

Self-Ascription Without Qualia: A Case-Study

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[Commentary on Alvin Goldman, "The Psychology of Folk Psychology", Behavioral and Brain Sciences, 1993.]

In Section 5 of his interesting article, Goldman suggests that the consideration of imaginary cases can be valuable in the analysis of our psychological concepts. In particular, he argues that we can imagine a system that is isomorphic to us under any functional description, but which lacks qualitative mental states, such as pains and color sensations. Whether or not such a being is empirically possible, it certainly seems to be logically possible, or conceptually coherent. Goldman argues from this possibility to the conclusion that our concepts of qualitative mental states cannot be analyzed entirely in functional terms.

This thought-experimental methodology seems sound to me, and I agree with Goldman on the logical possibility of these absent-qualia cases (although many functionalists would not; e.g. Armstrong 1968, Dennett 1991, Shoemaker 1975). However, I think that this methodology can be taken further, yielding conclusions that oppose those that Goldman draws elsewhere in the article.

Consider: if it is logically possible that my functional isomorph might lack qualia entirely, it seems equally logically possible that there could be a qualia-free physical replica of me. We have already seen that there is no conceptual entailment relation from the functional properties of a system to the qualitative properties; it seems even clearer that there is no entailment relation from the non-functional implementational details to qualia. (What conceptual entailment could neurophysiological detail possibly provide that silicon, or even Chinese nations, could not?) So let's consider Zombie Dave, my qualia-free physical replica. Zombie Dave is almost certainly an empirical impossibility, but he is a conceptual possibility.

First, let us ask: Does Zombie Dave have beliefs? It seems to me that he does. If we ask him where his car is, he'll tell us that it's in the driveway. If we ask him whether he likes basketball, he tells us that he does. If we tell him that there's a basketball game starting across town in half an hour, he'll immediately head for the driveway, an action that seems to be best explained by the hypothesis that he wants to go to the basketball game, believes that his car will get him there, and believes that his car is in the driveway. All of the usual principles of psychological explanation sanction attributing beliefs to Zombie Dave; explaining his action without the attribution of beliefs would be a fearsomely complex task. (It might be objected that Zombie Dave lacks the external grounding required for belief contents, but we can avoid this problem by stipulating that his environment and history are physically indistinguishable from mine.)

Goldman argues in Section 8 that beliefs, like perceptual states, are typically accompanied by qualia; but much more would be required to conclude that qualia are essential to a state's being a belief. (Searle (1990) has given an argument in this direction, but it does not seem to have been widely accepted.) Zombie Dave's beliefs may not be colored by the usual phenomenological tinges, but it seems reasonable to say that they are nevertheless beliefs. Beliefs, unlike qualia, seem to be characterized primarily by the role that they play in the mind's causal economy. (To illustrate the difference, note that it seems coherent to be an epiphenomenalist about qualia, whether or not one finds the position plausible; but there seems to be something conceptually wrong with the idea that beliefs could be epiphenomenal.) So qualia-free believers like Zombie Dave are quite conceptually coherent, and qualia don't seem to be an essential part of our concept of belief.

Even if one resists the idea that Zombie Dave has beliefs, we can still use him to show that qualia cannot be the primary mechanism in the self-ascription of our mental states. For Zombie Dave ascribes precisely the same mental states to himself as I do! By some process or other, he'll tell you that he thinks that Bob Dylan makes good music. How can this

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History of Acadiana

<Billed>Lafayette, the heart of Acadiana and the unofficial capital of Cajun Country, with its gleaming present belies an exciting and captivating past. Lafayette is a metropolis which displays an extraordinary mixture of tradition and progressiveness. Having a rich French heritage blended with Spanish, American, Indian and African influences, the city represents a colorful combination of lifestyles.

Lafayette lies 15 miles west of the Atchafalaya Basin and 35 miles north of the Gulf of Mexico and exhibits the subtropical climate typical of South Louisiana. The city is situated in a geographical area of forests and prairies interlaced with bayous, swamps and marshes.

The first known inhabitants, the Attakapas Indians, were known to have populated the Lafayette area in the 1700s. The tribe was very powerful and feared by other Indians. The Attakapas dominated until three opposing tribes, the Opelousas, Alabamons and Choctaws, united in battle and conquered their opponent. Legend reports that the Attakapas Indians supposedly ate their prisoners of war.

The exact date when the first European settlers reached the Lafayette area is not known. Early historians report that a few trappers, traders and ranchers were present in the region prior to the Spanish occupation of 1766. A census conducted in 1769 by Spanish Governor O'Reilly indicated a population of 409 for the area.

The historical event of the 18th century which had the greatest cultural impact on Lafayette was the migration of the Acadians from French Canada. Approximately 18,000 French-speaking Catholic inhabitants settled Acadie -now Nova Scotia- in 1605 and lived there under French rule until 1713 when the region went into English hands.

Faced with the refusal of the Acadians to pledge allegiance to the British crown and Anglican Church, English Governor Charles Lawrence took action. Acting on his own and not under orders from the crown as he professed, he gave the orders that led to the expulsion of the Acadians in 1755, also known as -Le Grand Derangement-.

Families were separated and as the Acadians went to sea under dreadful conditions, more than half lost their lives. The exiles ended up in many locations and in 1784, the King of Spain consented to allow them to settle in South Louisiana. The Acadians then joined a scattering of their people who had arrived as early as 1765 from the Caribbean and the East Coast.

Some exiles settled at various locations along the Eastern Seaboard of the United States, but most followed the path which led to New Orleans. There they received a hostile greeting from the French aristocracy so they headed west into unsettled territory. They settled along the bayous of south central and south western Louisiana where they could live according to their own beliefs and customs.

The first settlement, known as Petit Manchac, was established by the English who used it during the Revolutionary War as an outpost. It constituted a small trading post on the banks of the Vermilion River where the Old Spanish Trail crossed the bayou -about where today's Pinhook Bridge is located-. The village also came to be known as Pin Hook, a name about which many stories of origin exist.

The years of 1765-1785 marked the great immigration period of the Acadians and many land grants were given by the French and Spanish governments. As a result of the Treaty of Fontainebleau in 1762, Louisiana went from French to Spanish rule. The Spanish actually took possession in 1766. The French Revolution of 1789 had its effect on Lafayette as many French Loyalists fled to Louisiana to settle. With the Louisiana Purchase of 1803, Louisiana then became possession of the United States.

