

[28] Beekman and Callow, *Translating the Word of God* (Grand Rapids: Zondervan, 1974); Larson, *Meaning-Based Translation: A Guide to Cross-language Equivalence* (Lanham, MD: University Press of America, 1984). For a discussion of the various translation theories and styles that emerged in the sixties, see chapter 18 of F. F. Bruce, *The English Bible: A History of Translations from the Earliest English*

The ideal would be for a translated text to provide maximal metarepresentation of both source-language structure and authorial meaning. Peter Newmark outlined the diverse values both kinds of translation, which he characterized as 'semantic' versus 'communicative', but he also lists their mutual incompatibilities.[29] It is widely agreed, in fact, that a translated text cannot represent both equally well, especially if the ethnolinguistic distance is great, so there has been a tension since ancient times between translating in accord with *mens auctoris* or in accord with *venustas sermonis*. Formal translations commonly make adjustments to match target-language grammar and lexicon, while meaning-based translations retain many formal similarities, especially at the sentence and paragraph level. The result is that no translated texts have maximal preservation of either the source-language form or the author's meaning but are a compromise between the two, differing only in the percentage of each.[30] The ideal could be achieved, however, if translators were to produce a parallel translation, in which one column maximized preservation of form, *metaphrasis,* while the second maximized recovery of authorial meaning, *paraphrasis*. Since the two would be translated together and published together, there would be no need to compromise either one.

7.6. Ernst-August Gutt's theory of direct translation

Carston gives the following definition of interpretive resemblance with respect to reported speech and paraphrase:

> Two representations resemble one another interpretively in a context if and only if they share analytic and contextual implications in that context. Like all resemblances, interpretive resemblance is a matter of degree.[31]

This means that two utterances have high interpretive resemblance if their interpretation in the same context leads to the same explicatures and the same implicatures.

Although the concept of interpretive resemblance was developed to describe a kind of reported speech, Ernst-August Gutt applied it to translation, distinguishing **direct translation** from **indirect translation** on analogy with direct and indirect quotations.[32] Direct translation differs from literal translation in that it seeks to produce explicit counterparts, not to the forms of the source-language text, but to its **communicative clues**. These clues are elements of

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Versions to the New English Bible (revised edn.; London: Lutterworth Press, 1970). Bruce discusses the earlier practices as well, noting that Tyndale's style in the OT was 'free, bold and idiomatic' (p. 42).

[29] See Newmark, *About Translation* (Clevedon: Multilingual Matters, 1991), chap. 1.

[30] Even the most literal modern translations have some paraphrasis. In 1 Sam 25:22, 34; 1 Kgs 14:10; 16:11; 21:21; 2 Kgs 9:8, for example, one finds a disdainful term for men, *mashtîn bqîr*, 'wall pisser,' rendered in the Authorized King James Version as 'him that pisseth against the wall'. The ESV and NASB paraphrase this as *male* rather than translating the lexical meaning of each word.

[31] Carston, *Thoughts and Utterances*, 158.

[32] Gutt, *Translation and Relevance*, chaps. 6–7.

structure, morphology, or phonology 'that guide the audience to the interpretation intended by the communicator'.[33] The method employed is for the translator to identify the **communicative clues** in the source-language text which facilitated the inference of explicatures and implicatures in the original context, then produce a target-language text whose clues have the same effect in prompting the same explicatures and the same implicatures in the original context, with no additional clues added.[34] This is then a 'direct translation', and all others are 'indirect translations', on analogy with indirect quotations.[35] Ernst-August Gutt explains that this 'would lead to the original interpretation—if processed using the original context'.[36] By original interpretation Gutt means the hearer will process the verbal stimulus in the same way, considering the same range of senses and contextual assumptions in the same order of accessibility, and arriving at the same set of hypotheses that provide optimal relevance. In the case of creative metaphors and the like, the hearer will arrive at the same set of weak implicatures. He calls resemblance of this kind **interpretive resemblance**, and it is the goal of a direct translation:

> If processed in the original context, a direct translation purports to allow the recovery of the originally intended interpretation interlingually, just as direct quotations purport to do intralingually.[37]

Thus the goal of a direct translation is to produce a target-language verbal stimulus that has communicative clues corresponding to those of the source-language stimulus such that if processed in the original context, it leads readers to infer the the same explicatures and the same implicatures as the original readers. So in later works Gutt calls refers to this as a 'stimulus-oriented mode' of translation and contrasts it with 'interpretation-oriented mode', where the first communicates 'what was said', and the second 'what was meant'.[38] The interpretation-oriented mode is similar to dynamic equivalence, but the stimulus-oriented mode is different from most formal translations in that it seeks to encode into the target text communicative clues that stimulate the same effects as did the communicative clues that were encoded in the source text, without regard to their linguistic form. It resembles a gloss translation, if one takes 'gloss' to cover all kinds of communicative clues. And as Nida said, it is suitable for a reader who is prepared to 'to identify himself as fully as possible with a person in the source-language context, and to understand as much as he can of the customs, manner of thought, and means of expression.'[39] And this is what Bible scholars do.

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[33] Ibid., 134.

[34] Ibid., chaps. 6–7.

[35] Ibid., 136.

[36] Gutt, 'Cognitive Core', 36.

[37] Gutt, *Translation and Relevance*, 171.

[38] Gutt, 'Cognitive Core', 34.

[39] Nida, *Science of Translating*, 159.

This is clearly an ideal outcome that can be pursued and approximated, but it faces a number of challenges that do not face direct quotation or that do not face translation styles that are more interpretation-oriented. One is the lack of semantic and pragmatic isomorphism between languages, which results in a lack of one-to-one correspondence between the clues available in the source and target languages. A second obstacle is presented by differences in the conceptual systems, resulting in a lack of one-to-one correspondence in the source and target languages between their lexical concepts, their schemata, and their co-activation patterns. Naïve readers generally assume that the lexemes in the target-language text signify their usual lexical concepts in that language, so it is their own concepts that are commonly evoked by their lexemes, rather than the concepts of the original-language conceptual system. Naïve translators assume there is enough correspondence among lexical concepts in different languages to allow a gloss translation to be an equivalent stimulus to the source text, and bilingual dictionaries give that impression, but as George Steiner notes, 'No grammar or dictionary is of very much use to the translator: only context, in the fullest linguistic-cultural sense, certifies meaning.'[40] Furthermore, the target language audience might lack any concept at all that corresponds to some of the source-language lexical concepts, such as LEVITE, REDEEMER, COVENANT, or even PRIEST, and no clues will evoke a concept that the audience do not yet have, but new concepts can be explained separately.

