Cognitive Science of Religion **Open Access**

Andreas Nordin*

Cognition and Transfer of Contagious Substance in Hindu Himalayan Pilgrim Journeys

DOI 10.1515/opth-2016-0002
Received September 11, 2015; accepted September 25, 2015

Abstract: Ideas and practices about the transfer of substances believed to be charged with positive or negative properties are significant features of pilgrimages. Oftenneglected features of pilgrimages can be addressed by adopting concepts from the Cognitive Science of Religion. Religious pilgrimages are popular phenomena that are based on ritual interaction with culturally-postulated counterintuitive supernatural agents. This article partly refers to and analyses ethnographic data gathered during fieldwork among Hindu pilgrims in Nepal and Tibet. The pilgrims received items to take home from the pilgrimage site but they also left other items there. This constituted a transfer of contagious substances that carried blessings and supernatural agency/power and it enabled the discharging of defilement, sin or evil. The aim of this article is to show how the beliefs about substance transfer are shaped by cultural institutions and by cognitive selection pressures related to psychological essentialism and concepts of agency and contagion relating to counterintuitive agents.

Keywords: Hinduism, pilgrimage, substances, ritual instruments, cognition, magical practice

Introduction

The aim of this article is to offer cognitive and cultural epidemiological explanations for the ritualized use and transfer of substance in pilgrimage, particularly Hindu Himalayan pilgrimage. I propose that the widespread practice of religious substance transfer in pilgrimages is underpinned by the cognitive systems of essentialist psychology, contagion and contamination that connect counterintuitive assumptions with ritual beliefs. In cultural institutions such as religious pilgrimages, the ritualized use and transfer of special items and substances are common and popular. These religious substances are considered to be not just inert material but quasi-living phenomena. The transfer of these items and substances provide ritual instruments connected to beliefs about supernatural causation associated with pilgrimage.

In this article I shall therefore analyse the ritualization of substance in pilgrimage in relation to cognition and culture. I shall be making use of methods elaborated in naturalized research programs of cognitive anthropology and the Cognitive Science of Religion (CSR).[1] In particular, I employ a cultural

1 See for example Boyer, *Religion Explained:*, 1-50; McCauley & Lawson, "Who owns "Culture"?", 171-190; Sørensen, "Religion in Mind," 465-494.

***Corresponding author: Andreas Nordin,** University of Gothenburg, Sweden, e-mail: andreas.nordin@kultvet.gu.se

selectionist stance and the approach of "cultural epidemiology",[2] which is often used in the study of culture and cognition and in the Cognitive Science of Religion. This perspective sees cultural phenomena as a distribution and recurrence of mental and public representations in communities and their habitat.[3] The spread and the constitution of cultural phenomena and cultural representations depend on the complex interplay of various cognitive factors or "social cognitive causal chains".[4] Although the psychological and cognitive underpinnings of the transmission and distribution of cultural items are usually stressed in this approach, the causal importance of various mind/mental external, contextual, ecological, institutional and enculturated cognitive feedback factors are also recognized.[5] Indeed, the involvement of social institutional dynamics in the attribution of "special" status to features of pilgrimage such as substance will be highlighted in this paper.

What to Study in "Pilgrimage"

I propose that cognitive approaches may offer valuable explanations and descriptions of *significant elements* of pilgrimage that have previously tended to be ignored (in pilgrimage studies and in mainstream anti-naturalistic anthropology). Using a cognitive approach also enables us to describe and explain certain common patterns in pilgrimage (e.g. in or between cultures). My objective is not to explain "pilgrimages" but to focus on recurrent features and "building blocks" within them. Consequently, I am not so much concerned with a "universal" theory of pilgrimage as I am with how to explain features that recur in most pilgrimages. Although there are local cultural variations, there are also recurrent themes in most world religions and religious folk traditions of ritually-stipulated journeys to special sites. These sites are characterized by supernatural agents with remarkable powers.

What to Study, as Shown by an Ethnographic Illustration

In order to demonstrate the point about significant elements in this article, I shall use an ethnographic illustration from fieldwork. Udaya Ram Acharya was a farmer and learned man (*pandit*) who at the age of 57 walked eleven days on mountain trails to the high-altitude pilgrim site of Muktinath in Nepal. He had previously completed several pilgrimages in India. In accordance with Hindu tradition, some of the journeys were to ancestral cult sites (*shraddha*). Udaya believes that Muktinath is the mouth of god *Bhagawan* and a place with miraculous fire *jawalamukhi* where the saint *Swaminarayan* once resided. He claims that pilgrimage sites are of no value unless items of special significance can be brought home from them. Udaya says that items from Muktinath are valued because of their special purity and holiness, *pavitra*. Further, a pilgrim (*tirtha yatri*) who is able to bring something home from Muktinath has a duty to share it with relatives and friends upon return. It was Udaya's intention to share Muktinath's sacred substances with his relatives. He intended to carry home substances such as *jal*, or Muktinath's sacred water, in a plastic bottle, often used among pilgrims. Like other pilgrims, Udaya gathered a special type of ammonite fossil known as *saligram* and various blessed foods, *prasad,* such as candies or pieces of nuts or fruit. Like other pilgrims, Udaya believed that the *saligram*-fossil is an avatar or manifestation of *Vishnu*. Because supernatural agents like *Vishnu* are considered to have the innate quality of *pavitra* or sacred purity, avatars like the *saligram*-fossil are inherently *pavitra*. This implies that the *saligram*-fossil needs no prior ritual purification in order to function as an instrument in ritual procedures. Udaya states that substances brought from Muktinath will be used in *nitya karma* or various everyday ritual routines connected to the cult of domestic gods. Furthermore, *jal,* or sacred water, is to be dripped on the lips of family members at their moment of death.

2 Atran, *In Gods We Trust*; Barrett, *Why would Anyone Believe in God*; Boyer, *Religion Explained*; Pyysiäinen, *Magic, Miracles, and Religion*; Sperber, *Explaining Culture*.

3 Sperber, *Explaining Culture*.

4 Ibid.

5 For example Heintz, "Institutions as Mechanisms of Cultural Evolution"; Sperber, "A naturalistic ontology."

According to Udaya, Muktinath's unique substances were more special than those in his home district, because they came from the mouth of God *Bhagawan*.

The story about Udaya aims to show a general pattern within pilgrimage about: (a) transfer and exchange; (b) animacy, agency and "personhood"; (c) substance, essence and value (d) contagion and magical beliefs. So travellers to the sites engage in the transfer of "religious" objects and substances (as seen in the Udaya case) and their journeys connect hardship with merit and virtue, and transform other substances related to sin, death and defilement into something neutral or positive (see below). Consequently, in pilgrimage there is a more or less explicit transfer of "negative" substances to a site and of "positive" substances from the site.

Contemporary Theories and the Issue of a Recurrent Pattern of Features in Pilgrimage

The approach advocated in this context may seem like a "weak" universalism, according to which I claim it is statistically probable that certain features or sets of features recur within and between cultural environments. This leads me to the major theories of pilgrimage. Various theories of pilgrimage have been developed[6] and among them the concepts of "communitas" and "contestation"[7] have been prominent. Turner used the term "communitas" to describe the exhilarating feelings of egalitarianism, fraternalism, universalism and social openness that emerged during the "liminal" phase of ritual sequences and that opposed or transcended normal "social structure".[8] These approaches all present "symbolist theories";[9] they describe religious phenomena such as pilgrimages as expressions of psychological (and "existential urge") or social dynamics,[10] or of worldviews and religious doctrines.[11] For anthropologists, it was a short step to view pilgrimages as a mixture of social and psychological functions, which, in combination with the semiotic expression of cosmological ideas gave rise to "communitas".[12] However, anthropologists were unable to find evidence of communitas is some cultural contexts.[13] The idea of "communitas" fell out of favour, and it was concluded that pilgrimage was a contested phenomenon and that the only thing common to different pilgrimages was political contestation between competing discourses and groups.[14] This led Eade and Sallnow to conclude that there is nothing intra-culturally distinctive nor is there a cross-culturally constant in pilgrimage; the "meaning" of pilgrimage is instead relative and particular to the group, context and strategy of contestation.[15]

However, most cases of pilgrimage may be poor examples of contestation, since other concerns are more common and important for the pilgrims. Indeed, the approaches mentioned seem unable to offer adequate explanations for many of the phenomena that recur in pilgrimages, such as ritualized substance transfer and supernatural agents. One general problem with earlier approaches was that the perhaps tried to explain all aspects of pilgrimages by focusing on *one* aspect and then offering this as a "magic bullet" explanation.[16] Categories such as religion and pilgrimage cover a broad range of phenomena and should therefore perhaps be "fractionated" into their constitutive parts. These parts – their recurrence and

6 Morinis, *Pilgrimage in the Hindu Tradition*, 233; *Sacred Journeys*, 7-9.
7 Coleman, "Do you believe in pilgrimage?", 355-368.
8 Turner and Turner, *Image and Pilgrimage in Christian Culture,* 250-251.
9 Lawson and McCauley, *Rethinking Religion,* 37-38.
10 See for example Wolf, "The Virgin of Guadalupe," 34-39; Yamba; *Permanent Pilgrims,* 19-25, 179-191; van der Veer, *Gods on Earth*, 58-65; Osterreith, "Pilgrimage, Travel and Existential Quest," 25-39; Sumption, *Pilgrimage,* 302; Turnbull, "Postscript," 257-262; cf. Daniel, *Fluid Signs*, 233-286.
11 Morinis, *Pilgrimage in the Hindu Tradition*, 276-299.
12 Turner and Turner, *Image and Pilgrimage in Christian Culture*, 13, 35-39.
13 Pfaffenberger, "The Kataragama Pilgrimage," 253-270; Messerschmidt and Sharma, "Hindu Pilgrimage in the Nepal Himalayas," 571-572; Morinis, "Pilgrimage in the Hindu Tradition,"255-260; Sallnow, "Communitas reconsidered," 163-182.
14 Eade and Sallnow, *Contesting the Sacred*, 2.
15 Ibid., 3.
16 Cf. Boyer, *Religion Explained*, 298; Boyer, "A Reductionistic Model," 3-4.

relationships – may then be addressed separately so as to better fit the needs of scientific investigation.[17] Following these ideas, I am not concerned in this article with the "nature" of pilgrimage *per se* but with ideas and practices that are common in this fragmented phenomenon.

