

Explaining Christian Origins and Early Judaism

Contributions from Cognitive
and Social Science

Edited by

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BRILL

LEIDEN • BOSTON
2007

CONTENTS

Preface	vii
Introduction: Social and Cognitive Perspectives in the Study of Christian Origins and Early Judaism	1
<i>Petri Luomanen, Ilkka Pyysiäinen, and Risto Uro</i>	

PART ONE

THE PROMISE OF THE COGNITIVE SCIENCE OF RELIGION

The Promise of Cognitive Science for the Study of Early Christianity	37
<i>Luther H. Martin</i>	
The Mystery of the Stolen Body: Exploring Christian Origins	57
<i>Ilkka Pyysiäinen</i>	
The Emergence of Early Christian Religion: A Naturalistic Approach	73
<i>István Czachesz</i>	
A Cognitive Approach to Ritual Systems in First-Century Judaism	95
<i>Kimmo Ketola</i>	
Gnostic Rituals from a Cognitive Perspective	115
<i>Risto Uro</i>	

PART TWO

CONCEPTUAL BLENDING IN EARLY CHRISTIANITY

Conceptual Blending in the <i>Exegesis on the Soul</i>	141
<i>Hugo Lundhaug</i>	
Conceptual Blending and Early Christian Imagination	161
<i>Vernon K. Robbins</i>	

PART THREE

SOCIO-COGNITIVE APPROACHES TO CHRISTIAN
ORIGINS AND EARLY JUDAISM

The Sociology of Knowledge, the Social Identity Approach and the Cognitive Science of Religion	199
<i>Petri Luomanen</i>	
“Remember My Fetters”: Memorialisation of Paul’s Imprisonment	231
<i>Philip F. Esler</i>	
Social Identities and Group Phenomena in Second Temple Judaism	259
<i>Raimo Hakola</i>	
Social Identity in the Qumran Movement: The Case of the Penal Code	277
<i>Jutta Jokiranta</i>	
Epilogue	299
<i>Troels Engberg-Pedersen</i>	
Index	313

PREFACE

This collection of essays is rooted in an ongoing exchange of ideas between historians and cognitive scientists of religion. In Finland, this dialogue has been going on especially between scholars of comparative religion and biblical scholars—a phenomenon that is probably unique compared to discussions elsewhere. An important impetus has been Ilkka Pyysiäinen’s book *How Religion Works* (2001) as well as his research project on “Mind and Society in the Transmission of Religion,” funded by the Academy of Finland. These captured the attention of a few Finnish biblical scholars, the other two editors of this volume, Petri Luomanen and Risto Uro, in particular. It is, however, doubtful whether this dialogue would have ever gone beyond occasional musings over a beer without the editors of this book having temporarily become colleagues at the then newly founded *Helsinki Collegium for Advanced Studies* in 2003. The daily life at the *Collegium* provided ample opportunities for discussions and also the facilities and infrastructure for more systematic cooperation. Encouraged by the fruitful exchange of opinions and new ideas, gained from a Finnish-language seminar, an international symposium on “Body, Mind, and Society in Early Christianity” was organized in August–September 2005 at the *Collegium*.

The symposium was arranged with the idea of a publication in mind. The organizers extended the invitation to multidisciplinary-oriented biblical scholars and representatives of the cognitive science of religion. The aim was to elicit contributions where the authors took the risk of writing on subjects not within their specific areas of expertise: cognitively-oriented scholars of comparative religion were invited to write on biblical and related themes and biblical scholars to engage themselves with the application and discussion of the new cognitive approaches. The editors owe warm thanks to the contributors for the keen interest—and often enthusiasm—with which everyone accepted the challenge and devoted their time to this endeavor. Special thanks go to Luther Martin who graciously gave his time and energy in helping to find the best channel for the publication of this volume.

A number of networks and institutions supported the organizing of the international symposium that set the stage for the scholarly exchange of ideas published in this book. The *Helsinki Collegium for Advanced Studies*

hosted the symposium with the help of its skillful and always friendly administrative staff. In addition to the Director of the *Collegium*, Juha Sihvola, the editors owe gratitude to Jenni Laitinen, Taina Seiro, Iris Sinervuo and Maria Soukkio. The *Academy of Finland* provided direct funding for the symposium and also supported it through one of its Centres of Excellence, the *Research Unit for the Formation of Early Jewish and Christian Ideology*, directed by Heikki Räisänen. The financial support of the *Nordic Network for the Study of Early Christianity in its Greco-Roman Context*—flexibly arranged with the help of Halvor Moxnes—was also indispensable for the symposium.

In addition to the contributors to this volume, several other Finnish and international scholars and students participated in the symposium giving papers and responses. The editors are grateful to all participants whose questions and critical comments gave important feedback and ideas for the preparation of the essays of this volume. During the symposium, one participant stood out from the audience with perceptive questions and constructive criticism. His responses were so illuminating that it was deemed appropriate to also offer them to the readers of this volume in the form of an Epilogue—many thanks to Troels Engberg-Pedersen for his contribution!

The editors want to express their gratitude to the staff at Brill and to members of the editorial board of the *Biblical Interpretation Series* for their prompt acceptance of the volume in the series. As usual, Loes Schouten and Ivo Romein have been most kind and helpful during the various stages of the publication process. Many warm thanks also to Margot Stout Whiting for revising the English of the several non-native speakers in this volume.

In Helsinki and Oxford, May 28, 2007
Petri Luomanen, Ilkka Pyysiäinen, Risto Uro

INTRODUCTION: SOCIAL AND COGNITIVE PERSPECTIVES IN THE STUDY OF CHRISTIAN ORIGINS AND EARLY JUDAISM

Petri Luomanen, Ilkka Pyysiäinen and Risto Uro

At first sight, it seems that the cognitive science of religion and biblical studies or the study of early Judaism and early Christianity have very little in common. The cognitive science of religion is a new multidisciplinary field that emerged in the 1990s, drawing on cognitive science, cognitive and developmental psychology, neuroscience, evolutionary biology and anthropology (Lawson 2000; Pyysiäinen and Anttonen 2002; Tremlin 2006). It focuses on cross-culturally recurrent patterns in religious thought, experience, and practice, explaining these regularities in terms of the architecture of the human mind. A basic presupposition is that there are no specifically religious cognitive mechanisms or processes; what is known as “religion” is based on ordinary cognitive processes that also support non-religious behavior (Lawson and McCauley 1990; McCauley and Lawson 2002; Boyer 1994, 2001, 2003a; Pyysiäinen 2001, 2004b; Atran 2002; Atran and Norenzayan 2004; Tremlin 2006).

Biblical studies and related fields, on the other hand, mostly operate on a quite different level of explanation and interpretation. The majority of scholars engaged in the study of biblical—as well as other Jewish and early Christian—texts are historically and culturally oriented. They are interested in particular historical events, traditions or trajectories that influenced the texts under study, emphasizing the cultural construction of the phenomena studied. In fact, an appeal to universals or cross-cultural regularities may sound rather unfashionable in the postmodern situation in which all kinds of “totalities” have fallen into disrepute (Adam 1995: 11).