The third challenge is ascertaining whether a translation is actually direct or not. To be direct it must have clues that stimulate the same explicatures and the same implicatures in the original context that the original text did for the original audience. For one thing, the target-language lexemes will be polysemous in different ways from the source language, each having a different set of lexical concepts as their senses, and this will cause the reader's comprehension processes to test a different set of hypotheses from those of the original language, leading to a possibly different interpretation of the translated text. A similar problem is posed by the polysemy of the original language. As mentioned in §5.3, the Hebrew word *kānāph* in Ruth 3:9 has been variously translated into English as *wings*, *covering*, *cloak*, *skirt*, *edge*, *corner*, and *marriage*, all of which are senses of the word. Someone translating into English must choose one of them and will thereby alter the interpretations that a reader might consider. Furthermore, even if a lexeme in the target language were to have the very same set of lexical concepts as the lexeme in the source language, and the concepts themselves were exactly the same in content, there would still be differences in their co-activation patterns and accessibility, and this would lead to differences in the hypotheses a reader selects and tests and the order in which they are tested. Since the reader accepts the first interpretation that provides relevance, differences in the pool of activated concepts and differences in their degrees of

[40] Steiner, *After Babel: Aspects of Language and Translation* (Oxford and New York: Oxford University Press, 1998), 376.

accessibility can lead to the comprehension process to test lexical concepts in a different order, leading to a different interpretation.

The same factors can lead to a different set of contextual assumptions being tested in a different order, leading to a different one being accepted as relevant, and hence to a different interpretation. Even if the modern readers believe or know about the assumptions of the original authorial audience, such as the indecency of a woman not covering her hair and the celebration of each new moon with trumpets and feasts, these assumptions may lack chronicity and frequency in their culture, so their accessibility will be lower than it was for the authorial audience. This low accessibility will inhibit consideration of the assumptions during comprehension and allow the mind to activate more accessible assumptions, leading to a possibly different interpretation. A more difficult problem is that the cognitive environment of the readers can never be the same as that of the authorial audience, so the text will not prompt them towards the same context. The context available to them may have very different assumptions, so they test different contextual assumptions to begin with. If the context is given to the readers explicitly, in footnotes or by a teacher, then it becomes part of the verbal stimulus and is processed by the readers into explicatures rather than implicatures, without testing them as potential contextual assumptions. In that sense it makes little difference to the reader's processing whether the assumption is encoded in the text or in the footnote. That may communicate the original meaning, but it falls short of being an interpretive resemblance of the same explicatures and the same implicatures as in the original interpretation.

According to Ernst-August Gutt, these differences between the source-language concepts and context and the target-language concepts and context need not deter one from making a direct translation:

> Since in direct translation it is the audience's responsibility to make up for such differences, the translator need not be concerned with them.[41]

This in fact is what is done in literary translations intended for scholarly study, including study Bibles with conservatively translated texts. It is expected that astute students will learn and use the source-language lexical concepts rather than those of the target language and use assumptions of the original context, in the original order of accessibility, rather than their own assumptions. This requires serious intentionality, as Sperber and Wilson note:

> A speaker who intends an utterance to be interpreted in a particular way must also expect the hearer to be able to supply a context which allows that interpretation to be recovered. A mismatch between the context envisaged by the speaker and the one actually used by the hearer may result in a misunderstanding.[42]

A further challenge is assessing the quality of a translation that aims to be direct. Ronald Sim discusses this:

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[41] Gutt, *Translation and Relevance*, 175.

[42] Sperber and Wilson, *Relevance*, 16.

> A translation is of high quality to the extent that its interpretive resemblance to the interpretation of the original is identical.
>
> Furthermore, the interpretation of the source passage is what must be conveyed in its translation, so that a comparison of the interpretations of the two texts gives us an empirical means of assessing the quality of a translation. This defines the nature of the resemblance between a translation and its source text, and the notion of quality in translation.[43]

So a translation cannot be evaluated as direct simply because it appears to provide an equivalent stimulus; it needs to be tested to find out whether it stimulates the original explicatures and implicatures in the original context. The problem then is finding readers who can interpret it in accord with its original context.

As for translations that are not direct, Gutt classifies them all as 'indirect'. In what follows I propose benchmarks for characterizing various degrees of indirectness, or to put it another way, benchmarks along the cline of explication towards interpretation-oriented translation, in which the authorial meaning is made as explicit as necessary to be comprehended without a paratext.

7.7. Translated text: towards a classification of degrees of explication

Most Bible translations fall in a range of explication that neither adheres slavishly to the semantic or linguistic features of the source text nor makes explicit all of the authorial meaning that the readers cannot infer on their own. In other words, few translations resemble direct quotations. The problem is that translators have lacked benchmarks within this range of explication which they could use to identify and discuss different policies on explication so they could agree on the most appropriate one for their purposes and consistently follow it.[44] Adopting a sociocognitive framework, however, allows us to make a principled classification of styles and not simply name the extremes of a continuum. By analyzing actual translated texts from this sociocognitive framework, it is possible to identify policies which Bible translators have tacitly followed, classify their approaches, and evaluate the advantages of each approach. I would propose the following benchmarks, all of which can be distinguished by translational criteria:

Formal resemblance	The translated text resembles the source text in wording.
Stimulus resemblance	It encodes the semantic content or communicative clues that were encoded in the source text but does not encode other explicit and implicit content.

[43] Sim, 'Modeling the Translation Task', 120.

[44] Actually, there are several different parameters along which translations can vary, but this is not the place to discuss them all. See Brown and Hoyle, 'A Guide to Language Projects', (High Wycombe: SIL International, 2005). for a listing and description.

Stimulus resemblance plus limited explication	It encodes as above, but in addition encodes some of the explicit content that was not encoded in the original text, either to ensure grammaticality or to help readers infer vital enrichments.
Explicature resemblance	It encodes whatever is necessary to ensure communication of the same explicatures that the source text communicated.
Explicature plus	It communicates the same explicatures, as above, plus encodes some implicit content.
Meaning resemblance (or interpretation-oriented)	It encodes whatever is necessary to ensure communication of the same total meaning, both explicit and implicit, that the source text communicated in its context.

All of these options are described in the following subsections.

It might be noted that there are additional parameters that distinguish translations as well, such as reading level, meaning the sophistication of the vocabulary and the complexity of the structure, [45] as well as naturalness and clarity,[46] skopos, and theoretical framework,[47] but these are another topic.