Supernaturalism and Ritual Interaction as Principal Elements of "Pilgrimages"

Supernatural agents tend to be given little analytical attention in the theorizing of mainstream anthropology and pilgrimage studies.[18] Instead, scholars often argue that the definitive factor of pilgrimage is the sacred site that is the goal of the journey.[19] However, this makes pilgrimage little different from other forms of journeying, such as tourism. Sacred values are certainly important in pilgrimage but this would seem to stem from the fact that they are connected to supernatural agents. I therefore contend that pilgrimage, seen from a cross-cultural perspective, involves supernatural agents, and the article starts from the premise that pilgrimages are generally journeys based on ritual interaction with culturally postulated supernatural (counterintuitive) agents.[20] Seen from this perspective, my Hindu Nepalese case appears to be a local example of cross-cultural themes. This way of viewing pilgrimage echoes some aspects of Lawson and McCauley's ritual theories.[21] It is helpful for exploring pilgrims' interactions with supernatural agents and ritual instruments but is less useful for examining what McCauley and Lawson describe as people's well-formed representations of their ritual conduct. The following two sections offer a more brief account of the concept of supernatural agent, the notion of counterintuition, and some topics in the cognitive study of ritual, ritualization and ritual cognition.

The Cognition of Supernatural Agents

One notable feature of pilgrimages is that they refer directly or indirectly to supernatural agents that are cognitively counterintuitive.[22] The idea of counterintuition refers to breaches or violations of intuitive expectations about ontological categories.[23] Such breaches render (minimally) counterintuitive concepts *cognitively optimal* in cultural transmission and communication.[24] Counterintuitive processing implies that humans have implicit expectations or theories regarding what kinds of things there are in the world. These are *intuitive ontologies* that are spontaneously employed in *category formation* and our everyday interaction with the world.[25] Accordingly, humans have intuitive expectations and make distinctions between animate and inanimate objects and between persons, animals, plants, artefacts and natural or physical objects. Culturally selected counterintuitive ideas conform to some intuitive ontologies while breaching others. Counterintuitive notions, such as invisible or omnipotent people, animate mountains, living stones and statues that can cry or fly, capture people's attention and are memorable. They consequently tend to be selected over cognitively non-optimal concepts in cultural transmission. Cognitively optimal counterintuitive ideas thus form the backbone of religious traditions and they offer explanations for the recurrence of certain types of concepts as resulting from cultural and cognitive selection. Several studies have qualified the

17 Atran, *In Gods We Trust*, 8-14; Boyer, *Religion Explained*, 50, 298; Boyer, "A Reductionistic Model," 3-4; Sørensen, "Religion in Mind," 467-468.

18 Cf. Coleman, "Do you believe in pilgrimage?", 355-368; Eade and Sallnow, *Contesting the Sacred*, 1-29: Morinis, *Sacred Journeys*, 1-28; Reader and Walter, *Pilgrimage in popular culture*, 1-25.

19 Morinis, *Sacred Journeys*; Reader and Walter, *Pilgrimage in popular culture*.

20 See for example Nordin, "Ritual agency," 195-223.

21 Lawson and McCauley, *Rethinking Religion*; McCauley and Lawson, *Bringing Ritual to Mind*.

22 Boyer, *The Naturalness of Religious Ideas*.

23 Barrett, "Exploring the natural foundations of religion"; Boyer, *The Naturalness of Religious Ideas*; Boyer, *Religion Explained*; Pyysiäinen, *How Religion works*.

24 Boyer and Ramble, "Cognitive templates for religious concepts."

25 Boyer, *The Naturalness of Religious Ideas*; Boyer, *Religion Explained*.

notion of counterintuition by showing that modestly rather than massively counterintuitive representations tend to be recalled and transmitted better[26] and that contextual expectations and narrative embedding are crucial for the recall of modestly counterintuitive representations.[27] This means that counterintuitive concepts are evaluated according to the contextual setting of which they are a part.[28] Other studies by Upal suggest have suggested different types of minimally counterintuitive concepts based either on context-based models or on content.[29] Research by Porubanova et al. suggests that concepts that are culturally counter-schematic and unexpected are remembered better than concepts that violate with ontological domain expectations.[30] These studies show that notions of agents that breach with both cultural-schema and domain-level expectations tend to be remembered better than are concepts referring to object and artefacts (non-agents).

Ritual, Ritualization and Ritual Cognition in Pilgrimage

Pilgrim journeys are usually religious institutions that represent distinct kind of sequenced action-conglomerate. They may be labelled as "ritual" in local terms (e.g. "hajj", "hac", "tirtha yatra", "Cháoshèng", "peregrinación"). As a form of traditional ritual interaction a pilgrimage consists of a) combinations of minor rituals such as blessings, sacrifices, consecrations, purification, divination, prayers and b) ritualization in the sense of formalized, rigid and stereotypical actions, events and objects. The terms relational or interactive properties of pilgrimage refer to interactions with special agents. Further, ritualization[31] is seen from the hazard precaution theory and phenomenal description of ritualized behaviour, as described by Pascal Boyer and Pierre Liénard.[32] According to this theory, that is part of the general epidemiological model, ritualized behaviours have selective advantages in cultural transmission due to the activation of a Hazard Precaution System.

This theory proposes that ritual events includes recurrent features of formalized ritualized behaviour, characterized by non-instrumentality, stereotopy, rigidity, repetition and goal demotion, and that these traits are by-products activation of hazard precautionary systems that evolved for non-ritualistic purposes. Such a hazard precaution system is an adaptation that evolved for detection and response to a range of diffuse and hard-monitored threats.[33] It is uncertain whether or not threat removal has been achieved since the threats cannot be detected or observed. However, the variety of such threats means it may be difficult to match measures to them. The noteworthy feeling of necessity and urgency associated with ritualized behaviour – the feeling that something must be performed immediately and done in right way – derive from the activation of hazard precaution responses. Furthermore, the ultimate goal and meaning of ritualized behaviour is demoted and the behaviour is "parsed" into smaller units. Complex actions such as "purification" are divided into sections and action scripts such as "cleaning in this particular order, manner and with this or that instrument". Concern about acting correctly corresponds with uncertainty about whether or not the objective of the behaviour has been achieved. In line with such a description, experimental research supports the notion that ritual behaviour is scripted in peculiar ways and, for example, parsed on a finer level.[34]

Ritualized behaviour is often associated with ideas about contact with supernatural substance, and blessings with these are abundant on pilgrimages and at "sacred sites". They draw heavily on essentialist

26 Barrett and Nyhof, "Spreading non-natural concepts"; Boyer and Ramble, "Cognitive templates for religious concepts."
27 Atran, *In Gods We Trust*; Atran and Norenzayan, "Religions's evolutionary landscape"; Gonce and Upal et al., "Role of context."
28 Gonce and Upal et al., "Role of context."
29 Upal, "An Alternative View."
30 Porubanova et al., "Memory for Expectation-Violating Concepts."
31 See for example Bell, *Ritual Theory, Ritual Practice*; Humphrey & Laidlaw, *The Archetypal Actions of Ritual*.
32 Boyer and Lienard, "Why Ritualized Behavior?"; Lienard and Boyer, "Whence Collective Rituals?".
33 Boyer and Liénard, "Why Ritualized Behavior?", 18.
34 See for example Nielbo and Sørensen, "Hierarchical Organization."

psychology and cognition of contagious contact.[35] The aim of this article is to demonstrate and analyze the use and cognition of such supernatural substance.

The Lawson and McCauley Approach

Another approach that spawned cognitive accounts of rituals was developed by McCauley and Lawson in their theory of ritual action representation.[36] These authors develop a model for how and why humans associate rituals with gods. A key point in their approach is that ritual actions are a subset of ordinary actions and they are governed by the same principles and actions-representations except that the efficacy of rituals assumes supernatural causality. I follows that believers' ideas about ritual efficacy presume the "principle of superhuman agency".[37] A cognitive action-representation system maps ontological categories such as animals, artefacts/objects, persons onto "slots" in action-description – essentially agent, patient and instrument. These conditions structure believers' assumptions about efficacy and how well-formed the arrangement of real-life ritual form and performance. Of interest here is the authors' suggestion that believers' intuitions define the type of ritual as either "special agent", "instrument" or "patient" rituals, depending on what is considered to be causative in the ritual action script. Circumcisions and funerals are "special agent rituals" since supernatural agents operate on the actor in the ritual (e.g. a priest connected to divinity blesses and consecrates the deceased). McCauley and Lawson hold that the structure of special agent rituals and the idea of being "acted upon" by gods explain the high sensory and emotional arousal during these rituals. Sacrifices, rites of penance or healing and Holy Communion are examples of "special patient rituals" since the connection to supernatural agency is via the "patient" (e.g. when a sick person is directly affected by the sacrifice of a goat to the gods). Divinatory rituals and blessings are often "special instrument rituals" in which the connection to supernatural agency is through the instruments employed. McCauley and Lawson further noted that ritual performance is based on cognitive representations of the *immediate* causal power of supernatural agents.[38] Rituals are thus preconditioned by real, hypothetical and "buck-stopper" (e.g. mythological) enabling rituals with some elements implicating supernatural agency.