We are, however, convinced that recent developments in the cognitive science of religion can contribute to the historical study of religions in general and early Judaism and early Christianity in particular. We believe so basically for three reasons. First, the cognitive science of religion has introduced concepts, perspectives, and theories which may be fruitfully applied to the study of early Judaism and early Christianity and which

may open up new perspectives in research. These include the idea of ontological intuitions, the “epidemiology” of beliefs, and new theories of rituals which are, of course, classic themes in comparative religion (but notably not in biblical studies). In addition, the theory of conceptual blending provides a helpful cognitive tool for analyzing religion as crystallized in textual traditions. These perspectives and theories are used in several essays of this book.

Second, although an undisputable success story, the emergence of social-scientific approaches in biblical studies during recent decades has left us with some unanswered and nagging questions. These concern, for example, the applicability of models originally developed for the study of quite different societies than those in which the biblical texts were written. We are convinced that the theories and results in the cognitive science of religion can shed new light on some points of controversy in this ongoing discussion.

Third, in recent years, social-scientific exegesis has utilized theories that have obvious connections to cognitive psychology and to questions that the pioneers of the cognitive science of religion have also touched upon. The so-called *social identity approach* applied in several essays of this volume draws on Henri Tajfel’s experiments on human perception and categorization which are clearly cognitive phenomena (see Tajfel 1981; Abrams and Hogg 1990a). Furthermore, the study of social/cultural memory, which has begun to attract biblical scholars as a possible new means of casting light on the transmission of Jewish and Christian traditions (cf. Kirk and Thatcher 2005; Esler in this volume), also brings to the fore the question of how people cognitively construct their histories. Because this construction is constrained by basic memory functions and mechanisms of on-line social cognition, we believe that bringing these theories into closer interaction with the present cognitive science of religion will add to their explanatory potential.

In the following, we briefly elaborate on these three points, hoping to promote interdisciplinary discussion among scholars in early Jewish and early Christian studies and the cognitive science of religion. We will start with a short introduction to the cognitive science of religion, providing examples of how theories and models developed thus far have been utilized or might be utilized in the historical study of religions, such as early Judaism and early Christianity.

1. *Applying the Cognitive Science of Religion to History of Religions*

1.1. *The Pioneers*

The cognitive science of religion truly emerged in the 1990s, although its first landmark is Dan Sperber's short but important book *Rethinking Symbolism* published in 1975. In that book, Sperber argued that so-called "symbolism" is best understood as a cognitive mechanism that participates in the construction of knowledge as well as in the functioning of memory. It is not a special instrument of social communication or a property of phenomena that could be considered apart from this mechanism (Sperber 1995: xi–xii, 146–47). When a piece of information is difficult to understand but yet is felt to be important, the symbolic mechanism is triggered. It consists of a set of searches in memory, trying to find information that would somehow fit with the target information. It is striking how little influence Sperber's groundbreaking study has had on biblical studies which, nonetheless, have long been influenced by various insights from symbolist anthropology

Later, Sperber developed the "relevance theory" of communication based on the idea that the contents of messages must always be reconstructed by the receiver by making inferences from some material tokens (e.g., phonemes, letters) (Sperber and Wilson 1988). It is not possible to "copy and paste" ideas from one mind to another, as it were. The related "epidemiological" model of the differential spread of representations in and across cultures thus must take into account the fact that it is the structures of the mind that make some ideas more appealing and easier to spread than others (Sperber 1996b; see below).

An important general impetus for the cognitive science of religion has been Thomas Lawson and Robert McCauley's *Rethinking Religion* (1990), which was partly inspired by Sperber's book. Relying on Chomsky's *Syntactic Structures*, the authors tried to show that humans have intuitive knowledge of ritual structures (see also McCauley and Lawson 2002). In the same year as *Rethinking Religion* appeared, the young philosopher-turned-anthropologist, Pascal Boyer, published a small book with the title *Tradition as Truth and Communication*, putting forward a psychological explanation for the construction of traditional knowledge. This idea then grew into a scientific program for explaining the nature and formation of religious concepts and beliefs (Boyer 1994, 2001). In its latest version, this program includes an evolutionary account of the development of the basic cognitive categories and mechanisms that also make religious

thought possible (Boyer 2001, 2003a). The theoretical foundations and practical implications of this view for scholars of religion have been evaluated and elaborated by Ilkka Pyysiäinen in a number of publications (Pyysiäinen 2001, 2004a,b).

Boyer, like Justin Barrett (2004), emphasizes that religious traditions are typified by “counterintuitive” representations. Counterintuitiveness means that a represented entity is intuitively assigned to an ontological category but is also understood to contain one element that contradicts the intuitive expectations we have about objects belonging to that category. A panhuman intuitive ontology consists of intuitions concerning such ontological domains as *person*, *animal*, *plant*, and *artifact* (Boyer 1994: 101, 1998: 878). Intuitive expectations are tacit and spontaneous; we are usually not conscious of having them. Should someone point out that someone else has the belief “Cats do not talk,” that person’s spontaneous reaction would be one of astonishment: everyone knows *that*.

Everything that contradicts our category-specific intuitive expectations about objects in basic ontological categories is counterintuitive. Counterintuitiveness does not mean it is false, funny, or deluded. As our everyday intuitions do not necessarily describe reality correctly, counterintuitive concepts need not necessarily be erroneous (Boyer 1994: 100–119, 2001: 51–122). In minimally counterintuitive representations, one minor “tweak” either adds one counterintuitive feature or deletes an intuitive feature in the representation in question. The idea of a cat that talks, for example, is counterintuitive in the sense that we do not normally expect animals to talk.

Counterintuitive representations are cognitively optimal when minimal counterintuitiveness makes them attention-grabbing while their intuitive features make them easy to process (Boyer 2001; Atran 2002; Atran and Norenzayan; Norenzayan and Atran 2004; Barrett 2004). An otherwise ordinary statue which yet hears prayers is an example of a cognitively optimal representation. Having the agentic capacity to hear and to understand is a violation of expectations in the artifact category. The idea of a statue that hears prayers *from afar* would involve two violations (an artifact hearing and hearing from afar) and thus be a maximally counterintuitive representation (Boyer 2001: 86; Atran 2002: 95–107; Atran and Norenzayan 2004: 722).

Boyer and Ramble (2001) as well as Barrett and Nyhof (2001) found, in their psychological experiments, that when subjects had to recall lists of items and events they had read about in the context of a short story, their recall was better for minimally counterintuitive representa-

tions than for intuitive ones. Minimally counterintuitive representations also survived the best in artificial transmission to others in three “generations” of subjects. The experiments carried out in the USA were replicated in Nepal (Buddhist monks) and in Gabon (lay-people) with very much the same results.

Atran (2002: 105), however, observes that, in laboratory experiments, the nature of the task may make subjects pay special attention to nonnatural representations and that intuitive representations thus lose their privileged status. When counterintuitive representations are not presented in the context of an exciting, sciencefiction-like narrative, intuitive representations are recalled the best (Atran and Norenzayan 2004: 721–23; Norenzayan and Atran 2004: 159). Studies conducted by Lauren Gonce, Afzal Upal and colleagues seem to confirm this. Upal and colleagues argue that minimally counterintuitive representations are better recalled when the narrative context creates an expectation for counterintuitive concepts which people may thus experience as intuitive. As different types of discourse activate different kinds of background knowledge, people can, for example, expect the attack of aliens when watching a science fiction movie but not when listening to radio news (Upal 2005; Gonce et al. 2006; Upal et al. 2007; Tweney et al. 2006).