7.7.1. Formal resemblance

Uses similar encodings

People who are fully bilingual use two languages idiomatically at a subconscious level, but when people untrained in language think consciously about the translation process, they naïvely assume it consists of substituting one word for another, otherwise known as 'glossing'. This can lead them to expect that a translated text will consist of word-for-word glosses of the words (or morphemes) of the original language, even word-for-word glosses of idiomatic phrases. This is why some people are suspicious of 'dynamic' translations of the Bible. De Vries describes glossing as an example of lexico-semantic interference from the source language to

[45] Reading levels are often characterized, from simple to sophisticated, as 'easy-language', 'common-language', 'standard', and 'literary'.

[46] For more on these topics, see Larson, *Meaning-Based Translation*. For a survey of translation theories, see Mojola, 'Scripture Translation in the Era of Translation Studies', in Timothy Wilt (ed.), *Bible Translation: Frames of Reference* (Manchester: St. Jerome Publishing, 2003), 1–25. For a discussion of contemporary situational factors that affect the style of translation, see Wilt, 'Translation and Communication', in Timothy Wilt (ed.), *Bible Translation: Frames of Reference* (Manchester: St. Jerome Publishing, 2003), 27–80. See also de Vries, 'Forms and Functions'.

[47] In *Contexts of Translation*, chap. 7, Nida distinguishes three principal theoretical frameworks that determine the nature of theories of translation and their practice: philology, sociolinguistics, and semiotics.

the receptor language. He notes that this interference can come from source-language grammatical patterns, literary and rhetorical patterns, and pragmatic patterns.[48]

It seems to me, however, that we need to distinguish two different kinds of glossing. One is the matching of lexical categories, meaning the substitution of a noun for a noun, a verb for a verb, an adjective for an adjective, a participle for a participle, etc. Some literal translators do this even when the receptor language does not use nouns or participles in particular constructions or where it uses stative verbs rather than adjectives! We can call this kind of glossing **part-of-speech resemblance**. The other kind of glossing is the practice of substituting one particular receptor-language word for a given source-language word wherever it occurs, insofar as possible. This is commonly called **concordance**. Concordance commonly leads to a receptor word being used in contexts where it fails to evoke the concept which the source-language word evoked in that context, because it has a different pattern of polysemy.

As an example of part-of-speech resemblance, consider Psalm 34:4. The Hebrew has ומכל־מגורותי הצילני, where מגורות *mᵉghûrôth* is a plural noun denoting objects or events which are feared (cf. Prov 10:24; Isa 66:4). So the meaning of the Hebrew clause above is that God 'delivered me from everything which I feared'. But to achieve part-of-speech resemblance, the KJV English translators needed a single plural noun to substitute for מגורות. As it happens, there is no English noun that denotes objects of dread, so the translators used the noun *fears*, even though the word *fears* denotes emotions rather than objects or events. As a result, the translators wrote 'delivered me from all my fears'. This phrase has been followed by almost every English translation, in spite of the change of meaning that results.

To achieve concordance, translators usually pick the most concrete meaning of a word, find a word in the receptor language that shares that meaning, and then substitute that word for the original one in as many passages as possible. For example, the Hebrew word *lēv* (לֵב/ לֵבָב) occurs over 600 times in the Hebrew Bible, with a variety of meanings. To achieve concordance, Greek translators of the LXX and English translators of concordant English translations picked the most concrete meaning of the term, which is καρδία / 'heart', an organ that pumps blood. They then used this to gloss לֵב/ לֵבָב in most of its instances, (e.g. 'heart of the sea', Exod 15:8). This was done in spite of the fact that few or none of the 600 instances of the word in the Hebrew Bible specifically designate the physical organ which pumps blood![49]

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[48] Vries, 'Forms and Functions'.

[49] It refers to the chest in 1 Sam 25:37, 2 Kings 9:24, Jer 4:19, Exod 28:29, but never clearly to the physical heart. On the other hand the Hebrews would have needed a word to use to refer to the physical heart of butchered animals, and in the absence of any other candidate, this was most likely the one they used.

Comments

Glossing assumes a semantic isomorphism between the source language and target language, meaning a uniform one-to-one semantic and formal correspondence between lexemes. But this does not exist, because languages differ with regard to their lexical semantics. What one finds is that lexemes in one language which have a semantic resemblance to lexemes of another language may lack a formal resemblance, and lexemes which have a formal resemblance in some way may be deficient in semantic resemblance. So one cannot make a translation that has both formal and semantic resemblance to its source-language text.

On the other hand, a formal translation does have value as a reference text, especially in academic study Bibles, because it gives sophisticated readers access to many of the forms and functions of the source-language text without requiring them to read the text in the source languages. This enables them to undertake word studies and literary analyses that approximate ones they could undertake in the source language. Concordance is especially useful in the translation of key terms such as *Kingdom of God*, because it allows the student to examine the usage of this term in different passages and thereby develop a full concept of the Kingdom.

A formal translation, on the other hand, does not reveal all of the senses of the original words nor the concepts they evoked. On the contrary, it uses receptor-language words in unfamiliar contexts to signify senses they do not ordinarily have. In addition, a formal translation does not help the readers to recover the original explicatures and implicatures of the author's meaning. To recover these the readers need access to extensive lexical and contextual information. The NET Bible[50] is a formal translation, but it provides more than 60,000 notes for its readers, many of them semantic or contextual, and the notes are still expanding.

7.7.2. Stimulus resemblance

Encodes only what was originally encoded, but the form of the encodings may vary

Stimulus resemblance is achieved if the information which the receptor audience decodes from the translated text closely resembles the information that was explicitly encoded in the original text, without encoding additional explicit and implicit content. In other words, the source text and translated text encode the same semantic features (or communicative clues), insofar as this is possible. Translators produce stimulus resemblance by decoding the semantic and procedural of the original text and recoding the equivalent information into the translated text.

Note that translations of the encoded semantics can be idiomatic rather than formally correspondent. This can be seen in three translations of Acts 4:33a below, all of which encode equivalent semantic content:

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[50] Biblical Studies Foundation, *The NET Bible: New English Translation Study Bible* (Spokane, WA: Biblical Studies Press L.L.C., 2005). The text and notes of this version are continually revised and updated. The most current version is online at http://www.bible.org/netbible/index.htm.

GNT: καὶ δυνάμει μεγάλῃ ἀπεδίδουν τὸ μαρτύριον οἱ ἀπόστολοι ...

RSV: And with great power the apostles gave their testimony …

NLT: The apostles testified powerfully …

Message: The apostles gave powerful witness …

The RSV has formal resemblance to the Greek wording in this verse, while the NLT and the Message use different syntactic structures to produce better English style. The encoded semantics, however, are the same in all three renderings. Few translations, however, limit themselves to recoding, mostly just interlinear translations and back translations. Other kinds of translation typically encode some of the enrichments as well (as is shown in the next section).