The Ritual Action Representation Approach and the Study of Pilgrimage

The summaries presented above have some implications for an analysis of pilgrimages and serves as a complement to earlier ritual models of the phenomenon.[39] The hazard precaution system model introduced above is mentioned as a prominent theory that explains the cultural prevalence of (a) ritualized actions in pilgrimage and (b) compulsive thinking and norms, as well as offering a conceptual bridge to notions of contagion and transfer of substance seen in pilgrimage. A crucial point in McCauley and Lawson's theory that will be employed in this article is that it (a) provides a testable model about how causal beliefs and rationalization operate in ritual cognition in relation to (b) the cultural prevalence of ritual forms, and importantly that it (c) is a model that offers an explanation of the alleged "importance" and "specialness" of ritual and ritual objects that points to a conceptual bridge and connection with essentialism (as will be developed below). McCauley and Lawson argue that pilgrimages are a form of special-instrument ritual and they cite the Islamic Hajj and the Hindu Khumba Melas as examples.[40] They also argue that pilgrimage lacks high sensory pageantry manifested in special agent rituals because of the intrinsic structure of these rituals. McCauley and Lawson's model

35 Nordin, "Ritual agency."
36 Lawson and McCauley, *Rethinking Religion*; McCauley and Lawson, *Bringing Ritual to Mind*.
37 McCauley and Lawson, *Bringing Ritual to Mind*, 26-27.
38 Ibid.
39 E.g. Turner and Turner, *Image and Pilgrimage in Christian Culture*.
40 McCauley and Lawson, *Bringing Ritual to Mind*, 151.

has been much debated and I contend that the most promising feature of pilgrimages for study is the notion of supernatural efficacy.

McCauley and Lawson's ideas are not fully supported by my case of Himalayan pilgrimage since there was no consensus among pilgrims in their exegeses of supernatural causation in rituals. This lack of agreement about the exact role played by supernatural agents in rituals echoes findings of other studies, such as Malley and Barrett's.[41] Further, pilgrims' exegeses and the "theologically correct" understanding of the journey as whole were predominantly of supernatural determinism, according to which *Vishnu*, *Shiva* or *Baghawan* have conditioned the entire world. Pilgrims also mentioned ritual features that suggest structures of special instrument and patient-rituals, such as sacrifice, penitence and atonement for sin or defilement as parts of the journey, though at the same time the supernatural agent was also held to enable the completion of the pilgrimage by giving merit, blessings, divine substance and future rewards. This may suggest that pilgrims partly favour the special agent-ritual representation. However, as discussed below, the transfer of substance seen in pilgrimage relates to assumptions about supernatural immediacy in rituals.

Connecting Ritual Instruments, Supernatural Immediacy and Substances in Pilgrimage

The following section uses both theory and ethnography to highlight the structural links between ritual instruments, supernatural immediacy and substances in Himalayan pilgrimage. I shall be partially adopting but also qualifying McCauley and Lawson's suggestion that notions of supernatural agent concepts are necessary for the explanation of beliefs in ritual causality and efficacy.[42] Depending on how and when the appearance of supernatural agents in rituals is understood, there is an *immediacy* or implied structural depth to the original causal power that is necessary if one is to believe in ritual efficacy.[43] The condition of immediacy and structural depth of rituals imply the performance of prior enabling rituals that are associated with supernatural agents and that establish ritual efficacy. This model positions some rituals as more central in any cultural and religious system depending on the implied immediacy, structural depth and relative lack of enabling rituals. Therefore, basic and central rituals enable subsequent rituals and have few or no enabling rituals.[44] Supernatural immediacy seems to increase in the case of pilgrimage. A supernatural immediacy effect may also contribute to explaining why pilgrimages are considered "special". Generally such indistinct notions relate to sacredness and to ideas and values about some taken-for-granted specialness and distinguishability of the item. Indeed, the cognitive processes of such alleged specialness will be further demonstrated in the context of essentialist understanding and contagion below. Further, the specialness seems to be because of the relative absence of preparatory rituals and the potential to enable subsequent rituals. In this sense, pilgrimages are structurally central (although perhaps not always the most important in believers lives) rituals in Nepalese and Hindu cultural and religious systems. It is the transfer of supernatural substance that seems to be of cardinal importance in connecting pilgrimage with subsequent rituals. Pilgrimage establishes a connection with supernatural agents through the transfer of various blessed substances. As will be discussed further, substances taken from pilgrimage sites are considered especially sacred and blessed and they are desirable because they provide instruments and means of performing subsequent rituals. Pilgrimage is therefore crucial for the transfer of supernatural agency and for establishing causal efficacy in subsequent rituals, daily ritual routine, protections, purification, death-related rites and ancestral cults. Supernatural immediacy in pilgrimage also depends on unmediated interaction with divine agents at the site. This theme is connected to the transfer of contagious religious substances in Himalayan pilgrimages that will be analyzed in detail below.

41 Malley and Barrett, "Can ritual form be predicted from religious beliefs?"
42 McCauley and Lawson, *Bringing Ritual to Mind*, 167-169.
43 Ibid., 167-169.
44 Ibid., 33.

Supernaturalism in Himalayan Pilgrimage

The following ethnographic section is an attempt to demonstrate the use of supernaturalism and counterintuition in pilgrimage. Counterintuitive concepts of supernatural agents are not only prevalent in pilgrimages but they also have a constitutive and pragmatic function. These concepts are strongly associated with belief in the sacredness of pilgrimage and a pilgrimage site is identified through reference to supernatural agents. This link between notions of supernatural agents and pilgrimage is seen not only in ritual efficacy beliefs but also in beliefs in the merits and benefits of hardship, in vow fulfilment, in atonement and the idea of a good death at a pilgrimage site. Furthermore, the significance of supernatural agents in Hindu and Nepalese pilgrimages is also seen in the widespread beliefs in miracles, *ajap*. This confirms Turner and Turner's observation that places of pilgrimage are sites "believed to be places where miracles once happened, still happen, and may happen again".[45] Belief in miracles illustrates the importance of counterintuitive assumptions. In general, a phenomenon that violates panhuman intuitive ontological expectations will be considered miraculous,[46] at least in a religious context. We may expect that beliefs in miraculous phenomena will be favoured in cultural transmission and communication because of their extraordinary and attention-catching qualities. Miracles usually imply counterintuitive causes, but the effects may not always be counterintuitive.[47] We may therefore distinguish two types of miracles: "banal miracles" are the most widespread and they imply a counterintuitive cause. By contrast, "spectacular miracles" are those that occur when phenomena are represented as manifestly counterintuitive, in retold legends, second-hand reports and rumours. As construed in this context, miracles are connected to counterintuitive notions. There may also be marvels that refer to common events that are amazing or bizarre but not miracles, as suggested by Hume.[48] But the quality of marvels suggests that when they occur in a religious context they will be explained by counterintuitive causes. Miracles are often causally linked to the pilgrimage and take place in various forms before, during or after the journey. Spectacular miracles are reported in stories and legends about the origin of the pilgrim site.

Pilgrimage Miracles and Ethnographic Illustration

There are numerous reports of miracles associated with pilgrimages such as at the Muktinath site, where *Vishnu* is held to have died and taken the form of a *saligram* fossil or an ancient statue of *Vishnu Narayan*. The statue is believed to have flown over the mountains and fixed itself to the rock at Muktinath. More common are the tales of banal miracles that tend to intensify during pilgrimages. In these cases, supernatural agency is believed to have caused seemingly ordinary or natural events. During my fieldwork, pilgrims recounted seeing divine play or *lila* in the trees, mountains, caves, glaciers, temples, water and plants. Bizarre geological formations were worshipped as footprints or traces of supernatural agents. Religious and human artefacts became naturalized (or "super-naturalized"), for example with statues and temples being explained as spontaneous manifestations of a divine actor. The *shaivite* pilgrim cult of *Jyotir linga,* or spontaneously arising temples, is a paradigmatic example. Any event that takes place during a pilgrimage may be interpreted as miraculous. Among those I spoke with, special dreams, meeting a particular pilgrim or guru or simply seeing *darshana* the pilgrimage site were often considered to be supernaturally-caused auspicious events that were the work of supernatural agents. Furthermore, miraculous phenomena occurred in relation to auspicious portents and vows - the idea that the future would bring unspecified "fruitful" good fortunes as a reward for a completed pilgrimage. The vows consisted of pilgrims secretly promising a supernatural agent that they would carry out a pilgrimage in order to fulfil the agent's wishes.

45 Turner and Turner, *Image and Pilgrimage in Christian Culture*, 6.
46 Pyysiäinen, *Magic, Miracles, and Religion*, 83-86; Shanafeld, "Magic, Miracle, and Marvels in Anthropology," 330-331.
47 Pyysiäinen, *Magic, Miracles, and Religion*, 83-86.
48 Hume, *Enquiry Concerning Human Understanding*.