Context thus seems to play a crucial role in item recall. In real life, concepts are usually embedded in a context and it is in this context that their counterintuitiveness is evaluated (Tweney et al. 2006; Gonce et al. 2006). Think of the following embedding of the counterintuitive concept of a “flying cow:”

Looking through the kitchen window, I saw the flying cow. The twister had lifted the animal 50 feet above the ground (Tweney et al. 2006: 486).

One who reads only the first sentence, is led to interpret the flying cow as a minimally counterintuitive concept whereas the second sentence provides a context in which the flying cow becomes an intuitive concept. Thus, context can make apparently counterintuitive concepts intuitive. But even when counterintuitiveness is retained, a relevant context can make it something to be expected. This has actually been recognized by Boyer all along. People can simply become so routinized in using some counterintuitive concepts that their counterintuitiveness is no longer recognized (Boyer 1994: 120; Sperber 1994: 62). Although, for example, a person without a body is a counterintuitive concept, one may regard it as perfectly natural that God is a bodiless spirit. God

is the one exception to the general rule “No person without a body.” After becoming routinized in using a counterintuitive concept, one is no longer aware of its counterintuitiveness; the concept is then actually changed into an intuitive concept. This serves here as an example of how mental structures channel the evolution of traditions (Pyysiäinen 2005).

The pioneers of the cognitive science of religion share the conviction that experimental cognitive psychology can yield the kind of knowledge needed for truly scientific explanations of religious thought and practice. Laboratory experiments are one important means of testing hypotheses about human cognitive mechanisms; it is these mechanisms that we also use in religious thought (see Barrett 2004). Although we do not wish to restrict the word “science” only to experimental research, we indeed believe that experimental psychology, also, has much to offer to the history of religions.

1.2. *Epidemiology and Counterintuitiveness*

The study of the transmission of religious traditions has always been important for biblical scholars; they could thus benefit from cognitive theories of the recall and spread of ideas and beliefs. However, biblical scholars have often sought to trace the “authentic” or “original” cores of biblical traditions, whether relying on the form-critical “evolutionary” model of oral traditions and the concept of *Sitz im Leben* (Bultmann 1968) or on the idea of a more solid and fixed tradition (Gerhards-son 1961). More recent contributions have emphasized the fluidity of oral traditions in contrast to written modes of transmission (Kelber 1983; Silberman 1987; Wansbrough 1991; Dewey 1994; Dunn 2000), highlighting the difficulties involved in the attempts to reconstruct the original forms or *ipsissima verba* of the biblical traditions that originate in oral transmission. The cognitive science of religion provides models and theories that help explain the role of literacy and other external memory stores in human cognition. The role of writing in the development of hierarchical institutions, for example, has recently been debated (Whitehouse 2000: 172–80; Boyer 2001: 77–81; Pyysiäinen 2004b: 147–71).

A still more recent approach in biblical studies has taken the concept of “social memory” as a tool for analyzing the transmission of biblical traditions (Kirk and Thatcher 2005; cf. also Esler in this volume). This approach emphasizes that what is recalled is always constrained by

social factors. There is no doubt that memory is conditioned by various social factors (this view was already anticipated by the form critics in biblical studies) and various kinds of external memory aids, most notably writing. However, it is equally true that memory is constrained by the cognitive mechanisms of the mind that the cognitive science of religion seeks to explicate.

In the cognitive analysis of cultural transmission, it is possible to focus either on how specific ideas relate to cognitive structures (Bering 2002, 2006) or on the differential spread of ideas in and across cultures (see Barrett 2003). In this latter line of thinking, cultures are understood as precipitations of cognition and communication in populations (Sperber 1996b: 97); there is always overlap between cultures as well as differences within cultures. Cultures and traditions are not closed systems and they do not determine individual thinking and behavior in such a way as postulated in extreme constructionism (e.g., Geertz 1973; see Pyysiäinen 2005). We should not simply put cultural concepts in opposition to individual or “innate” concepts as though they were two mutually exclusive classes of concepts. “Being cultural” only means that some individual concepts have become widespread (Boyer 2003b). Everyone grows up in a community, and whatever genetically specified, innate cognitive mechanisms there are, they always operate in a context, processing shared information. Likewise, whatever we learn from the cultural environment is always constrained by the structures of the mind. Cultural transmission thus always involves inferential processes (Sperber and Wilson 1988).

We already briefly referred to Sperber’s “epidemiological” model (this label is perhaps not the most fortunate one since it easily evokes negative associations). In the standard epidemiological model, the transmission of religious concepts and beliefs is regarded as being channeled by ordinary cognitive structures in the sense that those religious concepts that trigger intuitive mechanisms of mind are naturally selected for cultural transmission (see Boyer in press; Pyysiäinen 2004a). Cultural transmission works analogously to natural selection in the sense that some items are more “fit” for selection because the human mind is better prepared for processing some ideas than others. Whatever corresponds to human intuitions is easy to process in an almost automatic fashion while abstract, reflective thinking requires much effort and the use of such external memory stores as paper and pen, books, computers, and so forth (see Pyysiäinen 2004a).

According to Sperber (1996b), three facts about the human mind make certain ideas naturally appealing. (1) Ideas that resonate with intuitive ways of thinking are easy to process; (2) ideas that are relevant in the sense that processing them yields new information tend to persist; and (3) ideas that are easy to recall because they are somehow attention-grabbing have a selective advantage.

Sperber's model has been presented as a contribution to anthropology but it can also be applied in historical studies. Because the epidemiology of beliefs or representations focuses on explaining why some ideas are more "contagious" than others, the perspective is different from the study of origins which has traditionally dominated biblical studies (as well as the early phase of religious studies). Thus, it introduces an alternative point of view to the development for Jewish and Christian traditions.

Sperber's and Boyer's selective models focus on generalities of religion, trying to explain its cognitive basis. The models have not been extensively applied to explain the development of any single belief, set of beliefs, or a tradition. In this volume, Pysiäinen's essay is this kind of an attempt to explain the spread of Christian beliefs, however.

1.3. *Intuitions and Theology*

Recent interest in the social world of the Bible and in various micro-historical issues such as family, kinship, economy, sickness and healing, and purity and impurity as an alternative to the study of theological ideas, finds an interesting theoretical and empirical confirmation in the distinction between intuitions and theology as it has been made in the cognitive science of religion. A written theology is not an exhaustive catalog of the beliefs of the members of a group. Theological doctrines are rather artifacts that serve as cues directing people's inferences; being exposed to some official theological formulations triggers mental representations that are more salient than others to start with. Although we can often predict more or less accurately what kinds of ideas people will end up entertaining after being exposed to certain teachings, there are no necessary links between these ideas and the theological stimuli. The actually represented ideas do not mechanically follow from the perceived stimuli; they are brought about by an active inferential or associative process in the mind (see Sperber and Wilson 1988). The actual religious thought and behavior of individuals is thus not based on making applied deductions from theological systems. There is now

some experimental evidence to support this view (Barrett and Keil 1996; Barrett 1998).