It should be noted that there are limits on the extent to which it is possible simply to recode conceptual content cross-culturally into another language, because the receptor audience will lack some of the concepts of the original interlocutors or have different versions of them. The biblical authors evoked many concepts from the conceptual world of their audience, concepts which are unfamiliar to many present-day audiences. These range from unfamiliar objects, such as myrrh and phylacteries, to unfamiliar qualities, such as sinfulness and holiness. Consider, for example, the **key terms** used by Matthew at 5:20 below:

GNT: Λέγω γὰρ ὑμῖν ὅτι ἐὰν μὴ περισσεύσῃ ὑμῶν ἡ δικαιοσύνη πλεῖον τῶν γραμματέων καὶ Φαρισαίων, οὐ μὴ εἰσέλθητε εἰς τὴν βασιλείαν τῶν οὐρανῶν.

RSV: For I tell you, unless your righteousness exceeds that of the scribes and Pharisees, you will never enter the kingdom of heaven.

This verse evokes a number of concepts that were part of the cognitive environment of the original audience but which are unavailable in the cognitive environment of most contemporary audiences (PHARISEE, KINGDOM OF HEAVEN) or differ in meaning from similar concepts the audience might have (SCRIBE, RIGHTEOUSNESS).

The translation cannot evoke a concept that the audience lacks, so there is a need to develop these concepts in the minds of the audience. I submit then that translators face two distinct tasks: help readers develop a particular concept in their minds, then evoke that concept in the translated text. Translators can develop the basic features of a new concept in the **paratext**, meaning the glossary, footnotes, introductions, and mini-articles that supplement the translated text in the same publication. They can then evoke those concepts in the translated text. For example, translators among native South American peoples might introduce the word *kamelo* or the equivalent of *Arabian llama* in the glossary as a name for the CAMEL concept, describe its essential features, and provide an illustration, then use it in the text. Some concepts, however, can be developed within the text. The NLT, for example, often explicates the word *repent* within the text itself, as in Matthew 3:2 below:

GNT: μετανοεῖτε· ἤγγικεν γὰρ ἡ βασιλεία τῶν οὐρανῶν.

NIV: Repent, for the kingdom of heaven is near.

NLT: Repent *of your sins and turn to God,* for the Kingdom of Heaven is near.

Note that NLT uses more words than the NIV, which is more formal, but the words simply recode the semantic content of μετανοεῖτε.

7.7.3. Stimulus resemblance plus limited explication

Recoded semantic content + encoding of minimal enriched content

Few (if any) translations can limit themselves to encoding the original semantic content alone. More commonly they encode both the semantic content that was encoded in the source text and a minimal amount of the enriched explicit content, notably that which it is needed to ensure the grammaticality of the translated text and to avoid nonsense. Examples are found in both formal translations like the NASB and in idiomatic translations like the Message. Some of the formal translations use italics when they encode these enrichments, as shown below:

GNT: τί πρὸς ἡμᾶς; σὺ ὄψῃ.

KJV: What *is that* to us? see thou *to that*. (Matthew 27:4b)

GNT: μήτι ἡ πηγὴ ἐκ τῆς αὐτῆς ὀπῆς βρύει τὸ γλυκὺ καὶ τὸ πικρόν;

NASB: Does a fountain send out from the same opening *both* fresh and bitter *water*? (James 3:11)

If the readers are to recover the explicatures and implicatures of a translation like this, then they will still need access to paratextual notes that provide implicated premises they would not otherwise utilize. They could also benefit from a good glossary or Bible dictionary that explains the concepts that were evoked for the original audience. All contemporary readers of ancient texts need such resources, whether the texts are biblical or not.

The best example of a translation at this level of resemblance is the NIV Learning Bible. It provides a recoded text with limited explications, and then supplies a paratext with extensive notes explaining concepts and contextual assumptions.[51]

7.7.4. Explicature resemblance

Encodes optimal explicit content

A more communicative translation is produced when the translators encode as much of the original explicit content as is required to enable the audience to reconstruct the original explicatures, even if they do not encode any implicit content (implicatures). The translators need first of all to reconstruct the explicatures that the author would have expected the original text to communicate to his audience in their context. They do this by using the principle of relevance to figure out how the original audience would have resolved vague or polysemous lexemes and structures, filled in the gaps in semantic content (such as ellipses and implied

[51] American Bible Society, *The Learning Bible*. The notes are described in §7.3.

participants), assigned participant roles to constituents, identified referents, and recognized the illocutionary intent. The translators can then try to produce a translated text which enables their receptor audience to infer an equivalent explicature. As an example consider Acts 4:33b:

GNT: χάρις τε μεγάλη ἦν ἐπὶ πάντας αὐτούς

RSV: and great grace was upon them all.

NLT: and God's great blessing was upon them all.

The NLT translators assumed that some readers are unable to infer with confidence that God is the implicit source of the grace, so they encoded this part of the explicature.[52] RSV, translating closer to a recoding level, leaves this to be inferred. Both texts could communicate the same explicature, but people unfamiliar with the Bible might be unable to construct the intended explicature for the RSV text.

The reconstruction of an explicature requires identification of its referents, but readers can find this difficult in formal translations that fail to communicate vital clues. In 2 Timothy 1:18, the referents of four referential expressions were clear in the source text but are unclear in many English translations. The CEV translators have clarified them for their readers:

GNT: δῴη αὐτῷ ὁ κύριος εὑρεῖν ἔλεος παρὰ κυρίου ἐν ἐκείνῃ τῇ ἡμέρᾳ.

NIV: May the Lord grant that he will find mercy from the Lord on that day!

CEV: I pray that the Lord Jesus will ask God to show mercy to Onesiphorus on the day of judgment.

In this case the ambiguous uses of *Lord* (which were differentiated in the Greek by use of the article) have been clarified in the CEV. In the second instance, where κύριος is used as a divine name, the CEV has used a common euphemism for the name. Where differences between Greek and English participant tracking leave the antecedent of the pronoun unclear, the CEV has supplied the name of the referent (Onesiphorus). The CEV has clarified the referent of *that day* as well, since this phrase is not commonly used in English to refer to the day of judgement.

In reconstructing an explicature, the readers must also resolve temporal ambiguities. In cultures where people believe there are more states of existence than being alive or dead, the audience may infer the wrong conclusion from a formal or recoded translation of Luke 7:15a, namely that the boy who died became a zombie, one of the 'living-dead':

GNT: καὶ ἀνεκάθισεν ὁ νεκρὸς καὶ ἤρξατο λαλεῖν
ESV: And the dead man sat up, and began to speak.