More specifically for Lafayette, in 1821, Jean Mouton -an Acadian- donated land for the construction of a Catholic church. On May 15, 1822 Bishop Duborg created the church parish of St. John the Evangelist of Vermilion which encompassed the area from Mouton's plantation south to the Gulf of Mexico and west to the Sabine River.

A settlement grew around the church and on January 17, 1823, the Louisiana Legislature created Lafayette Parish from the western portion of what was St. Martin Parish. Mouton made a second land donation to the new community, this time for a courthouse. The town of Vermilionville became the new parish's seat. The settlement grew and the town of Vermilionville was renamed Lafayette in 1844 in honor of the French Marquis de Lafayette.

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Attractions - Lafayette Area

Acadian Cultural Center
Jean Lafitte National Historical Park
501 Fisher Rd, Lafayette 70508
318-232-0789
Fax: 318-232-5740

Acadian Village
200 Greenleaf Dr, Lafayette 70506
800-962-9133

Acadiana Park Nature Station and Trail
E Alexander Dr, Lafayette
318-291-8448 or 318-291-5544

Alexandre Mouton House
Lafayette Museum
1122 Lafayette St, Lafayette 70501
318-234-2208

Artists Alliance Gallery
Old Hardware Store
125 W Vermilion St, Lafayette 70501
318-233-7518

Atchafalaya Experience
338 N Sterling St, Lafayette 70501
<http://members.aol.com.boisdchene/bois.htm>
E-mail: boisdchene@aol.com

Cajun Country Store
401 Cypress St, Lafayette 70501
318-233-7977
Fax: 318-233-0764

Children's Museum of Acadiana
201 E Congress St, Lafayette 70501
318-232-8500

Fax: 318-232-8167

Chretien Point Plantation
665 Chretien Point Rd, Sunset 70584
318-662-5876, 800-880-7050
Fax: 318-662-5876

Cypress Lake
University of Southwestern Louisiana

Evangeline Downs Racetrack
3620 NW Evangeline Thrwy, Carencro 70520
318-896-RACE
Fax: 318-896-5445
<http://www.evangelinedowns.com>
E-mail: info@evangelinedowns.com

Floyd Sonnier's Beau Cajun Gallery
1012 St Mary St, Scott 70583
318-237-7104
Fax: 318-237-6311

Girard Park
Next to USL, Lafayette

Henry Wadsworth Longfellow Monument
Saloom Office Park off Kaliste Saloom
100 Asma Blvd, Lafayette

Kart Ranch, Inc.
508 Youngsville Hwy, Lafayette 70508
318-837-5278
Fax: 318-837-4078

La Neuville Driving Range
306 La Neuville Rd, Youngsville 70592
318-837-5369

Lafayette Art Gallery
412 Travis St, Lafayette 70503
318-269-0363
Fax: 318-269-9629

Lafayette City Park Golf Course
1121 Mudd Ave, Lafayette 70501
318-291-5557
Fax: 318-291-5584
E-mail: mikeguidry@worldnet.att.net

Lafayette Natural History Museum and Planetarium
637 Girard Park Dr 70503
318-291-5544
Fax: 318-291-5464

Louisiana Hockeyplex
3607 NW Evangeline Thrwy, Carencro 70520
318-896-2042
Fax: 318-235-1549

<http://www.lahockeyplex.com>

Louisiana Museum of Military History
3000 NE Evangeline, Lafayette 70507
318-235-4322

The Pier
1601 W Pinhook Rd, Lafayette 70508
318-233-8640, 800-803-9257
Fax: 318-233-8266

Q-Zar
4305 Johnston St, Lafayette 70503
318-993-0044
Fax: 318-993-0420

Rok Haus
109 Grand Ave, Lafayette 70503
318-981-8116

St John Cathedral Museum and Gift Shop
515 Cathedral St, Lafayette 70502
318-232-1322
Fax: 318-232-1379

St Peter's Catholic Church
102 Church St, Carencro, 70520
318-896-9408

Shagwood Manor
1414 E Bayou Pkwy, Lafayette 70508
318-233-4570 or 318-984-1647

University Art Museum
Fletcher Hall, USL Campus, Lafayette
318-482-5326
Fax: 318-482-5907

Vermilionville
1600 Surrey St, Lafayette 70508
318-233-4077, 800-99-BAYOU
Fax: 318-233-1694
<http://www.vermilionville.org>

Zoo of Acadiana
116 Lakeview Dr, Broussard, 70518
318-837-4325
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Cajun Culture

<Billede>Experiencing the Cajun culture is like no other. The Acadians of today are a thrifty, hard-working, fun-loving, devout religious folk. They work and play with equal enthusiasm.

The word Cajun began in 19th century Acadie -now Nova Scotia- when the Acadians began to arrive. The French of noble ancestry would say, -les Acadiens-, while some referred to the Acadians as, -le 'Cadiens-, dropping the -A-. Later came the Americans who could not pronounce -Acadien- or -'Cadien-, so the word, -Cajun- was born.

The Cajun's pleasure-loving nature expresses itself in the community festivals, dancing and food that are integral parts of bayou life. Cajuns are known for their -joie de vivre/joy of living-, and to add excitement to their food they experiment with herbs, spices and ingredients to create some of the most flavorful dishes that people throughout North America now enjoy.

One of the traditional favorite Cajun pastimes is an old- fashioned crawfish boil. When the sacred -mud bugs- or -crawdads- go into the pot a breath of excitement fills the air. Before the great feast of the boiled crawfish, potatoes, onions and corn, youngsters make a mad dash for the crawfish tub poking the live crawfish with sticks while other family members participate in crawfish races.

Boiling crawfish is not the only way to enjoy the crustaceans. When crawfish go into the pot a number of delicious dishes result because there are almost as many ways to cook crawfish as there are swamps, ponds and ditches in which to catch them. Crawfish are served up in gumbo, bisque, etouffee, jambalaya, pies or patties. When the Cajuns are not eating crawfish, they enjoy other world famous cuisine of Louisiana such as oysters, shrimp, boudin, pralines, gumbo and red beans and rice.