Tirtha Yatra and Hindu Pilgrimage as Concept and Practice

Among pilgrims at Muktinath, Pasupatinath and Mt. Kailash and Manasarovar, *tirtha yatra*, *darshan yatra* or *darshan* were the terms used for pilgrimage. In Hindu tradition, pilgrimage is called *tirtha yatra*, although *tirtha yatra* is awarded different meanings depending on the sect, region and tradition.[49] However, *tirtha* is usually held to enable a "crossing over" between different realms of reality. *Tirtha* refers to belief in a channel to a supernatural agent or domain that is instantiated in various locations; it may be a sacred mountain, a river or a lake or some other place associated with water, or a cave or temple or even a psychophysical point, *chakra*, in the body.[50]

In my Himalayan case, pilgrims defined the *tirtha* in part in relation to a site with a supernatural presence and in part in part in relation to other religious functions and effects, exemplars and relative distances. Thus a pilgrimage site or *tirtha* was identified as *Bhagawans'* (God's or "the lord's") place (*dham*) or a place at which a supernatural agent was believed to reside or to have left some miraculous trace or special manifestation (Mt. Kailash was believed to be *Shiva's* home). This site was said to be appropriate for practising virtuous religious conduct *hindu dharma* and ritual activities, which would then be more efficacious than if they had been carried out at home. A pilgrimage site was considered particularly sacred and pure (*pavitra*) and this was believed to purify the pilgrims' souls, *atma*. Further, these places were valued for their alleged soteriological power and as "places for mukti". The identification of a *tirtha* was also based on comparison with renowned pilgrimage sites, which are usually close to water and have temples, religious experts, huge congregations and wide media coverage. Pilgrims also often said that a *tirtha* should be far away from home and should involve a long journey. This meant that a local temple could not be a proper *tirtha* site for people living in the neighbourhood but it could for people travelling from afar. People usually regard the target site of their journey as the most sacred place of all.[51]

The Cognition of Agency, Gifts and Religious Substance

A distinctive feature of pilgrimages is the transfer of materials, gifts and substances. In my Hindu case of pilgrimage at Muktinath, Pasupatinath, Mt. Kailash and Manasarovar (Nepalese and Tibetan Himalaya) and arguably more generally in pilgrimage, there is an interrelated complex of a) transfer and exchange, b) animacy and agency, c) substance and essence and d) contagion and beliefs in magic. The transfer and contagion of substance in pilgrimage follows distinct pathways. Sacred substances and blessings flow downwards hierarchically *from* pilgrimage sites and supernatural entities to the pilgrims and their home environment. But the journey also implies that pilgrims may carry substances upwards hierarchically *to* the pilgrimage site and supernatural entities; negatively valued "gifts" – sins and evil substances – move upwards and become annihilated when they are absorbed or "eaten" by the supernatural agents.

Classical anthropological theories have addressed these issues. In Marcel Mauss' theory of the gift he claims that it is transfer (exchange) that establishes the bonds of social life.[52] Of interest here is a precursory model implying concepts of substance with animistic and anthropomorphic properties that constituted gift exchange. Mauss stated that a donor's own nature and substance are inherent in the objects they give away to others and that it is this that binds the two parties.[53] He was concerned with how gifts may contain contagious substance and this was in line with his ideas about magic, although this link was played down by other anthropologists.[54] The anthropological usage of the term "substance" may be confusing as it has at least four meanings.[55] It may be used to mean physical-biological matter, a transcendent entity, the essence

49 Bhardwaj, *Hindu Places of pilgrimage in India*.
50 Morinis, *Pilgrimage in the Hindu Tradition*.
51 See also Bhardwaj, *Hindu Places of pilgrimage in India*.
52 Mauss, *The Gift*.
53 Ibid., 10.
54 Cf. Perry, "The *gift*, the Indian gift and the 'India Gift'."
55 Carsten, *After Kinship*, 109 -111.

or vitality of an entity or something that has been distinguished according to a particular principle. The term substance has also been used to capture both the processes of social identity formation as well as dissolution in the fluidity of social life.[56]

In this paper, substance denotes the variety of objects and materials that are transferred and exchanged during pilgrimage and that are believed to be special and to contain a hidden essence that carries pollution, purification or blessing.

Animism, Anthropomorphism and Agency

Previous discussion relates to the general worship of supernatural and spiritual powers in images, stones, trees, rocks, and so on, that have long been a concern of anthropologists.[57] Numerous examples of widespread anthropomorphism (the attribution of human characteristics to inanimate entities) have been amassed by Stewart Guthrie.[58] The tendency to anthropomorphize is not limited to religion but is seen in art, science and naïve sociological reasoning. However, Guthrie's idea of anthropomorphism requires qualification since the important thing is that animate objects are considered to have human-like agency, not just morphology. The crucial point is thus: that gods and anthropomorphized objects have agency like us.[59] Conversely, anthropomorphized objects and gods differ from us in their counterintuitive properties, and this is a likely reason why animistic and anthropomorphic concepts are widespread and persistent, precisely because they violate intuitive ontological assumptions, such as intuitive physics, intuitive biology and intuitive psychology. Agency and agent concepts are intuitively held by human (agents) from early infancy and they assume certain basic properties.[60] Agents have the capacity to move and cause other things to move. Agents are animate and have a renewable source of internal energy. Human cognition entails different intuitive ontological assumptions (domain-specific expectations) and, consequently, agency should not be confused with animacy and biological qualities, such as being alive and being capable of growth, reproduction and death.[61] Obviously, being alive is only the necessary, but not sufficient, condition for agency. Agents act according to purposes and goals, and attribute to others and themselves mental states according to a "theory of mind",[62] and they adopt an "intentional stance".[63] Assumptions about the animate and agency exemplify how cognitive factors underpin pilgrims' transfer of substance by constituting what could be described as object agency.

Essentialist Reasoning: Its Metaphoric Expression and Cognition

Substance, object agency and beliefs about essence and sacred evaluation are commonly described in local discourse and metaphor. The use of metaphor deserves analytical attention since it connects conceptual domains, the religious discourse of metaphor and the seemingly important aspect of essentialist understanding that are at work in the transfer of religious substance. Metaphor comprises the use of one concept or domain to describe other concepts or domains.[64] Metaphors may convey notions of things that are only vaguely understood by rendering the inchoate in terms of something familiar. This relates to how humans employ essentialist understanding. Psychological essentialism is seen in folk theories that

56 Ibid., 120.
57 Gell, *Art and Agency*, 121.
58 Guthrie, *Faces in the Clouds*.
59 Barrett, "Do children experience God like adults do?"; Boyer, "Causal understandings in cultural representations"; Lawson, "Psychological perspective on agency."
60 Lawson, "Psychological perspective on agency"; Leslie, "A Theory of Agency"; Pyysiäinen, *How Religion works*.
61 Lawson, "Psychological perspective on agency," 150.
62 Carruthers and Smith, *Theories of Theories of Mind*.
63 Dennett, *The Intentional Stance*.
64 Holland and Quinn, *Cultural Models in Language Thought*; Keesing, "Models, "folk" and "cultural": Paradigms regained?"; Lakoff and Johnson, *Metaphors We Live By*.

categorize social and biological phenomena according to a shared property and inexplicit fact (essence), this essence being the causal explanation of the identity of the category.[65] Essentialism is based on the assumption that visible similarities correspond to an underlying essence. It can offer an explanation for social interaction and therefore constitutes adaptive heuristics for understanding social interaction and permanence.[66] Employing essentialist understanding is pivotal for interaction and understanding social[67] as well as folk-biological categories.[68] This fits well with the suggestion that essentialism is an evolved, domain-specific adaptation based in folk-biological understanding.[69]

Essentialism in Religious Contexts

Essentialist understanding is fundamental to religious cognition, ritual and magic as well as in the conceptualization and identification of specially gifted actors and charismatic authorities, such as priests, shamans and gurus.[70] This may explain why humans are so attentive to phenomena that involve essentialism. Indeed, there may be a "charismatic proclivity" among people across cultures, or an impulsive propensity to attribute charismatic properties to certain individuals, regardless of whether this is accepted or rejected by local religious expertise and doctrine.[71] Religious essentialism pertains to the way in which charismatic people are identified and legitimized since such individuals are given (ritual) authority on basis of an inferred, hidden fact about them. Religious actions and attributes are thus both criteria for belonging to a special category (of charismatic actors) and considered as a manifestation of an essential property that characterize the special category.[72]

Essentialism and the Transfer of Substance in Pilgrimage

These overall tendencies in religious essentialism operate in several ways in pilgrimage. They are primarily involved in the identification of pilgrimage sites, pilgrimage actors (supernatural agents, charismatic persons, ritual experts and pilgrims) and the distribution and transportation of substances. This kind of identification employs perceptual cues, many of which were discussed previously (in connection to the category *tirtha yatra*), while the ethnographic picture regarding transferred substances will be elaborated below. Perceptual cues or pilgrims' "pilgrimage-characteristics" refer to a pilgrimage essence. Typically, miracles are identified at pilgrimage sites and these are explained through reference to the pilgrimage. Further, essentialism is evident above all in the transfer of substances between the pilgrim and pilgrimage site with its supernatural agents, but it is also evident between pilgrims and their socio-cultural background. Essentialist reasoning in religious contexts fills in the causal gaps when natural explanations for interactions with supernatural agents are vague or inadequate.[73] Here, essentialist thinking operates together with contagious association, as will be discussed in more detail below. Supernatural agents are considered to contain an essence that may be communicated to pilgrims and pilgrims, conversely, also contain an essence that can be communicated to supernatural agents. These points clarify that there is an intense transfer of substance and essence during pilgrimage, that this is connected to assumptions about agency and animacy and that all this is given metaphorical expression and religious evaluations.