In experimental studies, Barrett and Keil (1996) found that American college students had two kinds of representations of God: the theological concept was based on such rehearsed cultural knowledge as, for example, that God is omniscient, omnipotent, and so forth. In fast online reasoning tasks, the subjects unconsciously used a more human-like (“anthropomorphic”) representation of God, however. Barrett (1998) replicated the study in India, substituting Brahman, Shiva, Vishnu, and Krishna for God with essentially the same result. The theologically correct concept of God did not have the required inferential potential. The subjects had to rely on an unorthodox, intuitive concept of God that allowed for the needed inferences. The distinction between intuitions and reflective thinking thus seems to be partly paralleled by the distinction between “real-time” religion, on the one hand, and theology based on “off-line” cognition and the book-mind interaction, on the other hand (see Pyysiäinen 2004b: 147–71).

Barrett’s and Boyer’s distinction between off-line theology and on-line intuitions springs from research in social psychology, neuropsychology, and cognitive science focusing on two distinct reasoning systems in humans, often referred to as automatic and controlled processes (see Pyysiäinen 2004a; Tremblin 2006: 172–82). Automatic processes are fast, work without conscious effort, and cannot be initiated or terminated at will. Controlled processes are the opposite of this and support reflective thinking (see Sun 2002; Wyer and Srull 1994; Chaiken and Trope 1999). Automatic processes thus more or less correspond to what Boyer (1994) and Barrett (2004) call “intuitions.” Intuitions here mean presuppositions that intrude on explicit reasoning, although they are not voluntarily or even consciously brought into the chain of inferences and their validity cannot be assessed. They thus tend to override more reflective beliefs.

It is, therefore, one thing to write the history of religious ideas as they are found in texts and another thing to try to go beyond the texts and write the history of what was really going on in real-time religion (see Pyysiäinen 2005). Luther Martin’s essay in this volume is an attempt to show how cognitive theories can be applied in the history of religions to supplement and provide correctives to the traditional approaches (also Pyysiäinen in this volume). The so-called “history of mentalities” that emerged from the *Annales* School in French historical writing in the 1920s is one such approach that could be further elaborated from

a cognitive perspective (see Revel and Hunt 1995). Czachesz' essay is an attempt to develop completely new cognitive tools that could help us understand and explain the development of early Christianity.

1.4. *Rituals*

As Claude Lévi-Strauss once quipped, gods are not only good to think about but also good to eat. Eating here refers to ritual meals that help generate and maintain common knowledge in a group (see Chwe 2001; Pyysiäinen 2004b: 135–46). The category of rituals is a vague one, however; rituals manifest a particular mode of action, while there is not necessarily any common feature shared by all the situations in which this mode of action is used. There is no unified set of phenomena that a theory of religious ritual could explain (Boyer and Liénard 2006; Liénard and Boyer 2006).

For analytical purposes, rituals have been divided into calendrical rites, crisis rites, and rites of passage in which a person or persons are moved to a new social position (Honko 1979). In reference to rites of passage, Boyer (2001: 229–63) argues that (1) there are panhuman evolved mechanisms of the mind, specialized in handling information about social relationships; (2) that these mechanisms are tacit and intuitive and we are normally not conscious of them and cannot perceive how they function; and (3) that therefore the ways in which changes in social position are brought about have an aura of magic around them. Boyer also points out that, beginning from infancy, we repeatedly see our cultural elders associate a given ritual with given social effects. This, then, explains why we are conditioned to think that rituals causally produce the desired social effects as well as why we are motivated to stick to these ritual behaviors and to transmit them to future generations.

According to Lawson and McCauley (1990), religious rituals can be differentiated from other kinds of rituals by the fact that, in them, the causal powers of the ritual are ascribed to some counterintuitive agent (also McCauley and Lawson 2002; cf. Boyer 2001: 236, 256). Lawson and McCauley argue at length that people have intuitive knowledge about ritual structures because rituals follow the general pattern of *action* (vs. something just happening): someone does something for someone by means of something. Only religious rituals include a “culturally postulated superhuman agent” (a CPS agent) either as the actor, patient, or instrument of the ritual action. Barrett and Lawson (2001) have

experimentally shown that, in judging whether a hypothetical ritual is effective, people regard having an appropriate intentional agent as relatively more important than the particular action.

Just as any performance of action presupposes certain earlier performances of actions, so also rituals presuppose other rituals. Normally, such chains of actions can be traced back to earlier enabling actions endlessly; this is not so with religious ritual actions. Although they presuppose previous enabling actions, there are unequivocal limits to their number. A minister, for example, is capable of ritually pronouncing a couple man and wife *because* (s)he himself/herself has undergone the ritual of ordination. The bishop who ordained the minister was able to do so *because* he himself had received a proper ordination. The chain of ordinations can, in principle, be traced back to St. Peter who was ordained by Jesus. But it is with Jesus as God that the chain stops. God does not need any enabling rituals to be able to establish “super-permanent” effects. This supposed fact about Christian rituals is one instance of the more general principle that counterintuitive agents terminate an otherwise endless regression of enabling rituals (Lawson and McCauley 1990; McCauley and Lawson 2002). Underlying this argument is a similar view of God as foundation, as in the medieval proofs for the existence of God, relying on the Aristotelian idea of an unmoved mover and first cause, albeit Lawson and McCauley are not attempting to prove anything about the existence of God.

Some rituals, like baptisms and funerals, are performed only once for any one patient; others can be performed on a regular basis. Lawson and McCauley think that some rituals are not repeated for one and the same patient because a counterintuitive agent is the active agent (directly or indirectly) in those rituals. These are called special agent rituals in the sense that the active agent is a counterintuitive agent. And, “when the gods act...the effects are super-permanent” and the ritual in question need not be repeated for the same patient (McCauley 2001: 132; see McCauley and Lawson 2002: 122). This is so because some religious arrangements are regarded as super-permanent: as it is thought that mere humans cannot establish any such arrangements, they are ascribed to counterintuitive agents. In other types of rituals, a counterintuitive agent is involved in the role of a patient or an instrument. These special patient/instrument rituals can be repeated for the same patient time and again (McCauley 2001: 130–33; McCauley and Lawson 2002: 120–22). Influenced by Chomsky’s linguistic theory, Lawson and McCauley see the placement of agency as a simple yes or

no question, although it might be argued that in religious rituals agency can also be reciprocal (cf. Ketola and Jokiranta in this volume).

The fact that some rituals provoke a great deal of emotion while some do not is of importance. It could easily be argued that the amount of emotional arousal depends on the frequency of performance: routinized rituals apparently cannot provoke emotions (Whitehouse 1995, 2002, 2004; but cf. Boyer and Liénard 2006). Lawson and McCauley, however, argue that the amount of emotion depends on whether the ritual is a special agent or a special patient/instrument ritual (that is, on the *form* of the ritual). Only special agent rituals involve sensory pageantry and provoke intense emotions (as compared to other rituals in the same tradition). This is so because, if a ritual is to have a superpermanent effect, the participants must be convinced that the effect really is permanent. Therefore, the rituals are arranged to be as emotionally provocative as possible, with emotions signaling to people that something very significant is going on. (McCauley 2001: 130–33; McCauley and Lawson 2002: 120–22.) However, the differences and interconnections between ritual frequency and ritual form may eventually turn out to be manifestations of some more general factors (Atran 2002: 290–91). Ritual form and ritual frequency may be two alternative—but not exclusive—means of creating a feeling that an intimate presence of counterintuitive agents is involved (Pyysiäinen 2001: 91–95).