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[52] Although 'God' is not explicitly encoded in the text, 'grace/blessing' is explicitly encoded, and the concept of GRACE/BLESSING includes a proposition that it is something God does for someone. So the reference to God was underdetermined by the code but is resolved in constructing the explicature. The NLT does similarly by adding *God's* in Matthew 3:7: 'Who warned you to flee God's coming wrath?'

We presume Luke intended his audience to infer a temporal setting for the boy's state of death that ended with the intervention of Jesus. If the translators follow a policy of explicature resemblance, then they can indicate that the boy is no longer dead:

> The boy *who had been* dead sat up and began to speak.

If translators find that encoding this enrichment fails to enable the audience to infer that the boy is now alive, then they can state this explicitly in a footnote or in a section heading. An example of a section heading is 'Jesus raises a widow's dead son back to life'.

Translations which provide explicature resemblance ensure that their audience infers all of the explicatures, but they do not ensure that the audience can infer the implicatures. If the audience lacks knowledge of essential implicated premises, then they will fail to infer the intended conclusions and thereby arrive at unintended meanings. The solution, of course, is for the translators or others to provide the implicated premises in the notes, along with explanations of new or different concepts. No major English translations have done this to date, in part because the concept of implicated premises has not entered the minds of the editors, but the NET Bible and the Learning Bible do provide many contextual assumptions in the paratext. The American Bible Society's massive Learning Bible provides five categories of notes: geography; history and culture; people and nations; ideas and concepts; and objects, plants and animals. But it requires considerable processing effort for the reader to read all of these notes, searching for the contextual premises needed to understand the author's meaning. It would help the readers considerably if the notes highlighted implicated premises and if they stated some of the implicated conclusions, at least those which elude readers who are just beginning the hermeneutical spiral.

7.7.5. Explicature resemblance with additional explication

Encodes optimal explicit content + limited implicit content

The translation can achieve greater optimal relevance for its audience if the translators seek to communicate the explicatures but also encode a minimum of implicit content that is needed by the audience to infer implicated conclusions essential to the discourse. The NLT encodes implicit content as textual amplifications more than most other English translations, but it nevertheless does this quite sparingly. Examples are the weak implicatures encoded by the NLT in Matthew 3:10a and 3:11, which are shown below in comparison with the NET (citing the words of John the Baptist with regard to the Messiah):

> NET: I am not worthy to carry his sandals.
>
> > NET note: This was considered one of the least worthy tasks of a slave …
>
> NLT: I'm not worthy even *to be his slave and* carry his sandals.

Here the NET Bible provides the implicated contextual assumption in a footnote and leaves it to the reader to derive the conclusion. The NLT, on the other hand, explicates the implicated

conclusion in the text. This reduces the processing effort required for readers to recover the implicature. Most English Bible translations, however, do not encode implicatures in the text, and few explicate them in the notes, leaving the readers to contextualize the text as they will.

Compare now the NET and NLT translations of Luke 10:13, shown below, with underlining added to highlight explications of implicit information:

> NET: Woe to you, Chorazin! Woe to you, Bethsaida! For if the miracles done in you had been done in Tyre and Sidon, they would have repented long ago, sitting in sackcloth and ashes.
>
> > [NET note: *Tyre and Sidon* are two other notorious OT cities (Isa 23; Jer 25:22; 47:4). The remark is a severe rebuke, in effect: 'Even the sinners of the old era would have responded to the proclamation of the kingdom, unlike you!']
>
> NLT: What sorrow awaits you, Korazin and Bethsaida! For if the miracles I did in you had been done in wicked Tyre and Sidon, their people would have repented of their sins long ago, clothing themselves in burlap and throwing ashes on their heads to show their remorse.

The NLT encodes the explicit information that (1) Jesus was the one who had done miracles in Chorazin and Bethsaida (cf. Luke 9:10-17; Mark 8:22-26), and the implicit information that (2) the people of Tyre and Sidon were considered to be wicked, and (3) that people sometimes dressed in burlap and threw ashes on their heads in order to show remorse (i.e. not because they were crazy). By encoding this content, the NLT enables the readers to infer the implied conclusion. This conclusion is the main point of Jesus' argument, namely that the people in the wicked pagan cities of Tyre and Sidon would have repented and believed in Jesus when they heard his message and saw his miracles, so the people of Korazin and Bethsaida are more culpable than they are for rejecting Jesus. The NET uses a formal translation but supplies a footnote which explicates a contextual assumption (no. 2 above), explicates the speech act, and explicates an implicit conclusion.

Recall Luke 7:15a from the previous section ('And the dead man sat up, and began to speak'). If the audience continued to misunderstand it, even after clues had been provided, then in an explicature-plus translation the translators could encode the implicated conclusion as a textual amplification, marked below in italics:

> The dead boy *came back to life,* sat up, and began to speak.

This approach to translation complies with the principle of relevance by providing the audience with increased cognitive effects with a reduction of processing effort.

Explicature-plus resemblance seems to be the highest level of explication that is acceptable for most kinds of literary translation. The only major English Bible translation that undertakes it is the New Living Translation (NLT), and then quite reservedly. Bible storybooks, on the

other hand, explicate implicatures quite routinely, as do oral Bible stories and Scripture-based movies.

7.7.6. Meaning resemblance

Encodes optimal explicit content + optimal implicit content

The opposite extreme is to encode all of the authorial meaning that the reader cannot infer. This was called 'interpretation-oriented translation' in the introduction to this section. The translators encode as much of the original meaning content as is needed to enable their audience to readily understand as much of the author's meaning as possible without paratextual helps.

The *Suggested Source Translation*[53] takes this approach, as may be seen in Mark 1:40–45 below. (All italics are original and signify textual amplifications.)

> [40]*One day* a leper came to Jesus. He knelt down in front of Jesus and then he pleaded with him saying, "If you are willing to cure me, *please do so, since I know* you are able to do it!" [41]Jesus felt very sorry for him. *So he ignored the religious laws about coming close to lepers.* He reached out his hand and touched the leper. Then he said to him, "Since I am willing *to heal you*, I heal you *now*!" [42]Immediately the man was healed! He was no longer a leper! [43]*In order that he would do the things necessary so that people would associate with him again,* Jesus spoke sternly to him before he sent him away. [44]What Jesus said was, "Go to the priest *in Jerusalem* and show yourself to him *in order that he may examine you and verify that you are healed.* Make sure that you do not tell others *about what happened*! Take to him what Moses commanded *that a person who has been healed should offer, in order that he* may offer it *as a sacrifice to God.* Then, *after the priest tells the local people, they* will know *that you have been healed*." [45]The man went *and saw the priest. But then* he began to talk to many people about *how Jesus had healed him*. As a result, Jesus was no longer able to enter any town publicly *because the crowds would surround him.* Instead, he remained outside *the towns* in places *where no people lived*. But people kept coming to him from all over that region.