<Billede>What better way to experience Cajun food than at a festival... Any time is festival time in Cajun Country. Towns and villages throughout Acadiana celebrate every season with their special blend of music, food and the colorful Cajun heritage. Most festivals feature live music of all sorts, contests, native crafts and food and, of course, dancing.

Cajun music is also distinctive. It can be lively or melancholy, and sometimes both at the same time. The main reason why many attend festivals is for the unique Cajun music. Cajun music, once deemed as -nothing but chank-a-chank- has infiltrated radio, television and classrooms and is becoming world famous for its unique sounds of instruments like accordions, fiddles and triangles.

One of the largest festivals is our world-famous Mardi Gras. Celebrate an old-fashioned Mardi Gras at the Courir du Mardi Gras -Mardi Gras Run-, one of the local traditions that makes Mardi Gras in Cajun Country truly unique. The spectacle celebrated in small towns and villages in Acadiana is a favorite of visitors interested in off-the-beaten-path experiences. With its roots firmly in the medieval tradition of ceremonial begging, bands of masked and costumed horseback and wagon riders led by the unmasked -Le Capitaine- roam the countryside -begging- for ingredients for their community gumbo. The day's festivities end with a fais-do-do and, of course, lots of savory gumbo.

In Cajun Country, a week hardly goes by without chants of praise to crawfish, rice, alligators, cotton, boudin, yams, gumbo and andouille, all the necessities of bayou life. Within the triangle of Acadiana's 22 parishes, you'll experience the "joie de vivre" of the Cajun lifestyle. Whether in food, music or fun, the Cajun tradition continues to live on in the hearts of Cajuns and visitors alike.

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Atchafalaya Basin Swamp

<Billede>Imagine floating gently through a maze of darkness and being enveloped by the mysterious and murky water of an endless, winding watercourse of rivers and lakes.

The Atchafalaya Basin comprises an area of 860,000 acres of swamps, lakes and water prairies. Cutting a 15-mile-wide path across South Louisiana, it is the largest and last great river-basin swamp. But to fully comprehend and appreciate the magnificence of the Atchafalaya, you must journey back to when the Atchafalaya was as nomadic as its people.

The Atchafalaya River Basin first began forming around 900 A.D. when the mighty Mississippi River abandoned its easternmost channel and flowed in that direction for approximately 1,000 years to occupy the present course of Bayou Lafourche. Over time, natural levees formed along the river to trap yearly overflow thus forming a lake within the middle bounded by a densely forested area.

<Billede>Atchafalaya was a lifeline for its inhabitants beginning with the early arrival of the Acadians, more commonly known as the Cajuns.- Exiled in 1755 from their home in Nova Scotia, Canada, this French-speaking tribe wandered aimlessly along the Atlantic Seaboard for years seeking refuge as well as loved ones lost to them through the exile known as -Le Grand Derangement.- After years of searching, some of the survivors established roots and a heritage in the rich, fertile soils of the Atchafalaya Basin.

After their abusive exile and vagrant journey to Acadiana, the Cajuns did not mingle, but remained as a close knit community remaining shut off from a society entering into industrialization. In what was once a virtually isolated area where the way of life was ruled by custom and tradition, industrialized man conquered and disrupted this isolation.

In the 1920's, oil and gas was discovered in the basin producing an influx of newcomers. With the completion of an 18-mile-long bridge on Interstate 10 in 1973, Acadiana was finally linked with the rest of the state.

The Great Flood of 1927 drastically changed life in the Basin from Simmesport in the upper Basin to Morgan City in the South. The flood triggered a mass exodus from communities like Bayou Chene, Sherburne, Atchafalaya and Pelba where people once made their living from the swamp.

In an effort to control Mother Nature's plans of shortening the route of the Mississippi River to the Gulf of Mexico via the Atchafalaya River, the U.S. Army Corps of Engineers erected huge flood gates at the intersection of the two rivers. The five-mile-wide West Atchafalaya Floodway was created by the Corps of Engineers as an outlet for the raging water of the Red, Atchafalaya and Mississippi rivers during the next great flood.

<Billede>The An abundance of wildlife can be found in the Basin. At least 300 species of birds including thousands of wintering ducks and coots and the largest wintering population of American woodcock in North America. Over 50,000 egrets, ibises and herons nest in the Floodway. The largest nesting concentration of bald eagles in the south central United States is found in the Atchafalaya Basin. The American alligator along with 65 other species of reptiles and amphibians can also be found. Over 90 species of fish, crawfish, crabs and shrimp support an extremely active seafood industry. Based on a survey conducted by the Corps of Engineers and the Louisiana Department of Wildlife and Fisheries, the value of the Floodway's fish, wildlife and related recreational resources has been estimated at approximately \$97 million annually.

With each new season, the Atchafalaya Swamp changes its face. Winter blows in isolation and despair as the frigid morning fog rolls across the basin swamp. Spring signals a rebirth as lush greens and vibrant purples reach forward to embrace its new season. Sunrise in the basin awakens its creatures as snakes slither, and alligators and turtles bask in the sunlight. As the sun descends on another day, an eerie silence hangs on until the haunting cry of the egret penetrates the morning.

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Who are the Creoles...

For many centuries, the world Creole has had as many as 30 known definitions. From the Portugese word crioulo, meaning homegrown, the term originally was applied to Africans born in the New World. Today, Creole has come to mean the language and folk culture that was native to the southern part of Louisiana, where African, French and Spanish influence were most deeply rooted historically and culturally.

Louisiana's Creole culture is renowned for unique traditions as exemplified by its music, food, folklore and folkways, visual arts and crafts.

The Lafayette area celebrates its Creole culture at festivals and fairs such as the Southwest Louisiana Zydeco Music Festival in Plaisance, the Zydeco Extravaganza in Lafayette, the Creole Crawfish Festival in Breaux Bridge and numerous Creole Mardi Gras celebrations throughout the region.

Sample authentic cuisine at Lafayette's Creole restaurants. Dance to Zydeco music at area night spots and dancehalls. Savor Lafayette's -joie de vivre- through the wonderfully unique Creole legacy.

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Report on Voodoo

Vodun, also commonly called voodoo or, more derisively, hoodoo, originated and is primarily practiced in the Caribbean country of Haiti. The foundations for vodun are the West African Yoruba religions, carried to Haiti by African slaves brought from West Africa. The word "vodun" derives from vodu, meaning "spirit" or "deity" in the African language of Yoruban.