Harvey Whitehouse has put forward the modes theory of religiosity based on the division between the imagistic and doctrinal modes of cultural transmission. McCauley and Lawson (2002) call this the “ritual frequency theory” (Whitehouse 1995, 2000, 2002, 2004; cf. Pyysiäinen 2006; Whitehouse 1996). Whitehouse argues that all religious traditions tend to develop either towards large-scale organizations characterized by orthodoxy and dry ritual routine (doctrinal mode), or towards small-scale communities placing emphasis on emotionally arousing rituals without any sanctioned interpretation of their meaning (imagistic mode). The idea of the two modes is based on the view that rituals are a means of maintaining and transmitting religious traditions and that memory plays a crucial role here. The modes are characterized by 12 variables (Table 1.1.) none of which is considered to be more fundamental than the others.

A “mode” means an abstract “attractor position” that emerges from the interaction of the 12 variables. This entails that there are certain special causal mechanisms that produce attraction between the various imagistic variable contents as well as between doctrinal variable con-

Table 1.1. The two modes of religiosity (Whitehouse 2004: 74).

	Doctrinal	Imagistic
Psychological Features		
1. Transmissive frequency	High	Low
2. Level of arousal	Low	High
3. Principal memory system	Semantic schemas and implicit scripts	Episodic/flashbulb memory
4. Ritual meaning	Learned/acquired	Internally generated
5. Techniques of revelation	Rhetoric/logical integration, narrative	Iconicity, multivocality multivalence
Sociopolitical Features		
6. Social cohesion	Diffuse	Intense
7. Leadership	Dynamic	Passive/absent
8. Inclusivity/exclusivity	Inclusive	Exclusive
9. Spread	Rapid/efficient	Slow/inefficient
10. Scale	Large scale	Small scale
11. Degree of uniformity	High	Low
12. Structure	Centralized	Noncentralized

tents. Likewise, these mechanisms also prevent imagistic and doctrinal contents from attracting each other (see Boyer 2005). Thus, imagism and doctrinality are not types of religiosity but rather abstract ideal types. We cannot simply divide religious traditions into imagistic and doctrinal ones; most traditions contain elements from both. Although most living religiosity seems to consist of a mixture of imagistic and doctrinal elements, Whitehouse believes that this is somewhat anomalous and that, in the long run, religions will develop towards either the imagistic or the doctrinal attractor position. This view is not without its problems.

For one thing, the crucial factor seems not to be the time scales. Whitehouse seems rather to be after some kind of distinction between what happens in empirical reality versus what are the ideal relationships between variable contents (see Pysiäinen 2006). The two attractor positions are not real phenomena but rather abstractions expressing ideal constellations. It is, however, rather difficult to see what it is that determines these ideal positions. One might try to explain this by an analogy to Chomsky's distinction between linguistic competence and performance which inspired Lawson and McCauley. At the level of ideal competence, religions fall neatly either to the imagistic or the doctrinal slot. The reason why this does not happen in real religious

traditions is that the human performance is constrained by factors external to the modal variables. This, however, makes the theory a purely formal theory with the consequence that its empirical testing is as difficult as that of Chomsky's theory, which has kept on assuming ever new forms, apparently without any obvious reason (e.g., Pinker and Jackendoff 2005).

These problems are reflected in Ketola's and Uro's essays. Ketola also attempts to create a pragmatic synthesis of the two ritual theories. As both theories seem to include important insights about ritual behavior and the transmission of religion, it is necessary to find a way of using them to construct a theory—or at least a set of hypotheses—that could be applied in the historical study of Judaism and early Christianity. This is not only a cognitive problem but also intimately tied to other problems that have been explored in biblical studies using, for example, social identity theories.

1.5. *Conceptual Blending*

The idea of counterintuitive representations and their memory effects puts a heavy emphasis on the formal properties of mental representations: it is the structure, not the content of the representations that makes them easily spread. This structure, then, is explained with reference to human cognitive architecture. However, a historian of religion cannot neglect questions of content. We must ask how the specific contents of various types of religious concepts and beliefs are constructed. As they obviously result from a kind of “reshuffling”¹ of components of perceptual experience, it becomes necessary to find tools to explain how this reshuffling happens. Some scholars of religion have therefore turned to the literature on metaphors (Lakoff and Johnson 1980; Lakoff 1987) and the so-called mental spaces and conceptual integration and blending (Fauconnier 1994, 1997; Fauconnier and Turner 1996, 1998, 2002).

While Lakoff and Johnson have studied linguistic metaphors in English and especially the human body as a source of metaphors, the theory of conceptual blending approaches meaning on the basis of the idea

¹ The concept of “reshuffling” is taken from Peter Munz (1959: 55, 1973: 56) who argues that in folktales, legends, myths, dreams, and so forth, events appear in non-normal relations, being “re-shuffled like a pack of cards.”

of the so-called “mental spaces.” These are locally constructed abstract domains within which concepts acquire their meaning. They are “small conceptual packets constructed as we think and talk, for purposes of local understanding and action” (Fauconnier and Turner 1996: 113, 1998: 137, 2002: 40). There are then mappings between various spaces based on such linguistic devices as pronouns and anaphora. The basic idea is very similar to the one explaining how counterintuitive representations are constructed; here the focus, however, is not on individual concepts or representations but on larger units, the mental spaces within which concepts acquire meaning.

Conceptual blending requires: (1) the so-called generic space containing the abstract structure common to the (2) two or more input spaces; and (3) a blended space that contains the elements of the input spaces and the elements of the blend (Fauconnier and Turner 2002: 46). Thus, conceptual blends differ from mere metaphors in which one domain is simply conceptualized on the basis of another (Lakoff and Johnson 1980; Lakoff 1987). Representations of magical rituals, for example, can be understood as mental spaces in which the profane and the sacred spaces have been blended (Sørensen 2007).

In this volume, Lundhaug uses *blending theory* to explain the metaphor of the “womb of the soul” in the Nag Hammadi tractate the *Exegesis on the Soul* (NHC II,6), trying to show its rhetorical function and its relation to other conceptual metaphors in the tractate. Robbins borrows the concept of “rhetorical dialects” from the Emory University sociolinguist Benjamin Hardy, arguing that the first century Christian discourse consisted of six “rhetorolects” that were dynamically blended. Robbins thus first breaks the Christian discourse into its constitutive units and then shows how the creativity of this discourse is based on a blending of these units in various ways. Conceptual blending thus offers a mediating approach between the standard model of the cognitive science of religion (Boyer 2005: 4–7) and more content-oriented approaches.

2. *Open Questions in Social-Scientific Biblical Interpretation*

The social-scientific study of the Bible emerged in the 1970s as a reaction against the “biblical theology” movement that was influential before and after the World War II (Garrett 1992). Scholars began to criticize the one-sided concentration on the history of ideas (Meeks 1972) and the

“methodological docetism” (Scroggs 1980) of the established methods. To put body and soul back together again, as it were, and to avoid limiting early Christian reality to mere theological or dogmatic systems, they sought help from the methods used and insights achieved in the social sciences. Many of the pioneering works had a clear functionalist orientation (Theissen 1977; Meeks 1972, 1983). In contrast to the focus on the original forms or genetic relationships, scholars inspired by social-scientific approaches sought to discover the social function of the biblical traditions and beliefs in their cultural and historical settings.