65 Gelman,"Essentialism," 282-283.
66 Boyer, *Religion Explained*.
67 Medin and Ortony, "Psychological essentialism."
68 Atran, *Cognitive Foundations of Natural History*; Gelman and Hirschfeld, "How biological is essentialism?".
69 Atran, *Cognitive Foundations of Natural History.*
70 Boyer, *Cognitive Aspects of Religious Symbolism*; Boyer, *The Naturalness of Religious Ideas*.
71 Boyer, *The Naturalness of Religious Ideas*.
72 Sørensen, "Charisma, Tradition, and Ritual," 171.
73 Pyysiäinen, *Magic, Miracles, and Religion*, 104-105.

Transfer of Substances Embodying Sacred Values

Transferred substance is thus understood according to a religious framework. In the Hindu context I studied, religious value was attributed to substance when a connection with a supernatural agent was discerned. Ideas about substance-agency were often expressed metaphorically as sacred values and pilgrims expressed sacred purity with the concept of *pavitra*. The miraculous qualities of *pavitra* recall Anttonen's[74] description of how sacredness and purity are relational categories that are defined in relation to the distinction between inside and outside (pure and impure). The pilgrims I spoke to believed that the site and its supernatural agents were *pavitra, sui generis,* and this enabled other things to become *pavitra* through contact or association. The term *pavitra* was therefore used to describe what was special about a pilgrimage site and about the items one brought home from it. Substances brought back from a pilgrimage were also said to be *more* sacred than similar material deriving from local religious sites.

The notion of *pavitra* entails both essentialist understanding and metaphor. The concept of *pavitra* denotes a hidden quality that is attained by performing pilgrimage and this distinguishes the pilgrim from other people and relatives back home. The idea of a changed essence underpins pilgrims' conviction that they have undergone a transformation of identity. More will be said about "essence change" below. *Pavitra* also acted as a metaphor for moral superiority and purity, both in the sense of clinical hygiene (sterility) but also in an essentialist, non-physical, sense. The term *pavitra* was used alongside that of *asirbad,* an ambiguous concept referring loosely to god-given potential and blessing.[75] The ethereal nature of *pavitra* means that it may be communicated without direct contact, such as through ritual eye contact (*darshan*) but it may also take concrete form in various items used in ritual. Among those I met, blessings were one of the most treasured things to obtain while on pilgrimage. Most people felt that journeys that did not result in any blessings or sacred substances were pointless. As one pilgrim at Pasupatinath said: "if one can't bring home *prasad* from a *tirtha* then what is the point of going to the place?" The pilgrims also often said that the *pavitra* received from pilgrimages was superior to *pavitra* deriving from other contexts.

Varieties of Sacred Substance

Sacred substance such as blessings and *pavitra* were ascribed to items such as *prasad,* which is often synonymous with a blessing. *Prasad* consists of edible things such as dried fruits and candies, *batascha*. Pilgrims consumed *prasad* at the site and gave some to their family and friends when they came home. Blessings and *pavitra* were also ascribed to sacred water, *jal*, tapped from ponds, rivers, lakes or fountains at the pilgrimage site and *jal* became *pavitra* because of its association with the pilgrimage site. Pilgrims put a great deal of effort into bringing home *jal* tapped into various plastic bottles. As with the other items the people brought home from the pilgrimage site, *jal* was distributed among family and friends. Pilgrims at Mt. Kailash and Manasrovar often loaded their jeeps with four-litre cans of *jal* before returning home. They claimed that *jal* could be diluted endlessly but still preserve its properties and that it would preserve its freshness even if it was kept in bottles for fifty years. They also said that it had the power to make other things *pavitra* and pure. For instance, keeping *jal* indoors would purify the home. Most significantly, *jal* could be used to ensure a "good death"; dripping *jal* on the lips of a relative at the moment of death would purify their corpse. Other sacred substances could be anything from stones, pigment (*tika*) and thread (*dhaja*) to flowers (*mala*). Photos and souvenirs were also considered *pavitra,* as was the memory of experiencing *Bhagawan*. Muktinath's much appreciated fossils, *saligram*, were believed to be the remains of *Vishnu Narayan,* Vishnu in the form of a snake, and it was therefore collected or bought around the site.

74 Anttonen, "Rethinking the Sacred," 38.
75 Daniels, *Defilement and Purification*, 142.

Use and Ritualization of Sacred Substance

Generally, *pavitra* and blessings were believed to bring benefits, such as prosperity, protection and bio-moral cleansing. Pilgrims held that personal transformation and prestige could be earned from the *pavitra* they received while on their journey. *Pavitra* and blessings were believed to have soteriological functions, to atone for sin, *pap,* and to remove accumulated bio-moral influences of pollution. Pilgrims could thus earn *punya*, or religious merits. Importantly, sacred substances from pilgrimage sites were used in daily domestic ritual, *nitya puja*. As noted, sacred water also played an important role in mortuary rituals. Further, pilgrims collected *saligram* fossils in order to use them in ancestral rites, *shraddha*. Other uses of blessed substances were in healing and protective magic.[76]

Transferred Defilement and Evil Substance

Implicit in these descriptions is the fact that the transfer of blessed sacred substance from supernatural agents at pilgrim sites proceeds "hierarchically downwards" to pilgrims, their relatives, friends and home environment. Pilgrims often captured this in statements such as: "People believe that by eating *prasad* from Pasupatinath you have actually been to that place". However, another type of transfer consisted in a "hierarchically upward" flow of defiled and evil substances from pilgrims, their relatives, friends and home environment to supernatural agents at pilgrimage sites. Although anthropologist Catherine Daniels is concerned with Tibetan pilgrimage, she similarly notes that: *it is in the framework of defilement that the pilgrim is constituted as subject*.[77] Many pilgrims mentioned that they committed sinful acts, *pap,* either knowingly or unintentionally. Sins included unwittingly harming other sentient beings. They believed that inauspicious, impure bio-moral substances were accumulated through daily social interaction, and that these created defilement. Further, defilement arose from being close to, touching or sharing water and food with strangers and impure persons or even stepping on their shadows. Substance was transferred as a negatively valued gift, *dan,* and these represented bio-moral sin that could be destroyed by being "eaten" by supernatural agents. The cognition of substantial sin, impurity and bio-moral evil also presumes representations about agency or animacy, and evil seems to be a counterintuitive force with notions of agency and biological contagion being ascribed to people by way of moral evaluation.[78] It has been said that the symbolism of evil is based on notions of contagious defilement,[79] while others argue that folk concepts of evil may well be metaphors for impurity that lack deeper symbolic meanings.[80]

The pilgrims I met believed that defiling substances would accumulate in the body and it was necessary to expel them by using correct ritual procedure. This was said to avert misfortune, divine punishment, rebirth or banishment to hell, *Narka*. Undergoing hardship and austerity were also means to purify oneself of sin and defilement. Commonly, though, impurity was dealt with ritually b giving religious gifts, *dan,* to "worthy vessels" that could "digest" it. As Jonathan Perry points out in his North Indian studies,[81] it is important that impure offerings are not returned to the donor. Materials left at the pilgrimage site are "poisoned" by the donor's sin and bad karma.[82] When I visited the Dorm La pass at Mt. Kailash, the slopes were covered with old clothes, hair and other items left by Tibetan pilgrims. Similarly, Perry describes how the priests at Banaras had enormous stores of offerings made by pilgrims, such as furniture, umbrellas and kitchen utensils that were well past their prime.[83]

---

76 Gellner, *Monk, Householder, and Tantric Priest*, 140.
77 Daniels, *Defilement and Purification*, 77.
78 Pyysiäinen, *How Religion works*, 174.
79 Ricoeur, *The Symbolism of Evil*, 25-46.
80 Boyer, "Creation of the Sacred," 90.
81 Perry, "The *gift*, the Indian gift and the 'India Gift'."; Perry, *Death in Banaras,*
82 Van der Veer, *Gods on Earth*, 204.
83 Perry, "On the moral perils of exchange," 67-68.

A Broader Cultural and Cognitive Picture of Contagion and "Magical Thinking"

Experience of contagion and contamination relate to strategies for dealing with defilement and negative influences in everyday life.[84] The human body and self both influence the world around them at the same time as they in turn are vulnerable to external influences and this means that both the self and the social environment are threatened.[85] Caste societies and Hindu cultural environments are typical cases in which actors are exposed to harmful and defiling influences and substance. In particular, exposure to defilement and contamination occur when a person deviates from inter-caste and intra-caste behavioural norms.[86] Furthermore, members of high castes are usually obsessively concern about purity in relation to low castes and stigmatized, impure groups.[87] Threats of defilement may provoke constant efforts to secure protection.[88] Beliefs about impurity and contamination are also reinforced by religious and moral notions, as seen in the preoccupation with everyday purification rituals and the quotidian concern about contaminating substances in Hindu caste cultures. The majority of the pilgrims referred to in this paper were high-caste pilgrims who were very concerned about exposure to caste-related defilement and impurity.

Contagion and Magical Thinking

Beliefs in contagious contamination provoke caution and disgust that underpin the prevalence of ritualized behaviour.[89] The sense of urgency that often underlies the need to performing proper ritual action is usually explained in terms of the risk of incurring supernatural punishment.[90] This is also seen in "immanent justice" beliefs connected to contamination exposure.[91] These beliefs are about supernatural punishment or reward and they make people feel more or less vulnerable depending on how innocent or guilty they feel.[92] This all helps us understand why the notion of impurity is culturally related to evil or bio-moral sin and is judged negatively from both religious and moral standpoints. Indeed, negative religious and moral judgements connected to the experience of contamination and defilement may be a further cultural institutionalization that puts a selection pressure on these issues as special and moral. In the context of Hinduism, beliefs in contamination and immanent justice are conceptually strengthened by a tendency towards "ethicization"[93] or the tendency to conceive of every action as morally relevant and to render all issues regarding good, bad, right and wrong in terms of religious concepts: merits, sin and redemption.