Practitioners of vodun come together in a community, called a *société*. The *société* centers around a hounfort, where rituals are performed, and a primary priest or priestess, called the houngan and mambo, respectively. Vodun *sociétés* are very close-knit and provide a central organizing structure to small communities in Haiti.

In Haiti, the African Yoruban beliefs mingled with the Catholic beliefs of the French settlers to form the syncretic religion, vodun. In reality, vodun is a product of the slave trade. Whites forbade slaves to practice their native religions on pains of torture and death, and they baptized slaves as Catholics. Catholicism became superimposed on native rites and beliefs, which were still practiced in secret. Tribal deities, or loa, took on the forms of Catholic saints. Worshipers saw the addition of the saints as an enhancement of their faith, and incorporated Catholic statues, candles and holy relics into their rituals.

Vodun is marked primarily by a belief in the loa, the gods that form the vodun pantheon. Devotees of vodun believe that all things serve the loa and so by definition are expressions and extensions of deity. The loa are very active in the world and often literally "possess" devotees during ritual. Rituals are practiced primarily to make offerings to, or "feed," the loa and to entreat the loa for aid or fortune.

Secret Societies

Secret societies use the name of vodun to cloak their malevolent activities, but are not really considered to be vodun by legitimate practitioners of the religion. Instead, their acts cause them to be ostracized by vodun *sociétés*. Most secret societies are of the bizango type, but there are also secret societies called Cochon Gris. Members of secret societies cloak themselves in red or white to hide their identities. They are known for cannibalism and for making human sacrifices, a practice that is firmly rejected by legitimate vodun practitioners. Sometimes secret-society members are possessed or mounted by totem animal protectors, the baka.

Evil Spirits

Vodun beliefs account for evil spirits who roam at night. They possess members of the bizango, often taking the forms of animals. These are called baka. One common form of baka is the loup garou, or werewolf. Baka also appear as leopardmen, serpentmen, elephantmen, pythonmen, owlmen, crocodilemen or lionmen. They can also transform magically into birds of prey that fly invisibly through the air, leaving only a luminous trail and the odor of sulfur to mark where they have been. These birds of prey pounce on those they wish to capture and carry them off.

Another type of evil force is a "bogyman" who creates vile acts. In vodun, the bogyman is called tonton macoute, after Duvalier's secret police.

Other Elements of Black Magic

Bokors are houngans who perform black magic and are called "those who serve the loa with both hands." Their black-magic activities include the practice of creating zombis, as well as calling the dead to inflict harm upon others. They can also create talismans called ouangas that house baka and are used for evil purposes.

Certain Petro loa are partners in black magic and will perform harmful services in exchange for a great sacrifice of some sort. This pact between the loa and a person involving malevolent magic is called an angajan.

The ti-bon-ange must also be dealt with. The ti-bon-ange hovers around the body for a period of nine days, at which point a ritual called nine night is performed to ensure that the ti-bon-ange stays in the grave. If this is not done, the ti-bon-ange may also wander the earth and bring misfortune on others.

Some sects of vodun believe that everyone has evil in them. While the soul, called in this case the duppy, is in the body, it is controlled by the heart and brain, and a person will not abandon himself or herself to evil. Once the duppy is

released in death, however, the duppy no longer has this restraint and is capable of terrible acts. Nine night also ensures that this evil that resides in all people stays in the grave with the body.

Alternatively, the houngan can ritually separate the ti-bon-ange from the flesh and release it to live in dark waters for a year and a day. After this time, the family ritually raises the soul, now called an esprit. The esprit is placed in a special govi, where it is fed and treated like a loa, or divine being.

The Parts of the Vodun Soul

To understand the vodun conception of death, you first have to understand the complex set of beliefs about the human soul. According to vodun belief, a human being is made up of five basic components:

- the corps cadavre, or mortal flesh;
- the n'âme, or spirit of the flesh;
- the z'étoile, or star of destiny;
- the gros-bon-ange;
- and the ti-bon-ange, the two parts of the soul.

The physical or mortal parts of a human being are the corps cadavre and the n'âme. The corps cadavre is the body that decays after death. The n'âme is the spirit that allows the body to function while alive and passes as energy into the soil after death.

The z'étoile decides a person's destiny and resides in the heavens, apart from the body. It is not of great importance to vodun belief.

The most important components of humans are the two parts of the soul, the ti-bon-ange and the gros-bon-ange. The gros-bon-ange means, literally, "great good angel." At conception, part of the cosmic life force passes into the human being. This is the force that all living things share, connecting us to each other in a great web of energy. The gros-bon-ange keeps the body alive and sentient, and after death, passes back into the reservoir of energy in the cosmos. Without the gros-bon-ange, a person loses their life force; it is possible, according to vodun belief, to separate a person's gros-bon-ange from him or her, and store it in a bottle or jar, where the energy can be directed to other purposes.

The ti-bon-ange makes up the other half of a person's soul. Meaning "little good angel," it is the source of personality. The ti-bon-ange represents the accumulation of a person's knowledge and experience and is responsible for determining individual characteristics, personality and will. It can leave the body when dreaming, for instance, or when the body is being possessed by a loa. The ti-bon-ange is the part of the human make-up that is most vulnerable to sorcery, even more so than the gros-bon-ange.

The Vodun Conception of Death

Vodun belief does not consider death to be a cessation of life. Rather, in death, activities are simply changed from one condition to another. The body, the shell for the life force, simply decays while the n'âme that animated the body returns to the ground as earth energy. It is the soul, the gros-bon-ange and the ti-bon-ange, that endures in a different form. The gros-bon-ange returns to the high solar regions from which its cosmic energy was first drawn; there, it joins the other loa and becomes a loa itself. The ti-bon-ange hovers around the body for a time and then departs for the land of the dead, aided by rituals performed by the houngan.

Death rituals accomplish a number of functions in vodun. The most important is to send the gros-bon-ange to Ginen, the cosmic community of ancestral spirits, where it will be worshipped by family members as a loa itself. If this is not accomplished, the gros-bon-ange can become trapped on earth, bringing misfortune on surviving family members.

The ti-bon-ange must also be dealt with. The ti-bon-ange hovers around the body for a period of nine days, at which point a ritual called nine night is performed to ensure that the ti-bon-ange stays in the grave. If this is not done, the ti-bon-ange may also wander the earth and bring misfortune on others.