Social-scientific biblical criticism has grown into a major movement in the field and has produced a huge number of studies using various theoretical traditions of the social sciences, such as Berger and Luckmann’s sociology of knowledge (Meeks 1972; Esler 1987; Horrell 1993, 2001), Weber’s typology of charisma (Theissen 1977; Holmberg 1978), the grid and group model by Mary Douglas (Malina 1986; Neyrey 1986), sectarian studies (Gager 1975; Elliott 1981), Mediterranean anthropology (Rohrbaugh 1996), medical anthropology (Pilch 2000), Anthony Giddens’ structuration theory (Horrell 1996), and the social identity approach (Esler 1998a, 2003), to mention a few examples (see also Esler 1995b; Blasi, Duhaime, and Turcotte 2002; Stegemann, Malina, and Theissen 2002). It has become more and more difficult to give a summary of the main questions and developments within this field (for descriptions at different stages of the movement, see, e.g., Elliott 1986; Holmberg 1990; Osiek 1992; Martin 1999; Horrell 2002; Esler 2004). It seems, however, that two issues especially often come up when the development and status of social-scientific exegesis is reviewed, namely cultural distance and the role of models.

2.1. *Bridging the Cultural Gap*

One important current in the social-scientific study of the Bible emphasizes the cultural distance between the ancient biblical world and the situation of the modern interpreter who usually lives in a Western society. The agenda of this approach was laid out by Bruce Malina in his groundbreaking *The New Testament World* (1981, 3rd ed. 2001), and was later elaborated by the members of the so-called Context Group (see, e.g., Malina and Neyrey 1988; Rohrbaugh 1996; Pilch 2001). Malina and his co-workers focus on the pivotal cultural values and norms of the ancient (to some degree also present) Mediterranean world: honor and shame, the non-individualist view of person (“dyadic personality”),

the perception of limited good, kinship values, and purity rules. The main objective of the Context Group is to promote an approach which would avoid the perils of ethnocentric and anachronistic readings and to pay heed to the strikingly different social dynamics at work in the biblical texts. Malina's models, borrowed from cultural anthropology, are illuminating and didactic; they have helped students and scholars to become sensitive to the social distance between the biblical texts and modern Western cultural values and to familiarize themselves with the "strange" world of the biblical authors.

However, as indispensable as it is for biblical scholars (or for anthropologists as well), the emphasis on social distance or cultural difference is only one side of the coin. As Malina himself notes, his cultural reading of the Bible assumes that "all human beings are somewhat the same and somewhat different" and he focuses "on *the interplay of similarities and differences* within human communities" (1981: 8–9; italics added). Thus, in his chapter on purity and impurity, Malina writes that "every culture has . . . purity rules, since every culture has a classification system," although he quickly adds that the Western individualistic horizon of limitless good generates a totally different set of rules than was dominant in first-century Palestine (p. 129).

The cognitive science of religion, however, focuses on the cross-cultural cognitive basis of categorization and its manifestation in various kinds of recurrent ideas and patterns. The widespread phenomenon of fear of pollution and contagion and the related avoidance behavior is but one example (see Sperber 1996a; Nemeroff and Rozin 2000; Boyer 2001; Fessler and Navarrete 2003). Although the cognitive explanations of contagion are often general and do not give direct answers to questions in the analysis of particular issues within a specific cultural context—a problem we also have with sociological explanations (Horrell 1996: 13, 22–26)—they can contribute to understanding the obvious overlap in categorization in various cultures (e.g., Atran 1998). Thus the cognitive perspective can help counterbalance the one-sided emphasis on social distance.

Malina and the Context Group's polarized models of differences between the Western and Mediterranean values (see, e.g., Malina and Neyrey 1988) are one way of conceptualizing the cultural situation of early Judaism and early Christianity. The cognitive approach, envisioned in this book, offers another alternative which would focus on what Malina calls the "interplay of similarities and differences within human communities." If "similarities" are sought in the cognitive basis

of human cultures and behavior and “differences” in the cultural concepts and rationalizations, the analysis of the “interplay” between these two could turn out to be beneficial. For example, one could focus on analyzing how the idea of corpse impurity developed in early Judaism and early Christianity and how Christianity gradually changed people’s behavioral reactions towards corpses. The avoidance of impure corpses may well have an evolutionary basis (Boyer 2001: 243–48) and thus it is very difficult to change a person’s emotional reactions to corpses. Cultural education and practices such as burying the deceased beneath churches and in churchyards (Samellas 2002; Sellew 2006), however, might mold people’s reflective ideas of and behavioral reactions to corpses.

2.2. *Models*

The use of models has been an important cause of debate among sociologically and socio-historically-oriented scholars of early Judaism and early Christianity (Malina 1982; Elliott 1986, 1993; Garrett 1992; Esler 1995a, 2000; Horrell 1996, 2000; Martin 1999; Luomanen 2002). At first, the central role of the term “model” in this methodological discussion may appear somewhat strange to a social or cognitive scientist not versed in the jargon of biblical scholars since critical discussion on the validity and usefulness of models has by and large not been of much importance in the social sciences (cf. Horrell 1996: 10).

One reason for the centrality of the topic of models is that the pioneers of social-scientific exegesis have drawn on the distinction between theories and models made by Thomas Carney (1975). Carney distinguishes between theories that are based on “axiomatic laws” and present “general principles,” and models that “act as a link between theories and observations,” providing a simplified “framework which can be brought to bear on some pertinent data” (cf. Elliot 1986: 4–5, 1993: 8; Holmberg 1990: 12–15; Esler 1987: 9–16). Occasionally, social scientifically oriented scholars have also used the term “model” to characterize large-scale research frameworks, such as structural-functionalism (Malina 1982: 233; Esler 1987: 9, 1998b: 254; cf. Elliott 1986: 7; Horrell 1996: 10–11). Some critics have found this confusing (Horrell 1996: 9–12; Martin 1999: 129–30), but in this regard, biblical scholars do not fare worse than social scientists in general (cf. Marshall 1998: 427).

Whether abstract or concrete, models have become a practical means of introducing new perspectives and questions to the study of

biblical texts. In particular, scholars affiliated with the Context Group have advocated models as practical heuristics to overcome the cultural distance between the modern Western individualistic culture and the ancient Mediterranean culture; this has made models a central topic in the discussion.

Although the discussion of models among biblical scholars has some characteristic (terminological) features of its own, the basic methodological and theoretical problems are typical of the social sciences in general: should models be taken as mere heuristic tools or as a means of explaining, testing and predicting? Is it possible to employ models developed in quite distant (either modern industrialized or contemporary non-industrialized) societies to ancient biblical societies? Do models presume a deterministic view of life and social order as opposed to a view which grants more freedom to individual actors? The debate includes several issues and it would be impossible to deal with all the aspects of the discussion within the limits of this introduction. Thus, we will focus only on some aspects where we believe that allying the social-scientific study of early Judaism and early Christianity more closely with the cognitive science of religion would offer new perspectives on the debate (see also Martin in this volume).

Those who advocate the use of models often follow Carney in stating that there is no choice as to whether to use models or not since model construction is an inevitable part of the basic human processes of perception and categorization (Carney 1975: 5; Elliott 1986: 5–6, 1993: 44–45; Esler 1994: 12; 1995a: 4, 1998b: 255). Presumably, a closer interaction with recent cognitive research might help explicate the character of these processes that have not only constrained the thinking of the ancients under investigation but also their modern interpreters.