This level of explication seems suitable for Bible storybooks and for paraphrases produced by preachers and expositors to communicate the full meaning of a passage.

7.7.7. Examples from Luke of translation styles

We can learn something about translation styles from the ways in which Luke narrates historical speech events. We find he sometimes clarifies explicatures and explicates contextual

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[53] Deibler, *Suggested Source Translation: The New Testament* (Waxhaw, NC: Effectual Bible Translation Guides, 2005).

premises so his Greek readers can comprehend a person speaking Aramaic or Hebrew in a Jewish context.

Clarification of explicatures

Luke explicates contextual information needed to identify the referents of explicatures, as shown below with italics (Luke 7:24):

> GNT: Ἀπελθόντων δὲ τῶν ἀγγέλων Ἰωάννου ἤρξατο λέγειν πρὸς τοὺς ὄχλους περὶ Ἰωάννου· τί ἐξήλθατε εἰς τὴν ἔρημον θεάσασθαι; κάλαμον ὑπὸ ἀνέμου σαλευόμενον;
>
> ESV: When the messengers of John had gone, he began to speak to the crowds *concerning John*: "What did you go out into the wilderness to behold? A reed shaken by the wind?"

Luke ensures that his readers understand that Jesus is talking about John the Baptist. This enables them to recover the explicit content that John is the intended referent of 'what they went into the wilderness to see' and is the one described, hypothetically and metaphorically, as 'a reed shaken by the wind' (Luke 14:7):

> GNT: Ἔλεγεν δὲ πρὸς τοὺς κεκλημένους παραβολήν, ἐπέχων πῶς τὰς πρωτοκλισίας ἐξελέγοντο, λέγων πρὸς αὐτούς·
>
> ESV: Now he told a parable to those who were invited, *when he marked how they chose the places of honour*, saying to them,

Luke provides a context for Jesus' remark that enables his readers to understand that the speech act is a criticism as well as an instruction.

Luke also provides information to help his readers comprehend insincere propositional attitudes (Luke 20:20–22):

> GNT: Καὶ παρατηρήσαντες ἀπέστειλαν ἐγκαθέτους ὑποκρινομένους ἑαυτοὺς δικαίους εἶναι, ἵνα ἐπιλάβωνται αὐτοῦ λόγου, ὥστε παραδοῦναι αὐτὸν τῇ ἀρχῇ καὶ τῇ ἐξουσίᾳ τοῦ ἡγεμόνος. καὶ ἐπηρώτησαν αὐτὸν λέγοντες· διδάσκαλε, οἴδαμεν ὅτι ὀρθῶς λέγεις καὶ διδάσκεις καὶ οὐ λαμβάνεις πρόσωπον, ἀλλ' ἐπ' ἀληθείας τὴν ὁδὸν τοῦ θεοῦ διδάσκεις· ἔξεστιν ἡμᾶς Καίσαρι φόρον δοῦναι ἢ οὔ;
>
> ESV: So they watched him, and *sent spies, who pretended to be sincere, that they might take hold of what he said, so as to deliver him up to the authority and jurisdiction of the governor*. They asked him, "Teacher, we know that you speak and teach rightly, and show no partiality, but truly teach the way of God. Is it lawful for us to give tribute to Caesar, or not?"

Luke does not risk leaving it to his readers to infer the insincerity and trickery of the questioners. Instead he makes it clear that they are insincere and are laying a verbal trap for Jesus.

When an addressee hears an utterance, she makes some inferences about the state of the speaker, his context, and his agenda. In conversation, this is aided by noting clues in the speaker's tone of voice and facial expressions. In reading an utterance, however, the reader can

make the wrong inferences about the speaker's attitudes and intentions and draw the wrong conclusions. Consider, for example, the statement below from Luke 5:8:

> GNT: ἰδὼν δὲ Σίμων Πέτρος προσέπεσεν τοῖς γόνασιν Ἰησοῦ λέγων· ἔξελθε ἀπ᾽ ἐμοῦ, ὅτι ἀνὴρ ἁμαρτωλός εἰμι, κύριε.
> ESV: But when Simon Peter saw it, he fell down at Jesus' knees, saying, "Depart from me, for I am a sinful man, O Lord."

If Luke had just reported Peter's words, Luke's readers might have had trouble identifying Peter's first speech act. Was Peter rejecting Jesus? Was he warning Jesus that he was a dangerous criminal? Was he seeking safety from Jesus out of fear for himself? Was he making a polite request? Was he expressing his awe and reverence for Jesus? Peter's gestural act of prostration requires interpretation as well, since it could signify supplication, submission, homage, or reverence. Luke, however, provides additional information about Peter's cognitive environment, namely his emotional state, that helps the audience to infer Peter's illocutionary intent (Luke 5:9):

> GNT: θάμβος γὰρ περιέσχεν αὐτὸν καὶ πάντας τοὺς σὺν αὐτῷ ἐπὶ τῇ ἄγρᾳ τῶν ἰχθύων ὧν συνέλαβον,
> ESV: *For he was astonished,* and all that were with him, at the catch of fish which they had taken.

From this the readers could infer that (1) Peter's second speech act was an expression (of his own unworthiness); (2) his gesture of kneeling was an expression (of reverence for Jesus); and (3) his first speech act was a polite request that implicates a further expression of reverence for Jesus. The contextual premise for that implication is that a holy person should not associate with an unholy person.

It might be noted that for the sake of modern readers, the translators of the New Living Translation have explicated the illocutionary point of the first speech act as well as the contextual assumption (Luke 5:8-9):

> GNT: ἰδὼν δὲ Σίμων Πέτρος προσέπεσεν τοῖς γόνασιν Ἰησοῦ λέγων· ἔξελθε ἀπ᾽ ἐμοῦ, ὅτι ἀνὴρ ἁμαρτωλός εἰμι, κύριε. θάμβος γὰρ περιέσχεν αὐτὸν καὶ πάντας τοὺς σὺν αὐτῷ ἐπὶ τῇ ἄγρᾳ τῶν ἰχθύων ὧν συνέλαβον,
> NLT: When Simon Peter realized what had happened, he fell to his knees before Jesus and said, "Oh, Lord, *please* leave me—I'm *too much of* a sinner *to be around you*." For he was awestruck by the size of their catch, as were the others with him.