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The Rituals of Death

The process of separating the gros-bon-ange from the body is called dessounin. The corpse's nostrils and ears are stuffed with cotton, and the knees and big toes are tied together. The mouth is also tied shut, and the pockets are turned inside out. During this ritual, the houngan sprays kleren to the four cardinal directions and then over the corpse to cleanse it. He shakes his asson over the corpse and lights candles. He whispers the deceased's names into the dead body's ear. Often, animals are sacrificed, and vèvés are drawn to summon the loa of the dead.

During the ritual, the houngan becomes possessed by a loa who makes pronouncements about the future to the société. Powered by the loa, the houngan becomes reborn, as the divine essence of life that belonged to the dead person becomes part of the houngan, passing through on the way to Ginen.

Taking the spirit from the dead in this way should only be performed by a fully initiated and experienced houngan, as it is a risky and dangerous procedure. The evil spirits of the dead may appear and do harm to an inexperienced houngan before good loa can be summoned to drive them off.

To banish the ti-bon-ange, it is first placed in a jar or govi. Sometimes it resides there as a worshipped spirit, as described above. At other times, the houngan burns the jar in a ritual called boule zen. This burning of the jars releases the spirit to the land of the dead, where it should properly reside. Another way to elevate the ti-bon-ange is to break the jars and drop the pieces at a crossroads.

Vévé used in the ritual of boule zen.

Using the Dead for Harm

Even after death, the ti-bon-ange can be employed to do evil acts. One way to raise a ti-bon-ange--in this case, more properly a duppy--is to throw rum and three pennies on a grave and beat it with a calabash stick. You can then command the duppy to go after someone. The ti-bon-ange can also be used to possess an enemy in an evil ritual, called sending a mort. The loa of the cemetery, Baron Cimetièrè, must be invoked to draw the dead soul from the tomb. Obtaining the spirit of the dead from the cemetery is called prise du mort.

During the period in which the ti-bon-ange hovers over the body after death, a bokor can capture it and turn it into a zombi astral. In contrast to a zombi, which is a dead body without a soul, a zombi astral is a dead soul without a body. It wanders around and performs deeds at the command of the bokor, never allowed to achieve a final rest.

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Zombis

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Indeed, the bokor does administer a powerful zombi poison to a living person to begin the process. This poison is so toxic that it merely has to be absorbed through the skin to work. No one knows exactly what the components of the poison are, but it is thought to contain substances from various toxic animals and plants, including the gland secretions of a particular frog, the bouga toad, which are 50-100 times more potent than digitalis and also contain a hallucinogen. Other ingredients supposedly include millipedes and tarantulas, the skins of poisonous tree frogs, seeds and leaves from poisonous plants, human remains (for effect), and four types of puffer fish, which contain tetrodotoxin, one of the most poisonous substances in the world.

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ability for self-ascription be explained? Clearly not by appealing to qualia, for Zombie Dave doesn't have any. The story will presumably have to be told in purely functional terms. But once we have this story in hand, it will apply equally to proud possessors of qualia such as ourselves. The self-ascription mechanisms that Zombie Dave uses are equally the mechanisms that we use; at most, the difference consists in the fact that his ascriptions might be wrong, whereas ours are right. Therefore there is no need to invoke qualia in the explanation of how we ascribe mental states to ourselves. Zombie Dave does the job, presumably, either by reasoning from non-qualitative evidence, or by simply being thrown into the appropriate state. It seems likely that we do it the same way, and that qualia are a red herring.

All this seems to lead to a rather epiphenomenalist view of qualia. Note, for instance, that the argument in the above paragraph doesn't apply only to the self-ascription of beliefs, but also to the self-ascription of qualia; so that qualia don't seem to play a primary role in the process by which we ascribe qualia to ourselves! (Zombie Dave, after all, ascribes himself the same qualia; it's just that he's wrong about it.) I am happy enough with the conclusion that qualia are mostly just along for the ride, but I suspect that Goldman and others will not be. It seems to me that the only way to avoid this conclusion is to deny that Zombie Dave is a conceptual possibility; and the only principled way to deny that Zombie Dave is a conceptual possibility is to allow that functional organization is conceptually constitutive of qualitative content. This is probably a step that Goldman doesn't wish to take, as it would negate many of his conclusions, but there may not be any tenable middle ground between functionalism and epiphenomenalism.

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Vodun and Death

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The Parts of the Vodun Soul

The Vodun Conception of Death

The Rituals of Death

Using the Dead for Harm

Zombis

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The Parts of the Vodun Soul

To understand the vodun conception of death, you first have to understand the complex set of beliefs about the human soul. According to vodun belief, a human being is made up of five basic components:

•the corps cadavre, or mortal flesh; •the n'âme, or spirit of the flesh; •the z'étoile, or star of destiny; •the gros-bon-ange; •and the ti-bon-ange, the two parts of the soul.

The physical or mortal parts of a human being are the corps cadavre and the n'âme. The corps cadavre is the body that decays after death. The n'âme is the spirit that allows the body to function while alive and passes as energy into the soil after death.

The z'étoile decides a person's destiny and resides in the heavens, apart from the body. It is not of great importance to vodun belief.

The most important components of humans are the two parts of the soul, the ti-bon-ange and the gros-bon-ange. The gros-bon-ange means, literally, "great good angel." At conception, part of the cosmic life force passes into the human being. This is the force that all living things share, connecting us to each other in a great web of energy. The gros-bon-ange keeps the body alive and sentient, and after death, passes back into the reservoir of energy in the cosmos. Without the gros-bon-ange, a person loses their life force; it is possible, according to vodun belief, to separate a person's gros-bon-ange from him or her, and store it in a bottle or jar, where the energy can be directed to other purposes.

The ti-bon-ange makes up the other half of a person's soul. Meaning "little good angel," it is the source of personality. The ti-bon-ange represents the accumulation of a person's knowledge and experience and is responsible for determining individual characteristics, personality and will. It can leave the body when dreaming, for instance, or when the body is being possessed by a loa. The ti-bon-ange is the part of the human make-up that is most vulnerable to sorcery, even more so than the gros-bon-ange.