The advocates of the use of models have responded to the critics who claim that models presume “positivism” or “determinism” or “filling-in gaps” (Stowers 1985; Garrett 1992; Horrell 1996: 18–22; Martin 1999: 130) by emphasizing that models are only heuristic tools that have no ontological reality. They only help find new questions and frameworks which may—or may not—prove to be helpful in understanding the texts (Elliott 1993: 43–45; Esler 1995a:7; 1998b: 256). However, this rather pragmatic approach to the usefulness of models leaves open the question of *why* a certain model or framework finds “responsive data” in the text (cf. Esler 1998b: 256). This makes the use of models vulnerable to the criticism that predetermined models direct the interpreters

towards finding what they seek (Horrell 1996: 15–16). By bringing the cognitive scientific point of view into this discussion, it should be possible to give more nuanced answers to the question of why a model fits the data. Are there only coincidental correspondences between cultural variables of two temporally distinct cultures or does the model embody cross-culturally valid generalities in human cognition?

Our discussion of the social identity approach in the following section—as well as several essays of this book that apply this approach—serve as but a few examples of how a model that has been used in the social-scientific study of early Judaism and early Christianity can be brought to closer interaction with cognitive science. In the case of the social identity approach, it seems clear that its usability is at least partly based on the fact that modern observations about basic human processes of social categorization find responsive data in the text because the writers of the texts were subject to same constraints of perception as we are.

The cognitive science of religion is a self-consciously science-based approach. In this sense, it aligns with the social-*scientific* camp of biblical scholars who stress the use of testable models and theories against those who advocate less model-based, yet social or social-historical approaches. As noted above, the criticism of determinism has often been leveled against those who favor model-based approaches in biblical studies. We, however, think that an important question to ask is whether models are supported by evidence, not whether they are deterministic. Furthermore, explaining human behavior does not necessarily in itself mean determinism because explaining consists not only of forming general laws, but also unique events can be explained with reference to the underlying causal factors. The cognitive science of religion which focuses on why there are cross-culturally recurrent patterns in human thought and behavior can also be used to explain the various unique manifestations of more general principles. It thus can shed new light on the general question of the use of deductive models and theories in historical research.

3. *Toward a New Synthesis: The Social Identity Approach, Social Memory and Cognitive Science*

3.1. *The Social Identity Approach: Beyond Laboratory Experiments?*

The expression *social-identity approach* is an umbrella term which nowadays refers to Henri Tajfel and John Turner's *social identity theory* that was mainly developed in the 1970s, to Turner's *self-categorization theory* developed in the middle of the 1980s, and to later adaptations of these theories. Social identity theory and self-categorization theory are closely related; self-categorization theory, however, focuses more on the cognitive processes through which persons come to see and feel themselves as members of a group, as well as on the question of how membership in the group influences an individual's behavior (Abrams and McGarty 1990: 11). Although self-categorization theory today is usually connected with the name of John Turner, the theory itself draws on the research on perception and cognition that Tajfel conducted in the beginning of his scientific career in the 1950s and 1960s.

Social psychologists showed growing interest in the social identity approach during the 1990s (Hogg and Abrams 1999), and Philip Esler introduced it to New Testament research in his books on Galatians (1998a) and Romans (2003). It is no coincidence that several essays in this volume deal with the approach (Esler, Hakola, Jokiranta, and Luomanen); the "built-in" cognitive interface of the social identity approach was one of the things that convinced us of the benefits of bringing together scholars of the cognitive science of religion and social-scientifically oriented scholars of early Judaism and early Christianity. Since the basic concepts and theories of the social identity approach are presented in various essays in this volume (see especially Luomanen), we here only try to illuminate the cognitive background of the approach and its present status in social psychological research.

Tajfel was one of the key scholars in developing a distinctively European social psychology. Tajfel's (1981) collection of essays from different phases of his career clearly shows how the author's attitude towards social psychological research was shaped by his own experiences during the World War II. Tajfel emphasizes that although many features of group behavior have their roots in the cognition of individuals, there are also significant aspects of group behavior that cannot be reduced to individual psychology. In Tajfel's view, social psychological research

should be able to transcend the limits of analyzing individual and pre-social motives by illuminating the factors that make people behave the way they do in groups and in actual historical situations (Tajfel 1981: 38–41). The social identity approach was consciously developed as a corrective to the reductionism and individualism that characterized social psychological research in the 1950s and 1960s (Abrams and Hogg 1990a: 1–9). In contrast to laboratory experiments, it focused on studying real-life intergroup relations. According to Hogg and Abrams, this was “an assault on the hollowness of explanations of international conflict, genocide and so on, purely in terms of individuality without any consideration of sociohistorical factors” (Hogg and Abrams 1988: 13).

Tajfel has undoubtedly inspired scholars who favor phenomenological and interpretative approaches rather than “sterile” laboratory experiments which they think cannot reach what is truly social in human behavior. Against this background, it might appear futile to search for a common ground for a fruitful exchange between the cognitive science of religion and the social identity approach. We, however, do not regard laboratory experiments and the study of real-life social psychological phenomena as two mutually exclusive options. Instead, we think that recent developments in cognitive science can also contribute to social theorizing on intragroup, intergroup and cultural phenomena (see Cohen 2007). In fact, for Tajfel, “social psychology is not a catalogue of individual, or even group, idiosyncrasies of social behavior” (Tajfel 1981: 23). Laboratory experiments also characterized the early stages of his own career and he continued to prefer theories “which can be tested experimentally” (Tajfel 1981: 18). However, he kept emphasizing that in the case of the study of *social* behavior, the experimental conditions always tend to become socially “contaminated” by the research arrangements more than, for instance, in a case when a general psychologist studies perceptual constancies or short-term memory (Tajfel 1981: 22–23). Recent developments in social psychology again seek to integrate laboratory studies of social cognition with other approaches in social psychology (see below).

3.2. *What is Cognitive in Social Identity Theory?*

Although Tajfel’s lifelong pursuit was to develop a properly *social* psychological understanding of prejudice and intergroup conflict, his earliest work focused on perception and the cognitive basis of categorization.

In this regard, he can also be regarded as a pioneer of a cognitive approach to categorization; this then became one of the dominant topics in American research on social cognition (Hogg and Abrams 1999).

There are two basic features of cognitive processing that are fundamental to the social identity approach (including both social identity theory and self-categorization theory): *categorization* and *accentuation*. The cognitive processes of categorization are fundamental to our adaptation to the world in which we live. Categorization simplifies perception. When, for instance, we look at a rainbow, we see it as consisting of different colors. Yet we know from science classes that in reality there is only a continuous distribution of different wavelengths with no borders indicating where one color ends and the next one begins. Categorization helps us to structure the potentially infinite number of different stimuli into a more manageable number of categories (Hogg and Abrams 1988: 19–20).

Categorization is accompanied by accentuation which significantly boosts the process of categorization. In the beginning of the 1960s, Tajfel and Wilkes found that when subjects were judging the length of individual lines on a continuum where the “short” end of the continuum was labeled “A” and the long end “B,” they significantly exaggerated the difference between the A-type and B-type of lines. Furthermore, they tended to overestimate the similarity of the lines within the categories of A and B. Thus, all the A-lines were perceived to be more similar than they actually were; their difference in relation to the B-type of lines was also exaggerated (see Hogg and Abrams 1988: 19–20). Further experiments have shown that the same processes of categorization and accentuation also effect the estimation of social stimuli, that is, other people and other groups. It is easy to see the relation of these basic cognitive processes to phenomena that play a central role in intergroup relations: prejudice, ingroup biases, and social stereotypes.