The previous discussion highlights the explicitly "magical" features of substance transfer during pilgrimage. Daniels seems to be correct in noting that models of pilgrimage generally lack any discussion of magic and that such a discussion would enrich the picture of what is going on in pilgrimage.[94] This lack may be because of the Turners' influence on pilgrimage studies and their stress upon the fact that pilgrimage is not about magic.[95] However, this Frazerian legacy, which separates high religion from low magic, is questionable since there is a mutually reinforcing symbiosis between religion and magic.[96] Maintaining a distinction between magic and religion therefore simply imposes standards invented by religious experts and theologians.

84 Nemeroff and Rozin, "The Makings of the Magical Mind," 10.
85 Ibid.
86 Perry, *Death in Banaras*, 14.
87 Appadurai, "Gastro-politics in Hindu South Asia,"; Babb, *The Divine Hierarchy*; Bista, *Fatalism and Development*; Dumont, *Homo Hierarchicus*; Höfer, "The Caste Hierarchy and the State in Nepal,"
88 Perry, *Death in Banaras*, 114.
89 Boyer, *Religion Explained*, Boyer and Liénard, "Why Ritualized Behavior?"; Liénard and Boyer, "Whence Collective Rituals?"
90 Howe, "Risk, Ritual And Performance,"
91 Nemeroff and Rozin, "The Makings of the Magical Mind," 12.
92 Ibid.
93 Obeyesekere, "The Rebirth Eschatology and Its Transformations," 146-147.
94 Daniels, *Defilement and Purification*, 72.
95 Turner and Turner, *Image and Pilgrimage in Christian Culture*, 14.
96 Pyysiäinen, *Magic, Miracles, and Religion*, 90-112.

Two principles of magical practice were sketched by the classical theorists.[97] Firstly, there was contagious magic, which was said to, assume previous contact with a phenomena whose influence persisted despite physical distance and secondly, there was sympathetic magic, which was based upon imitation. In the former, assumptions about substance are crucial for connecting the source of the essential properties that are transmitted to the target. This means that magical thinking, instead of involving an exotic, pre-logical form of cognition, simply uses ordinary cognitive capacities for making causal connections.[98] Indeed, it has been shown that magical cognition is underpinned by pan-human cognitive and emotional systems.[99] More generally, and in keeping with cultural epidemiology theory, an emotional and cognitive system exerts a selective pressure on the cultural formation of magical practices in various traditions. These emotional and cognitive systems are also culturally channelled according to institutional context and this enhances the charismatic qualities of magic. Of relevance for my discussion is the fact that magic belongs to a broader social and cognitive sphere of contagious contamination in which the communication of positive or negative qualities can affect agents morally, psychologically and physiologically.[100] Positive contagion is evident in pilgrimage and rituals. As Siegal, Surian, Nemeroff and Peterson note: *This process can occur either through direct contact with a holy object or a person (e.g., the application of water from the Lourdes shrine) or through a mechanism of blessing*.[101] But negative contagion is also evident in the uneasiness pilgrims express about strangers, malicious or morally disreputable people, criminals and their belongings, as well as, leftovers, insects, dead and sick or decaying material.[102] Does this imply that the transfer of both positive and negative religious substances draws upon same cognitive principles of contagion and essentialism and how then might aversion-systems manifest in positive attraction? The cultural prevalence of positive contagion in items such as sweaters bearing "Clooney-cooties" reveals how people attribute value to real or imaginary prestigious actors. Henrich and Henrich argue that people have various contextual transmission biases and one is to identify prestigious high status individuals and imitate or relate to them.[103] One reason that positive contagion may occur in beliefs about religious substance beliefs is that these depend on prestige biases operating in cultural transmission and on assumptions that establishing a connection with high status actors will bring positive effects and prosperity.

There is no "dosage effect" in relation to exposure to contagious influence. In other words, the contact is believed to be positive or negative regardless of quantity.[104] Contamination and magic have a dual quality, producing positive or negative effects. A positive source strengthens the target through purification, healing and favour, while a negative source harms or defiles the target. In pilgrimage, this is seen in the transfer and discharge of negative substances to supernatural agents who are said to absorb or "digest" the impurity or sin. Pilgrimage also channels and transfers blessings and divine substances from supernatural agents to pilgrims.

Contagion, Magical Thinking and Pilgrimage

Generally, pilgrims' cognitive representations and practice of magic and substance transfer suggest a combination of the principles of *essence change*, *forward contagion* and *backward contagion,* as suggested by Sørensen.[105] In pilgrimages, actors transform themselves (essence changes) and take on a hidden essence through ritual procedures carried out along the journey and at the site. Characteristically, this entails the removal and transformation of an essence associated with defilement, evil, death pollution and

97 Frazer, *The Golden Bough*; Tylor, *Primitive culture*.
98 Boyer, "Causal understandings in cultural representations."
99 Nemeroff and Rozin, "The Makings of the Magical Mind," Pyysiäinen; *Magic, Miracles, and Religion*; Rozin and Nemeroff, "Magic and Superstition"; Sørensen, "'The Morphology and Function of Magic' Revisited."
100 Siegal, Surian, Nemeroff and Peterson, "Lies, Mistakes, and Blessings,"
101 Ibid., 326.
102 Nemeroff and Rozin, "The Makings of the Magical Mind," 7.
103 E.g. Henrich and Henrich, *Why Humans Cooperate*.
104 Nemeroff and Rozin, "The Makings of the Magical Mind," 14.
105 Sørensen, *A Cognitive Theory of Magic*, 96-114.

bio-moral sin in a dead person and his or her relatives. It also entails the pilgrim appropriating properties of the supernatural agent. Forward contagion occurs when essence is transferred through contact at the pilgrimage site and the blessings and active divine substances are then disseminated. For example, sacred water, *jal,* is used as an instrument in ancestor rites, *shraddha* or for cleansing those who have been exposed to death pollution. Backward contagion, or the notion that traces of a person may be harmful occurs on pilgrimages when clothes, photos and other items belonging to the pilgrims' deceased relatives are left at the site in order to enact an *essence change* or to benefit the dead.

Evolutionary psychology has offered reasons why concerns about contagion and contamination have emerged. Magical thinking and ritual behaviour seem to be phenomena that activate cognitive systems devoted to vigilance that once evolved to cope with ancestral hazards and reproductive threat.[106] Particularly, evolved emotional aversions, such as disgust, to expected contaminants were adapted to avoid pathogenic and poisonous sources, especially when handling animal cadavers[107] and corpses around human habitats.[108] Decisive in contagious contamination and more generally in magic are intuitions about a hidden property, and such an entity conditions the causal connection in beliefs in contagious and magical efficacy. These conditions seem to explain the prevalence of contagion beliefs in religion. Pyysiäinen suggests that interaction with supernatural agents is not based on notions of natural causation.[109] Instead, he claims that essentialism and folk-psychological notions of substance or force are used to establish causal connections, and this is another example of intuitions based on psychological essentialism as explained above. An alleged essence is crucial in interaction with counterintuitive agents since it offers the preconditions for causal connections that are taken for granted. That is, inasmuch as an essence is assumed to be the necessary condition that makes a supernatural agent an X, that X may be transmitted as far as that hidden essence may be communicated.

Nemeroff and Rozin note that people use immaterial models and materials of contagious essence and this means that various material or immaterial forms are held to be able to transfer substance.[110] Among the pilgrims I spoke to, supernatural agency and sacred powers were materialized and mediated in objects, materials and gifts from pilgrimage sites. But there was also a flow of non-material blessings, supernatural agency and sacred power that were communicated through emotional experience and *darshan,* or divine vision. The immaterial and unmediated reception of supernatural essence and substance occurs by getting close to the source. As some Indian pilgrims stated at the shores of Manasarovar, it was enough to see Mt. Kailash from a distance. But the distinctions between mediated and unmediated transfer often blur in cases of direct contact and touching at pilgrimage sites. Among Hindu pilgrims at Muktinath, Pasupatinath and Kailash and Manasarovar, seeing and touching supernatural items like fossils, blessed candy, stones, statues and temples enabled transfer. Generally, the immaterial or unmediated transfer of supernatural substance is common in pilgrimage cults around the world, such as cults of saintly relicts and their radiant blessings in Europe of the Middle Ages.[111] In these contexts, the absence of belief in the dosage effect meant that contact with the smallest piece of bone was as efficacious as contact with the whole saintly corpse. In Himalayan pilgrimage, the transfer of negative substance flows *from* the pilgrim and is discharged on the way to and at the site. Evil and accumulated sins and bio-moral impurities were contained and mediated by pilgrims, in the practice of *dan* or gifts and donations. Gifts and items such as old belongings, clothes, nails, teeth and hair, could be thrown away around the pilgrimage site. Indeed, some parts of the pilgrim route around Mt. Kailash looked like a waste disposal site because of the dumping of old shoes, jackets, pants and pieces of cloth, hair and teeth. These practices suggest "backward contamination",[112] or black magic, in which belongings or parts of the victim are employed to produce harmful effects. That is, during the pilgrimage, the discharge of negative essence was about avoiding alleged harmful effects to the self.

106 Boyer, "A Reductionistic Model of Distinct Modes of Religious Transmission"; Liénard and Boyer, "Whense Collective Rituals?"