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The Vodun Conception of Death

Vodun belief does not consider death to be a cessation of life. Rather, in death, activities are simply changed from one condition to another. The body, the shell for the life force, simply decays while the n'âme that animated the body returns to the ground as earth energy. It is the soul, the gros-bon-ange and the ti-bon-ange, that endures in a different form. The gros-bon-ange returns to the high solar regions from which its cosmic energy was first drawn; there, it joins the other loa and becomes a loa itself. The ti-bon-ange hovers around the body for a time and then departs for the land of the dead, aided by rituals performed by the houngan.

Death rituals accomplish a number of functions in vodun. The most important is to send the gros-bon-ange to Ginen, the cosmic community of ancestral spirits, where it will be worshipped by family members as a loa itself. If this is not accomplished, the gros-bon-ange can become trapped on earth, bringing misfortune on surviving family members.

The ti-bon-ange must also be dealt with. The ti-bon-ange hovers around the body for a period of nine days, at which point a ritual called nine night is performed to ensure that the ti-bon-ange stays in the grave. If this is not done, the ti-bon-ange may also wander the earth and bring misfortune on others.

Some sects of vodun believe that everyone has evil in them. While the soul, called in this case the duppy, is in the body, it is controlled by the heart and brain, and a person will not abandon himself or herself to evil. Once the duppy is released in death, however, the duppy no longer has this restraint and is capable of terrible acts. Nine night also ensures that this evil that resides in all people stays in the grave with the body.

Alternatively, the houngan can ritually separate the ti-bon-ange from the flesh and release it to live in dark waters for a year and a day. After this time, the family ritually raises the soul, now called an esprit. The esprit is placed in a special govi, where it is fed and treated like a loa, or divine being.

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The Rituals of Death

The process of separating the gros-bon-ange from the body is called dessounin. The corpse's nostrils and ears are stuffed with cotton, and the knees and big toes are tied together. The mouth is also tied shut, and the pockets are turned inside out. During this ritual, the houngan sprays kleren to the four cardinal directions and then over the corpse to cleanse it. He shakes his asson over the corpse and lights candles. He whispers the deceased's names into the dead body's ear. Often, animals are sacrificed, and vèvés are drawn to summon the loa of the dead.

During the ritual, the houngan becomes possessed by a loa who makes pronouncements about the future to the société. Powered by the loa, the houngan becomes reborn, as the divine essence of life that belonged to the dead person becomes part of the houngan, passing through on the way to Ginen.

Taking the spirit from the dead in this way should only be performed by a fully initiated and experienced houngan, as it is a risky and dangerous procedure. The evil spirits of the dead may appear and do harm to an inexperienced houngan before good loa can be summoned to drive them off.

<Billed>To banish the ti-bon-ange, it is first placed in a jar or govi. Sometimes it resides there as a worshipped spirit, as described above. At other times, the houngan burns the jar in a ritual called boule zen. This burning of the jars releases the spirit to the land of the dead, where it should properly reside. Another way to elevate the ti-bon-ange is to break the jars and drop the pieces at a crossroads.

Vévé used in the ritual of boule zen.

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Glossary

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Definitions of vodun terms found in these pages. Alternate spellings and terms are listed in italics.<Billede>
AgoRitual exclamation used in the sense of "Amen."
Angajan (Engagement)Business transaction between a person and a loa in which the person seeks malevolent magic in exchange for his/her confirmed service to the loa.
Asson (Açon, Ason)Sacred rattle of the houngan or mambo; to be "given the asson" is to be raised to priestly authority.
BagiRoom containing an altar dedicated to a loa.
BakaEvil spirit or supernatural agent that roams at night and often takes the forms of animals.
Baptême Ritual of baptism in which all sacred objects are consecrated.
Baton (Baton-Legba)Long stick or crutch used by Legba.
Batterie (Batterie Maconnique)In ritual, a specific system of sounding the asson, clapping hands and sounding the drums in a unison rhythm.
Bizango Secret society known for its practice of zombification.
Bokor (Bocor, Bòkò)Priest who practices black magic and is more involved in sorcery than in healing.
Boucan (Boukan)Bonfire lighted during a ceremony.
Boule zenCeremony in which a govi containing the ti-bon-ange of a person is burned to dispatch the soul to its final abode.
Canzo (Kanzo)Ordeal by fire through which an adept passes into initiation; also refers to the chorus of hounsi canzo who chant during ritual.
Carrefour (Kafou)Crossroads.
Cata (Boula, Bula, Petit)Smallest of the set of three Rada drums.
Ceremoni Vodun ritual or ceremony.
ChargeMagical energy or power enabling one to accomplish unusual feats.
Cheval (Chwal, Ch'wl, Horse)Person possessed by a loa.
Cochon GrisSecret society in vodun known for cannibalistic activities; literally, the "gray pig."
Corps cadavreBody, flesh and blood as opposed to the components of the soul.
Dahomey (Dahomé, Daromain)Kingdom in West Africa which is the residence of the loa.
DébâtementPeriod of physical movement, often very intense and violent, which reflects the struggle between the gros-bon-ange and the loa over the possession of the physical body of a devotee.
Dessounin (Desounen)Ritual separating of a person's gros-bon-ange from the body.
DjévoRoom inside the hounfort where vodun candidates are initiated into the religion.
DrapeauxCeremonial flags that are heavily spangled and used during rituals; some examples of vodun flags.
DuppyThe life force which, once released from a dead body, has the power to do evil.
Esprit (Espri)Spirit or soul of the dead.
FarineFlour used to trace vévés.
Farine GuinéePowdered ash used to trace vévés.
GardeProtective charm against magic.
Ginen (Guinée, Ian Guinee)The world of the dead, said to be under the water below the earth; also the homeland of Africans in Diaspora where the loa live.
GoviSacred clay vessels in which