The experiments have shown that there are two important catalysts in the process of categorization. First, accentuation accompanies categorization only in the dimensions people *themselves believe to be somehow connected* to the categorization. Second, the accentuation effect is more pronounced if the *categorization is of high personal value* to the individual observer (Hogg and Abrams 1988: 20). The latter aspect, in particular, is of importance in social categorization because categorization of other people usually has some relevance to our own self-image (Hogg and Abrams 1988: 20–21). In a study where the subjects were asked to classify people with different skin colors, for example, it was noticed

that prejudiced subjects accentuated the differences between the skin colors more than non-prejudiced subjects (Tajfel 1981: 77–78). In studies, already conducted in the 1950s, it was also noticed that when anti-Semites and non-anti-Semites were asked to recognize Jews in the pictures showed to them, the anti-Semites found more Jews in the pictures than the non-anti-Semites. One might call this a “better safe than sorry”—principle. In Tajfel’s view, the same cognitive phenomenon can be seen in the witch hunts of the past, for example (Tajfel 1981: 154).

Interestingly, recent cognitive experiments on perceptions of race cohere with Tajfel’s results, casting new light on the cognitive machinery involved in racial categorization. Cosmides, Tooby and Kurzban (2003) discuss the cognitive systems that might explain the automatic and obviously mandatory racial coding that has been attested in several experiments. Since evolutionary considerations rule out the possibility that there could be a computational system in the human mind specifically designed for this purpose—our hunter-gatherer ancestors were less likely to encounter other races—racial coding must be a by-product of some other systems. Experiments seem to rule out the possibility that racial categorization would be a direct by-product of perceptual/correlational systems (i.e., that observations of similar skin color would form the basis of a racial category). For instance, colors of clothing are not automatically registered if they have no social significance.

According to Cosmides, Tooby and Kurzban (2003), there remain two possible candidates for the relevant systems involved:

- (1) Racial categorizations are by-products of the essentialist inference system involved in categorizing natural kinds. This system presumes that objects belonging to the same category all have similar underlying essences that make them for what they are. Notably, this essentialist categorization does not require perceptual similarity; it can be supported by mere labeling (Cosmides, Tooby, and Kurzban 2003: 176; see Ahn et al. 2001).
- (2) Another possibility is that there is cognitive machinery designed for tracking coalitional alliances. Of the two alternatives, it is the latter one that seems to be mainly responsible for racial categorization, although it is possible that the essentialist system also contributes to the categorization under some circumstances. The central role of the coalitional systems is inferred from experiments by Kurzban et al. (2001). They showed that subjects who had a lifelong experi-

ence of race as a coalition-predicting cue, revised their categorizations to reflect the new coalitions when they were exposed for four minutes to an alternative situation where coalitional alliances were not predicted by race.

In social psychology, there is an established tradition in the study of intergroup relations going back to M. Sherif's research on boys' summer camps and Tajfel's minimal group experiments (for a summary, see Hakola in this volume). Cosmides, Tooby and Kurzban's recent findings are in agreement with the results of these experiments. The authors correctly note that "the coalitional byproduct hypothesis fits neatly with the literature on ingroup favoritism and outgroup derogation, readily explaining why stereotypes of racial outgroups often include derogatory elements" (Cosmides, Tooby, and Kurzban 2003: 177).

From the point of view of the social identity approach, it is interesting that Cosmides, Tooby and Kurzban trace the racial categorizations back to a cognitive system that is activated in the presence of other humans. In this regard, it coheres with the basic assumptions of social identity research according to which humans are ready to adjust their perceived identities according to available social groups that offer opportunities for the building of positive (self or group) identities. On the other hand, this kind of cognitive research is a useful reminder of the fact that there is no need to contrast cognitive science with more socially-oriented research since carefully planned experiments on individual cognition can also help explain fundamental group processes.

3.3. *Toward a New Synthesis*

In the field of social psychology in the 1970s and 1980s, there was still a split between the cognitively-oriented American research tradition on social cognition and the more socially-oriented European social psychology focusing on social identity. The split had its roots in the growth of a distinctively European social psychology in the late 1960s and the beginning of the 1970s. During the 1970s and 1980s, European social psychology became more and more interested in studying social processes in wider social contexts while the American tradition focused more on the individual cognitive processes. Since the beginning of the 1990s, the gap has lessened; now a growing number of Americans are doing research on social identity while Europeans are also involved in research on social cognition (cf. Leyens, Yzerbyt and Schadron 1994:

103–27; Hogg and Abrams 1999; Nye and Brower 1996a, 1996b; Fiske and Goodwin 1996).

We find the present volume to be in harmony with these recent developments in social psychology. Several of the essays provide examples of how the social identity approach can be connected to more cognitively-oriented theorizing in the study of early Judaism and early Christianity.

Although the pioneers of the social identity approach tended to neglect the historical dimension in the analysis of identities, more recently the situation has changed, with some social identity theorists starting to ask how identities relate to the past and the future (for instance, Cinnirella 1998). In this volume, Esler seeks to integrate the social identity approach with the study of the past by drawing on Maurice Halbwach's idea of collective memory (Halbwachs 1980). Halbwachs, however, tends to ascribe to groups a mental life of their own in a Durkheimian manner, thereby neglecting the question of how memories are transmitted by individuals. Esler tries to solve the problem with the help of cognitive psychological studies on memory. Here he not only develops the social identity approach but also makes an important contribution to the study of collective or social memory which scholars of early Judaism and early Christianity have recently found to be a new and promising area of research (see Kirk and Thatcher 2005). Because the theories of social or collective memory have been applied mainly to questions of the transmission of religious ideas, cognitive scientific theories of cultural transmission can be of much help here.

Luomanen's essay provides examples of concepts and themes (i.e., prototypes, exemplars and ingroup favoritism) that are central to the social identity approach but have also been dealt with in the cognitive science of religion (Sperber and Boyer, in particular). The social identity approach is also applied in Hakola's and Jokiranta's case studies. Hakola's discussion of group phenomena in the Second Temple period approaches the topic from a classic social identity perspective which is closely connected to the cognitive basis of the theory: (re-)categorizations that accentuate ingroup distinctiveness and positive ingroup identity. Jokiranta's analysis of the Qumran community and its penal code provides a historical example of the type of religious fundamentalism Boyer has discussed (2001: 292–96).

4. *Conclusion*

The multi- and interdisciplinary research envisioned in this introduction is exemplified in many of the essays in this volume. The book has been divided into three sections. Essays in the first section explore the general prospects of the cognitive approaches in the study of Christian origins and early Judaism, focusing on such issues as the spread of the resurrection traditions, the emergence of early Christian religion and early Jewish and Christian rituals. The second section contains two applications of conceptual blending theory to early Christian materials. The essays in the third part venture to combine traditional historical and social-scientific approaches with various cognitive perspectives and theories, seeking to conjoin social and cognitive aspects of identity and memory. This volume may still leave many crucial issues open and, perhaps, raise more questions than it can answer. We hope, however, that it will mark the beginning of a fruitful exchange of ideas between scholars interested in the social-scientific study of early Judaism/Christianity and in the cognitive science of religion.

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