107 Nemeroff and Rozin, "The Makings of the Magical Mind,", 10-15.

108 Boyer, *Religion Explained*, 210- 215.

109 Pyysiäinen, *Magic, Miracles, and Religion*, 104-105.

110 Nemoroff and Rozin, "The Makings of the Magical Mind," 17.

111 Finucane, *Miracles and Pilgrims*, 73.

112 Nemeroff and Rozin, "The Makings of the Magical Mind," 15.

Summary and Discussion

This article has dealt with substance transfer in Hindu Himalayan pilgrimage within the framework of cognitive theory and cultural epidemiology. I have noted the prevalence and importance of supernaturalism in pilgrimage and I have analyzed it using the model of counterintuition in supernatural agent concept, although other theoretical approaches from the cognitive and evolutionary science of religious phenomena are possible. Here, the importance of ritualization and ritual cognition in pilgrimage has been addressed. This relates to the observation that pilgrimages are generally journeys based on ritual interaction with culturally postulated supernatural (counterintuitive) agents. In this respect my Hindu Nepalese case is, arguably, a local example of cross-cultural themes of supernaturalism in pilgrimage. The field of the study of pilgrimage may certainly be enriched by including study of supernaturalism and ritualism in sacred journeys and other core features, such as the transfer of religious substance and their use as ritual instruments. This would be aided by using various research techniques, depending on the aim and scope of the enquiry: field experiments, in-depth interviews, surveys, participant observation.

This article has also argued a more general point that substance transfer is a distinctive feature of pilgrimage and that psychological essentialism, agency-cognition and contagious cognition in magical communications exert selective pressure in the evolution of beliefs related to pilgrimage and the transfer of substance. Pilgrimage varies cross-culturally and historically but there are shared and recurrent features. Concepts of supernatural agent and their counterintuitive underpinnings, particularly notions of miracles, permeate pilgrimages. These cults of counterintuitive supernatural agents in pilgrimage are ritual interactions based on ritual cognition. The exchange of impure and sacred substances relating to supernatural agents, ritualized interaction and ritual instruments in pilgrimage have been afforded little attention. Substance exchange is supported by cognitive systems that involve essentialism, agency, contagion and contamination in magical communications. From this perspective, pilgrimage in fact represents a major for exchange of magical and contagious substances of positive and negative quality. Pilgrimage establishes a connection between humans and supernatural agents through the transfer of various sacred items. Substances from pilgrimage sites are considered particularly sacred and blessed because they provided instruments that enable subsequent rituals to be carried out. The performance of pilgrimage is thus fundamental to the continuing, onward transfer of supernatural agency and the establishment of causal efficacy in subsequent rituals.

References

Anttonen, Veikko K. “Rethinking the Sacred: The Notion of “Human Body” and “Territory” in Conceptualizing Religion.” In *The sacred and its scholars: Comparative Methodologies for the Study of Primary Religious Data*, edited by Thomas A. Idinopulos and Edward A. Yonan, 36-64. Lieden: Brill, 1996.

Appadurai, Arjun. “Gastro-politics in Hindu South Asia.” *American Ethnologist,* 8:3 (1981), 494-511.

Atran, Scott. *Cognitive Foundations of Natural History: Towards an Anthropology of Science*. Cambridge: Cambridge University Press, 1990.

Atran, Scott. *In Gods We Trust: Evolutionary Landscape of Religion*. Oxford: University Press, 2002.

Atran, Scott and Ara Norenzayan. “Religions’s evolutionary landscape: Counterintuition, commitment, compassion, communion.” *Behavioral and Brain Sciences,* 27:6 (2004), 713-30.

Babb, Lawrence A. *The Divine Hierarchy: Popular Hinduism in Central India*. New York: Columbia University Press, 1975.

Barnes, Barry. “Social life as bootstrapped induction.” *Sociology,* 17:4 (1983), 524-445.

Barrett, Justin L. “Exploring the natural foundations of religion.” *Trends in Cognitive Sciences,* 4:1 (2000), 29-34.

Barrett, Justin L. “Do children experience God like adults do?” In *Religion in Mind: Cognitive Perspectives on Religious Beliefs, Ritual, and Experience*, edited by Jensine Andresen, 173-190. Cambridge: Cambridge University Press, 2001.

Barrett, Justin L. *Why would Anyone Believe in God*. Walnut Creek: Altamira Press, 2004.

Barrett, Justin L. and Melanie A. Nyhof. “Spreading non-natural concepts: The role of intuitive conceptual structures in memory and transmission of cultural materials.” *Journal of Cognition and Culture,* 1:1 (2001), 69-100.

Bell, Catherine M. *Ritual Theory, Ritual Practice.* New York: Oxford University Press, 1992.

Bhardwaj, Surinder M. *Hindu Places of pilgrimage in India: A Study in Cultural Geography.* Berkeley: University of California Press, 1973.

Bista, Dor B. *Fatalism and Development: Nepal's Struggle for Modernization*. Hyderabad: Orient Longman, 1991.
Boyer, Pascal. *Cognitive Aspects of Religious Symbolism*. Cambridge: Cambridge University Press, 1993.
Boyer, Pascal. *The Naturalness of Religious Ideas*. Berkeley: University of California Press, 1994.
Boyer, Pascal. "Causal understandings in cultural representations: cognitive constraints on inferences from cultural input." In *Causal Cognition: A Multidisciplinary Debate*, edited by Dan Sperber, David Premack and Ann J. Premack, 615-634. Oxford: Clarendon Press, 1995.
Boyer, Pascal. "Creation of the Sacred: A cognitivist view." *Method and Theory in the Study of Religion,* 10:1 (1998), 88-92.
Boyer, Pascal. *Religion Explained: The Evolutionary Origins of Religious Thought*. New York: Basic Books, 2001.
Boyer, Pascal. "A Reductionistic Model of Distinct Modes of Religious Transmission." In *Mind And Religion: Psychological and Cognitive Foundations of Religiosity*, edited by Harvey Whitehouse and Robert N. McCauley, 3-27. Walnut Creek: Altamira Press, 2005.
Boyer, Pascal and Charles Ramble. "Cognitive templates for religious concepts: cross-cultural evidence for recall of counterintuitive representations." *Cognitive Science,* 25 (2001): 535-564.
Boyer, Pascal and Pierre Liénard. "Why Ritualized Behavior? Precaution System and Action Parsing in Developmental, Pathological and Cultural Rituals." *Behavioral and Brain Sciences* 29:6 (2006), 1–19.
Carruthers, Peter and Peter K. Smith. *Theories of Theories of Mind*. Cambridge: University Press, 1996.
Carsten, Janet. *After Kinship*. Cambridge: University Press, 2004.
Coleman, Simon. "Do you believe in pilgrimage? Communitas, contestation and beyond." *Anthropological Theory*, 2:3 (2002), 355-368.
Daniel, Valentine E. *Fluid Signs: Being a Person the Tamil Way*. Berkeley: University of California Press, 1984.
Daniels, Catherine. *Defilement and Purification: Tibetan Buddhist Pilgrims at Bodhnath, Nepal*. D. Phil thesis. Magdalen College: University of Oxford, 1994.
Dennet, Daniel C. *The Intentional Stance*. Cambridge: MIT Press, 1987.
Dumont, Louis. *Homo Hierarchicus: The Caste System and Its Implications*. Chicago: Chicago University Press, 1980.
Eade, John and Michael J. Sallnow. *Contesting the Sacred: The Anthropology of Christian Pilgrimage*. London: Routledge, 1991.
Frazer, James. *The Golden Bough: A Study in Magic and Religion*. London: Macmillan, 1922 [1963].
Finucane, Ronald C. *Miracles and Pilgrims: Popular beliefs in Medieval England*. Houndmills: Macmillan Press, 1995.
Gell, Alfred. *Art and Agency: An Anthropological Theory*. Oxford: Clarendon Press, 1998.
Gellner, David N. *Monk, Householder, and Tantric Priest: Newar Buddhism and its hierarchy of Ritual.* New Delhi: Cambridge University Press,1992.
Gelman. Susan A. "Essentialism". In *The MIT Encyclopedia of the Cognitive Sciences*, edited by Robert A. Wilson and Frank C. Keil, 282-283. Cambridge: The Mit Press, 1999.
Gelman. Susan A. and Lawrence A. Hirschfeld. "How biological is essentialism?" in *Folkbiology*, edited by Douglas L. Medin and Scott Atran, 403-402. Cambridge: MIT Press, 1999.
Gonce, Lauren O., Upal, Afzal M., Slone, Jason D. and Tweney, Ryan D. "Role of context in recall of counterintuitive concept." *Journal of Cognition and Culture,* 6: 3-4 (2006), 521-547.
Guthrie, Stewart. *Faces in the Clouds: A New Theory of Religion*. New York: Oxford University Press, 1993.
Heintz, Christophe. "Institutions as Mechanisms of Cultural Evolution: Prospects of the Epidemiological Approach." *Biological Theory,* 2:3 (2007), 244-149.
Henrich, Natalie and Joseph Henrich. *Why Humans Cooperate. A Cultural And Evolutionary Explanation*. Oxford: Oxford University Press, 2007.
Holland, Dorothy and Naomi Quinn. *Cultural Models in Language Thought*. Cambridge: Cambridge University Press, 1987.
Howe, Leo. "Risk, Ritual And Performance." *Journal of the Royal Anthropological Institute,* 6:1 (2000), 63-79.
Hume, David. *Enquiry Concerning Human Understanding.* Oxford: Oxford University Press, 1979.
Humphrey, Caroline and James Laidlaw. *The Archetypal Actions of Ritual: A Theory of Ritual Illustrated by the Jain Rite of Worship.* Oxford: Clarendon Press, 1994.
Höfer, Andras. "The Caste Hierarchy and the State in Nepal: A Study of the Muluki Ain of 1854." *Khumbu Himal* 13:2 (1979), 25-240. Innsbruck: Universitätsverlag Wagner.
Keesing, Roger. "Models, "folk" and "cultural": Paradigms regained?" In *Cultural Models in Language Thought*, edited by Dorothy Holland and Naomi Quinn, 368-393. Cambridge: Cambridge University Press, 1987.
Lakoff, George and Mark Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.
Lawson, Thomas E. "Psychological perspective on agency." In *Religion in Mind: Cognitive Perspectives on Religious Beliefs, Ritual, and Experience*, edited by Jensine Andresen, 141-172. Cambridge: Cambridge University Press, 2001.
Lawson, Thomas E. and Robert N. McCauley. *Rethinking Religion: Connecting Culture and Cognition*. Cambridge: Cambridge University Press, 1990.
Leslie, Alan M. "A Theory of Agency." In *Causal Cognition: A Multidisciplinary Debate*, edited by Dan Sperber, David Premack and Ann J. Premack, 121-141. Oxford: Clarendon Press, 1995.
Liénard, Pierre and Pascal Boyer. "Whence Collective Rituals? A Cultural Selection Model of Ritualized Behavior." *American Anthropologist,* 108:4 (2006) 814-827.