spirits of the dead or loa are housed. Gros-bon-ange (Ba, Gwo-bon-anj) Aspect of the soul that is part of the vast pool of cosmic energy. Hoholi Sesame seeds placed in a coffin to prevent the machinations of sorcerers. Hounfort (Hounfor, Hunfor, Ounfò) Inner sanctuary or altar room where vodun is practiced. Houngan (Gangan, Hungan, Oungan) Fully initiated priest of vodun. Houngénikon (Hounguenicon, Oungenikon) Female ritual assistant to the houngan or mambo whose initiatory status is just below theirs and who leads the chanting in ritual. Hounsi (Hounsih, Hunsi, Ounzi) Accepted devotee at a hounfort. Hounsi bossale (Bosal) A hounsi not fully trained and charged with the more mundane duties. Hounsi canzo (Ounzi kanzo) A hounsi who is fully trained and has undergone the canzo initiation. Hounsi cuisiniere The sacrificial cook during ritual. Hounsi ventailleur Initiate who obtains the sacrificial animals. Hountor (Houn'tor, Huntor) Spirit of the vodun drums; also the tambourine player. Ifè Historic city of Nigeria. Kleren (Clairin) Raw rum which is a favorite drink of Guedé. Konesans Knowledge of the loa and vodun rites. Ku-bha-sah The sword carried by La Place in ritual and symbolic of Ogou. La Flambeau Literally the "torch," a title added to the names of certain Rada loa when an especially fiery form of their power is invoked. Lambi Conch shell used as a horn in ceremonies. Langage (Langay) Sacred language in which the loa are addressed. La Place (Commandant la Place, Laplas) The master of ceremonies who bears the ritual saber, the ku-bha-sah. Laver Tête Ritual washing of the head designed to baptize a loa in the head of a person. Les Invisibles Refers to all the invisible spirits, including the loa. Loa (Lwa) Vodun deity. Loup Garou Werewolf. Maman (Manman) Largest of the three drums in the Rada battery. Mambo Initiated vodun priestess who has been given the asson. Mangé Ginen (Mangé Morts) Ritual offering to the spirit of the dead. Mangé Loa (Manje Lwa) Feeding of the loa, a ceremony where offerings, including animal sacrifices, are made. Mangé sec Dry feeding of the loa, an offering made without animal sacrifice. Mèt Tèt Master of the head, a person's guardian loa. Monter la tête (Monte) Literally "to mount the head," the act of possession. Morts The dead. Mystère (Mistè) A loa. Nam (Nanm) Refers to the complete soul. N'âme Spirit of the flesh. Nine Night (Novena) Nine-day death ritual for the soul of a recently deceased person, taking place during the period in which the ti-bon-ange is supposed to hover over the body. Ogan Musical instrument related to the flattened bells of Africa. Ouanga (Wanga) Magical charm used in malevolent sorcery. Ouete mò nan ba dlo (Retirer d'en bas de l'eau) Ceremony in which the soul of the living-dead is reclaimed from Ginen and placed in a govi. Paquets Congo Small package which serves as a person's effigy to magically protect him/her from illness and evil spirits. Pé The vodun altar. Peristyle (Peristil) Open-sided building adjacent to the hounfort where the public ceremonies are held. Petro (Pethro) Group of rites distinguished by the violent energy and practicality of the Petro loa; special drums and chants mark the Petro rites. Pierre-Loa Smooth stones inhabited by loa. Poteau-mitan (Poteau-Legba, Potomitan) The center-post of the peristyle sacred to Legba and around which most ceremonies are performed; functions as the major avenue to the world of the loa. Prise du Mort Obtaining a dead person's spirit from the cemetery where the person is buried. Rada Group of rites distinguished by the benevolence of the Rada loa and marked by a particular type of drumming and chanting. Range Magical rite in which an object is charged with the power of the loa. Rara Dance festival occurring in the spring. Reler To invoke. Renvoyer To send away a loa ritually. Reposoir Circular cement basin enclosing the foot of a tree sacred to a loa. Saints Refers to the loa. Seconde Middle drum in the Rada battery. Servi Loa (Service, Servir) Used by vodun devotees to refer to their faith, "to serve the loa." Serviteur (Sèvitè) One who serves the loa. Siyale (Signaler) Ritual movement performed by the houngan or mambo in recognition of the loa at the four cardinal points. Société (Socyeté) Association of devotees who support a hounfort. Socle The masonry or cement base of the poteau-mitan where offerings are placed. Tambour A drum. Ti-bon-ange (Ka, Lespri, Ti-bon-anj) Aspect of the soul responsible for creating character, willpower and individuality. Ti Guinin Sons or daughters of Ginen, how devotees of vodun refer to themselves. Tonton Macoute Literally, a bogeyman; name applied to Duvalier's secret police. Traitement Herbal cure administered by a houngan. Verser Ritual pouring of drops of water, coffee, liquor, etc., on the ground for the loa. Vévè (Vever) Symbolic design which represents a loa to be invoked and serves as both a focal point for the invocation and an altar for offerings. Vodun (Hoodoo, Vodou, Vodoun, Voodoo, Voudou, Voudoun) Religious system formed in Haiti and based mainly on beliefs and practices brought from Africa but also incorporating Catholic components. Yoruba Region of Nigeria whose cultural history and traditional beliefs form the foundations of vodun. Z'étoile A person's star of destiny that resides in the heavens. Zombi (Zombi Cadavre, Zombie) A soulless body who has been revived from death and can be made to work as a slave. Zombi Astral A ti-bon-ange that has been captured after death by a bokor and is made to perform deeds for him. <Billede>

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Zombie Biology

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Most zombie movies have neglected to provide an explanation as to how the dead have become reanimated and attack the living. But the Living Dead trilogy has made some effort at explaining this event. This page contains a further discussion on this issue and, based on information from the series, I have outlined the known zombie traits and biological characteristics. I will also attempt to provide a realistic explanation for the reanimation, although coming up with a conclusive explanation may be impossible. Please feel free to discuss these issues with me.

Known Behavioural Characteristics

- Zombies primarily crave human flesh.
- Zombies have also been known to consume other living organisms.
- Zombies appear to be able to discern the difference between another zombie and a living human based on sight only.
- Zombies will not attack each other although they have been known to fight over food.
- Zombies often frequent places they are familiar with from their normal life.
- Zombies are initially quite weak. In Night and Dawn, generally people could run in amongst them without much danger.
(Courtesy of Mark Stewart).
- Zombies seem to increase in strength over time. By Day of the Dead, people are not so capable of breaking free from them once a zombie has hold of you. They are also capable of tearing apart a human being with apparent ease. In Day of the Dead, the zombies were strong enough to tear a man in half and tear a man's head off.
- Zombies retain some knowledge or memories from past lives.
- A dead body will rise within a few hours unless the brain is destroyed.