Explication of contextual assumptions

Luke also explicates contextual assumptions that his Greek audience lacked, so they can derive some of the implicated conclusions. In the example below, Luke explicates contextual assumptions that were known to the original interlocutors but not to his audience (Luke 7:37):

> GNT: καὶ ἰδοὺ γυνὴ ἥτις ἦν ἐν τῇ πόλει ἁμαρτωλός, καὶ ἐπιγνοῦσα ὅτι κατάκειται ἐν τῇ οἰκίᾳ τοῦ Φαρισαίου, κομίσασα ἀλάβαστρον μύρου

> ESV: And behold, a woman of the city, *who was a sinner*, when she learned that he was at table in the Pharisee's house, brought an alabaster flask of ointment.

It was known to the Pharisees in this scene that the woman had a bad reputation. Luke provides this contextual assumption to his readers to help them comprehend the resulting conversation.

In most cases narrated speech events are embedded in a descriptive communication from the narrator to the readers, and the narrated speech events serve a role in this descriptive act. In the example below, Luke explicates an assumption that was evident to Jesus, but which might be unknown to the readers (Luke 5:18–20):

> And behold, men were bringing on a bed a man who was paralyzed, and they sought to bring him in and lay him before Jesus; but finding no way to bring him in, because of the crowd, they went up on the roof and let him down with his bed through the tiles into the midst before Jesus. And *when he saw their faith* he said, "Man, your sins are forgiven you."

The actions of the men were an ostensive request for healing, but Jesus also forgave the man's sins. Luke provides contextual information that enables the readers to infer the stimulus and basis on which Jesus offered forgiveness: ἰδὼν τὴν πίστιν αὐτῶν 'seeing their faith'. In this way Luke shows the relationship of the stimulus to the response. More importantly for Luke's thematic purposes, this enables his readers to infer an inductive generalization to the effect that Jesus grants forgiveness of sins to people who believe in him.[54] From this generalization (or by analogous reasoning) his readers could deduce that Jesus might forgive their sins if they believe in him.

In the following Luke provides a presupposition from the context of Jesus' audience that helps the reader to infer the main point of his parable (Luke 19:11):

> GNT: Ἀκουόντων δὲ αὐτῶν ταῦτα προσθεὶς εἶπεν παραβολὴν διὰ τὸ ἐγγὺς εἶναι Ἰερουσαλὴμ αὐτὸν καὶ δοκεῖν αὐτοὺς ὅτι παραχρῆμα μέλλει ἡ βασιλεία τοῦ θεοῦ ἀναφαίνεσθαι.
>
> ESV: As they heard these things, he proceeded to tell a parable, because he was near to Jerusalem, and *because they supposed that the kingdom of God was to appear immediately*.

Explication of implicated conclusions

In narrating some of Jesus' parables, Luke simply explicates the implicated conclusion, i.e. the main point (Luke 18:1):

> GNT: Ἔλεγεν δὲ παραβολὴν αὐτοῖς πρὸς τὸ δεῖν πάντοτε προσεύχεσθαι αὐτοὺς καὶ μὴ ἐγκακεῖν,

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[54] This inference is consistent with the concluding theme at the end of Luke, namely 'that repentance and forgiveness of sins should be preached in his name to all nations, beginning from Jerusalem' (Luke 24:47). For more on inductive generalizations, see Geeraerts, *Diachronic Prototype Semantics*, 69. and Dik, 'Inductive Generalizations in Semantic Change', in Paul J. Hopper (ed.), *Studies in Descriptive and Historical Linuigistics: a Festschrift for Winfred P. Lehmann* (Amsterdam: John Benjamins, 1977), 283–300.

> ESV: And he told them a parable, *to the effect that they ought always to pray and not lose heart.*

It is evident that in his narration of speech events, Luke clarifies and explicates content for the sake of communicating cross-culturally to his audience.

Conclusion

It can be seen that a naturalized biblical hermeneutic provides a conceptual framework that can enable commentators and other expositors to identify the conceptual and contextual information they need to supply to readers of the Bible, and it also provides a framework for classifying and discussing distinct approaches to translation.

7.8. Communicative annotated translations

As Ernst-August Gutt has noted, translation constitutes an interpretive use of language, as opposed to a descriptive use.[55] The role of the translators is to interpret the original communication to their audience. If they are successful, then they enable their audience to comprehend the author's meaning, which was communicated via the explicatures and implicatures he expected the original audience to infer. This is one approach to the third hermeneutical goal, namely communication of original biblical meaning to contemporary audiences, in spite of the conceptual distance between them and the authorial audience. It might be helpful therefore to introduce a qualified term, **communicative annotated translation**, to designate a macrogenre of communicative strategies designed to help **receptor** audiences to understand both the author's meaning and the way he communicated it by text and context. It could also prompt readers to infer some of the current significance of that meaning.

What distinguishes the this macrogenre from exposition is that it consists of a translated text and a paratext, with the translated text being primary. In other words, it is an **annotated translation**. Thus it differs from what Newmark calls a 'communicative translation', which is his term for dynamic translation,[56] because the target-language text by itself might not be dynamic at all, but together with the paratext it presents a communicative package. The translated text consists of an extended metalinguistic representation of the original text. This enables the reader to examine a metarepresentation of the verbal stimulus that the author used. A paratext, however, is also needed. A metalinguistic representation alone cannot communicate the author's explicatures, much less his implicatures, because the source text and source language evoked concepts and assumptions of the authorial audience. Many of these concepts and assumptions lack counterparts in the target language and cognitive environment of contemporary readers, or the counterparts they do have are different in significant ways. For example, the cognitive environments of most cultures lack a SANHEDRIN concept. If they have

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[55] Gutt, *Translation and Relevance*, 61, passim.

[56] Newmark, *About Translation*.

a PRIEST concept at all, it might characterize a Hindu or Roman Catholic priest more than a Sadducean priest offering Levitical sacrifices at the Temple of YHWH in ancient Jerusalem. A culture might have a custom whereby some women keep their head covered, but the meaning of the custom might involve 'pay per view' rather than modesty. As a result, if the author's intended concepts and assumptions are not explained to the readers at the point where they are needed, then the translated text will inevitably evoke the concepts and assumptions of the readers' own cognitive environment, especially when the text is in their own language. Even people familiar with the text fail to grasp the author's meaning if no one explains the author's concepts and assumptions to them. When Harriet Hill studied a highly churched ethnic group in Côte d'Ivoire, she found that trained, experienced pastors and Bible teachers failed to grasp much of the meaning and significance of the New Testament until they were provided with notes in their own language explaining the implicated concepts and assumptions.[57] A paratext can meet this need by supplementing the translated text with essential information in a variety of genres; annotations, introductions, mini-articles, cross-references, and glossary entries can elucidate key concepts and assumptions of the biblical world, while maps and timelines can provide a spatio-temporal framework for narratives. Study Bibles often provide a paratext with these genres of paratext, but the introductions and annotations of current study Bibles are generally uneven in value, because the selection of information was not informed by a naturalized hermeneutic. Thus some of the paratextual information is irrelevant, while some essential contextual premises are left unarticulated. On the other hand, *a bare translated text can never enable biblical illiterates to comprehend the explicatures which the author sought to communicate. They need an explanation of the foreign concepts and assumptions that the author intended to evoke.*