Malley, Brian and Justin Barrett. "Can ritual form be predicted from religious beliefs? A test of the Lawson-McCauley Hypotheses." *Journal of Ritual Studies,* 17:2 (2003), 1-14.
Mauss, Marcel. *The Gift: Forms and functions of exchange in archaic societies*. London: Routledge & Kegan Paul, 1970.
Mauss, Marcel. *A General Theory of Magic*. London: Routledge, 1972.
McCauley, Robert N. and Thomas E. Lawson. "Who owns "Culture"?" *Method and Theory in the Study of Religion,* 8:2 (1996), 171-190.
McCauley, Robert N. and Thomas E. Lawson. *Bringing Ritual to Mind: Psychological Foundations of Cultural Forms*. Cambridge: University Press, 2002.
Medin, Douglas and Andrew Ortony. "Psychological essentialism." In *Similarity and analogical reasoning*, edited by Stella Vosniadou and Andrew Ortony, 183-195. New York: Cambridge University Press, 1989.
Messerschmidt, Donald A. and Jyoti Sharma. "Hindu Pilgrimage in the Nepal Himalayas." *Current Anthropology* 22:5 (1981), 571-72.
Michaels, Axel. *Hinduism Past and Present*. Princeton: Princeton University Press, 2004.
Morinis, Alen E. *Pilgrimage in the Hindu Tradition: A Case Study of West Bengal*. London, Oxford University Press, 1984.
Morinis, Alen E. *Sacred Journeys: The Anthropology of Pilgrimage*. Westport: Greenwood Press, 1992.
Nemoroff, Carol and Paul Rozin. "The Makings of the Magical Mind: The Nature and Function of Sympathetic Magical Thinking." In *Imagining the Impossible: Magical, Scientific, and Religious Thinking in Children*, edited by Karl S. Rosengren, Carl N. Johnson and Paul L. Harris, 1-33. Cambridge: Cambridge University Press, 2000.
Nickell, Joe. *Looking for a Miracle: Weeping, Icons, Relics, Stigmata, Visions & Healing Cures*. New York: Prometheus Books, 1993.
Nielbo, Kristoffer L., Uffe Schjoedt and Jesper Sørensen. "Hierarchical Organization of Segmentation in Non-Functional Action Sequences." *Journal for the Cognitive Science of Religion,* 1:1 (2013), 71- 97.
Nordin, Andreas. "Ritual agency, substance transfer and the making of supernatural immediacy in pilgrim journeys." *Journal of Cognition and Culture,* 9:3 (2009), 195-223.
Obeyesekere, Grananath, "The Rebirth Eschatology and Its Transformations: A Contribution to the Sociology of Early Buddhism." In *Karma and Rebirth in Classical Indian Traditions*, edited by Wendy D. O'Flahery, 137-164. Delhi: Motilal, 1980.
Osterreith, Ann. "Pilgrimage, Travel and Existential Quest." In *Sacred Places, Sacred Spaces: The Geography of Pilgrimage*, edited by Robert H. Stoddard and Alen Morinis, 25-39. Louisiana: Geoscience Publications, 1997.
Perry, Jonathan. "The *gift*, the Indian gift and the 'India Gift'." *Man,* 21:3 (1986), 453-473.
Perry, Jonathan. "On the moral perils of exchange." In *Money and the morality of exchange*, edited by Jonathan Perry and Maurice Bloch, 64-93. New York: Cambridge University Press, 1989.
Perry, Jonathan. *Death in Banaras*. Cambridge: Cambridge University Press, 1994.
Pfaffenberger, Bryan. "The Kataragama Pilgrimage: Hindu-Buddhist Interaction and Its Significance in Sri Lanka's Polyethnic Social System." *Journal of Asian Studies,* 38:2 (1979), 253-270.
Porubanova, Michaela, Daniel J. Shaw, Ryan McKay, and Dimitris Xygalatas. "Memory for Expectation-Violating Concepts: The Effects of Agents and Cultural Familiarity." *Plos One,* 9: (2014), 1-7.
Pyysiäinen, Ilkka. *How Religion works: Towards a New Cognitive Science of Religion*. Leiden: Brill, 2001.
Pyysiäinen, Ilkka. *Magic, Miracles, and Religion: A Scientist´s perspective*. Walnut Creek: Altamira Press, 2004.
Reader, Ian and Tony Walter. *Pilgrimage in popular culture*. Basingstoke: Macmillan, 1993.
Ricoeur, Paul. *The Symbolism of Evil*. Boston: Beacon Press, 1969.
Rozin, Paul and Carol Nemoroff. "Magic and Superstition." In *The MIT Encyclopedia of the Cognitive Sciences*, edited by Robert A. Wilson and Frank C. Keil, 503-504. Cambridge: The Mit Press, 1999.
Sallnow, Michael J. "Communitas reconsidered: the sociology of Andean pilgrimage." *Man,* 16:2 (1981), 163-182.
Shanafelt, Robert. "Magic, Miracle, and Marvels in Anthropology." *Ethnos,* 69:3 (2004), 317-340.
Shulman, David D. "Kingship and prestation in south Indian myth and epic." *Asian and African Studies,* 19: (1985), 93-117.
Siegal, Michael, Luca Surian, Carol J. Nemeroff and Candida C. Peterson (2001). "Lies, Mistakes, and Blessings: Defining and Characteristic Features in Conceptual Development." *Journal of Cognition and Culture,* 1:4 (2001), 323-339.
Sperber, Dan. *Explaining Culture: A naturalistic approach*. Oxford, Blackwell Publishers, 1996.
Sperber, Dan. "Why a deep understanding of cultural evolution is incompatible with shallow psychology," In *Roots of human sociality: Culture, cognition and interaction,* edited by Nicholas J Enfield and Stephen C Levinson, 413-449. Oxford: Berg, 2006.
Sperber, Dan. "A naturalistic ontology for mechanistic explanations in the social sciences." In *Analytical sociology and social mechanisms*, edited by Pierre Demeulenaere, 64-77, Cambridge: Cambridge University Press, 2011.
Sumption, Jonathan. *Pilgrimage: An image of Mediaeval Religion*. London: Faber & Faber, 1975.
Sørensen, Jesper. "'The Morphology and Function of Magic' Revisited." In *Current Approaches in the Cognitive Science of Religion*, edited by Ilkka Pyysiäinen and Veikko Antonnen, 177-202. London: Continuum, 2002.
Sørensen, Jesper. "Religion in Mind: A Review Article of the Cognitive Science of Religion." *Numen,* 52:4 (2005), 465-494.

Sørensen, Jesper. " Charisma, Tradition, and Ritual: A Cognitive Approach to Magical Agency." In *Mind And Religion: Psychological and Cognitive Foundations of Religiosity*, edited by Harvey Whitehouse and Robert N. McCauley, 167-186. Walnut Creek: Altamira Press, 2005.

Sørensen, Jesper. *A Cognitive Theory of Magic*. Lanham: Altamira Press, 2007.

Turnbull, Colin. "Postscript: Anthropology as Pilgrimage, Anthropologist as Pilgrim." In *Sacred Journeys: The Anthropology of Pilgrimage*, edited by Alen E. Morinis, 257-274, Westport: Greenwood Press, 1992.

Turner, Victor and Edith Turner. *Image and Pilgrimage in Christian Culture: Anthropological Perspectives*. New York: Columbia University Press, 1978.

Tylor, Edward B. *Primitive culture: researches into the development of mythology, philosophy, religion, language, art and custom*. London: John Murray, 1903.

van der Veer, Peter. *Gods on Earth: The Management of Religious Experience and Identity in a North Indian Pilgrimage Centre*. London: The Athlone Press, 1988.

Wolf, Eric. "The Virgin of Guadalupe: a Mexican national symbol." *Journal of American Folklore,* 71:279 (1958), 34-9.

Upal, Afzal M. "An alternative View of the Minimal Counterintuitiveness Effect." *Journal of Cognitive System Research,* 11:2 (2010), 194-203.

Yamba, Christian B. *Permanent Pilgrims: An Anthropological Study of the Role of Pilgrimage in the Lives of West African Muslims in Sudan*. Stockholm: Akademitryck, 1990.