There are alternatives to a communicative annotated translation. A free retelling of the author's message can explain foreign and unfamiliar concepts as they occur, and this often happens when Bible stories are told to children. It becomes redundant, however, to explain a foreign concept every time it is signified and a contextual assumption every time it is implicated. Once people have heard a retold Bible story several times, or have heard several retold Bible stories explaining the same foreign concepts and assumptions, they no longer need the explanations. Similarly for a translated text: the translator can try to explicate foreign concepts and assumptions in the text, but this becomes redundant once the readers have achieved an adequate measure of biblical literacy. Readers could also study the Bible with an astute interpreter who can explain the original concepts and contextual assumptions at the points where they are implicated in the text. What Hill discovered, however, is that the pastors, priests, and Bible teachers had inadequate knowledge of this information and so were unable to provide it to their congregants until they had a suitably annotated Bible. If readers cannot read the Bible reliably in the absence of an astute personal tutor, then they will either misinterpret it

[57] See Hill, *The Bible at Cultural Crossroads*.

or quit reading it on their own due to insufficient cognitive rewards. So a communicative annotated translation includes a paratext that explains unfamiliar concepts and assumptions, using the various genres mentioned above.

For a this translation to succeed, its paratext should provide the information that would have been used by the original addressees to interpret the text but which is unknown or misconstrued by most contemporary readers. So the paratext needs to explain unfamiliar concepts and linguistic features, to identify uncertain references and allusions, to supply inaccessible contextual assumptions, to identify overlooked contextual implications, and to note important interpretive traditions. In other words, the paratext needs to supply the same kinds of information that are listed in Table 7-A for an exegetical exposition, but more selectively and succinctly, keeping the translated text primary.

The paratext is part of the verbal stimulus that constitutes a communicative translation, the other part being the translated text. The paratext enables readers to avoid interpreting the text as if it were evoking their own concepts and contextual assumptions, because it explicates the concepts and contextual premises that the author intended to evoke. Readers can then use conceptual information in the paratext to infer authorial explicatures, and they can use contextual information in the paratext to infer authorial implicatures. In passages where the author has implicated conclusions that the readers cannot infer, perhaps because those conclusions contradict current beliefs of their own worldview, then the paratext can note the implicated conclusion as well. As readers cycle repeatedly through the text and paratext, this paratextual information becomes linked in their minds with these passages, thereby eliminating the need for them to keep reading the paratext. Thus their level of biblical literacy increases in a hermeneutical spiral to the point where they are less dependent on the paratext because they have learned what it says.

8. Conclusion

> Literary scholars have for the most part limited
> their concerns to rather narrowly conceived "theories,"
> avoiding more fundamental aspects of language and the mind.
> — Wallace Chafe[1]

> A given hermeneutic will need to be understood as part of a much larger
> system of thought, and that system will have to be carefully evaluated.
> — Millard Erickson[2]

Most theories of biblical hermeneutics have been developed within antipsychologistic literary and philosophical frameworks that predate or ignore the sociocognitive sciences. As a result, they ignore the natural processes of interpreting communication and substitute theories that lack an adequate empirical basis and that conflict among themselves. Capable scholars have exegeted well using keen, well-informed intuitions that are consistent with cognitive science, but it is hard for them to defend those intuitions convincingly if their hermeneutic lacks the cognitive conceptual tools needed to do so. Reconstructionist hermeneuts have argued well for original context and authorial meaning but have found it difficult to defend those notions convincingly in the face of considerable hermeneutical scepticism. I have argued, however, that by grounding hermeneutical theory within the conceptual framework of the sociocognitive sciences, it is possible to justify the concepts of authorial meaning, context, exegesis, and reader's significance, and it is possible to give them precise definitions based on natural human processes. In particular I have shown that the author's envisaged context is determinative of authorial meaning and was part of what was originally communicated, thereby showing that its reconstruction is essential to the recovery of meaning.

I have argued that a sociocognitive hermeneutic can provide Bible scholars with a new and valuable set of tools for investigating authorial meaning and context, for recovering explicatures and implicatures, and for helping evaluate alternative interpretations. It can provide biblical lexicographers with new tools for investigating and explicating lexical concepts, and it can provide biblical theologians with new tools for analyzing biblical concepts. It can provide Bible translators with criteria for defining and classifying different translation styles, and it can provide commentators with criteria for identifying the specific kinds of information they need to provide in annotated translations, study Bibles, and biblical

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[1] Chafe, *Discourse, Consciousness, and Time* (Chicago: University of Chicago Press, 1994), 96.

[2] Erickson, *Evangelical Interpretation*, 123.

commentaries so their readers can reconstruct authorial meaning. The value of these tools for the hermeneutical task demonstrates the value of naturalizing biblical hermeneutics.

This hermeneutic opens new areas for biblical research as well. One is to investigate biblical concepts and schemata with a view to reconstructing whole schemata and eventually a model conceptual system. There would need to be variants for different times, people, and places. Of particular importance to biblical scholars and theologians are the concepts and worldview that were progressively constructed through the authors, which by the end constitute a reasonably coherent conceptual system known as biblical theology. This network could be developed on a web-based system of knowledge representation, as is done now for medical knowledge, with scholars contributing to it collaboratively and interactively for years to come. It could benefit from having its own online forum and journal to discuss the issues and publish theories and results. Ideally it would lead to a completely new form of Bible dictionary, namely a compendium of biblical concepts and schemata with associated lexemes, most of them phrasal.

A second implication for biblical research is the need to identify the concepts and contextual assumptions that were implicated by the authors in each different passage and which are essential for recovering authorial meaning. A number of Bible translators have been doing this as time allows, but it is a task that Bible scholars could take up. This research could proceed concurrently with identification of the explicatures and implicated conclusions that constitute the new information in the authorial meaning. This work could be developed collaboratively on a web-based database, much like the NET Bible, with scholars contributing to it interactively for years to come. Ideally it would support the development of new reconstructive exegetical commentaries based on sociocognitive principles. Both efforts could give new impetus and direction to biblical research.

These varied benefits underscore the value of shifting biblical hermeneutics to a sociocognitive paradigm. They support my thesis that the goals of reconstructionist biblical hermeneutics, both exegetical and expositional, would be well served by basing hermeneutics on a sociocognitive conceptual framework that is grounded in the empirical sciences.

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