Zombie Physiology

The next step is to analyse in more detail the aspects of their physiology. This information was either stated in the movie or can be determined based on observation.

- A zombie must have the brain damaged in order to terminate its existence.
- The reanimation only seems to affect humans. •The bodies remain animated for a period of up to 10 years before decay threatens the mobility of the limbs.
- The normal decay process is drastically slowed down or inhibited.
- Fluid levels within the organism appear to be maintained, otherwise the animated corpse would simply dry up and be unable to function. Yet we never see a zombie drinking water or liquid.
- A zombie does not require food for sustenance. A zombie with all its internal organs removed will continue to function.

- A zombie can also function without the normal flow of blood. This critical fact means that cells are not supplied with nutrients and fluid in the normal manner. Yet the cell structure seems to remain intact over a period of years.
- I do not think there is any evidence to conclusively support the notion that a zombie bite alone will cause reanimation. A zombie bite may cause death in a human. But the body itself may become reanimated for the same reason that bodies became reanimated in the first place. Reanimation may not necessarily be caused directly by a zombie bite.

Explanation for Reanimation

Before continuing, it may be important to discuss the source of the reanimation, since this may give us some insights into what causes the zombies to function. The explanation was never officially provided in the series and it is left to us to come up with some theories. Here are a few possibilities. Does anyone else have any more ideas? I feel that the best explanation for the reanimation is the first one.

- An alien virus that came to this planet from outer space, possibly in a meteorite or comet.
- A man-made virus created in a laboratory that was accidentally released.
- An attempt at biological warfare that went drastically wrong.
- A large scale radioactive or chemical leakage.
- Judgement Day - punishment by God.
- In the original Night, speculation centered on the destruction by NASA of one of its probes to Venus. The probe was found to be carrying a strange radiation with it. (Courtesy of Mark Stewart).

How Does A Zombie Function

The question then becomes: how do the zombies function? What allows them to defy the laws of nature by remaining animated and mobile for so long without decaying ? What causes them to desire human flesh? We have already seen in Day of the Dead that Sarah and the other scientists were trying to answer this very question. Next update I will try to provide my theory. If you have any ideas, please email me.

Why Do Zombies Crave Human Flesh

Desservol@aol.com has put forward an idea for this: "A zombie eats and kills not because it is hungry but because of instinct. But why would this action be contained in their instincts? I think it is because eating warm flesh keeps their bodies from decaying. It rejuvenates their bodies". This is probably as good an explanation as you are going to find. Maybe the force that animates the dead bodies somehow utilises human flesh to assist in maintaining the body. However human flesh could not be an essential component since a zombie can exist with its internal organs removed. (i.e. it would be unable to process consumed flesh).

Note

This section is still under construction. If anyone has some points to add to any of the sections, please email me. I have only seen Dawn of the Dead a few times, and unfortunately I have not seen a video store in recent years that stocks it, so I do not have access to a copy. But the script of Dawn may provide more information.

<Billede: under construction>More information coming next update....

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Onko Enterprises asks you

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It has been of a hundred years since the last documented zombie attack in the continental United States. This uneasy peace with the dead, however, cannot last forever.

Are you prepared for the inevitable???

Consider these sobering facts

<Billede> Ninety-five percent of Americans live within two miles of a cemetery or mortuary.

<Billede> Most Americans use and value their brains -- the natural food of zombies.

<Billede> Ninety percent of zombie related fatalities occur in the home.

<Billede> The only proven defense against zombie attack is an effective early warning system.

The sad fact is that in this modern world no home is safe. However, when survival is a matter of a few minutes warning no family can afford to be without

<Billede: Zombie Alert, By Onko>

Zombie Alert, by Onko, is the world leader in zombie warning systems. The patented cyclo-kinetic energy radiation server senses zombie presence up to seventeen hundred yards away and emits a shrill warning capable of waking the most sound sleeper. The links below contain the details about Zombie Alert and other products by Onko Enterprises. You owe it to your loved ones to take a few minutes and review this important information.

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This page web page brought to you by Onko, home of the

\$1,000,000 guarantee

Should Zombie Alert fail to operate in a documented Zombie attack Onko Enterprises will pay the above sum to the owner of the failed product.

[This bit of humor brought to you by Loris Productions. All claims about Zombie Alert are false, provided for your entertainment, and nothing is actually offered for sale.]

Comments? Mail us at

oro@teleport.com

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THE EXPERTS SPEAK OUT ON THE ZOMBIE THREAT

With the proliferation of low grade B movies about zombies, many have come to believe that zombie attack is not a serious threat to home and family. In the hallowed halls of our great universities and institutions, however, that is not the case. Although some ultra-liberal academics have suggested that zombiehood is simply a case of normal people who are metabolically challenged, the vast majority of scientists and researchers remain seriously concerned about the zombie threat to the American way of life.

Below are excerpts from many scholarly papers addressing the zombie issue. Each is linked to the original article so you can examine the documents yourself. We at Onko believe that an informed citizenry is a protected citizenry and urge you to carefully study what these experts have to say.

(Comments in italics have been inserted by representatives of Onko to make the transition between quotes easier to follow)

Zombie Killer

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1. Largely written whilst a participant in the 1996 NEH Summer Seminar: "Metaphysics of Mind".

They have the same information processing capacities that we humans have, and, because of this, a similar capacity to form cognitive representations and perhaps even to enter into intentional states, but they are not conscious because they do not have sensations, or *_qualia_* as the jargon has it. A zombie can tell you that the rose before it is red, and it will wince and hastily withdraw its hand if it touches a hot stove; however, unlike us, it never experiences the quintessential redness, the 'raw feel' of red, or the awfulness and misery of burning pain.

(In short, zombies do not suffer. So fire away)

Zombies

The Zombie's performance is a sham, a shell of behaviour covering a core of nothingness.

Technically speaking, a Zombie is a human being who, despite having full mastery of a set of sensation-concepts, is nevertheless himself unable to have any sensations appropriate to those concepts.

IN DEFENSE OF IMPENETRABLE ZOMBIES

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Zombies can't understand anything;

Zombies are in principle no more than encased rocks

The Zombie Attack on the Computational Conception of Mind

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(1) Brains cause conscious mental phenomena. (2) There is some sort of conceptual or <Billede>logical connection between conscious mental phenomena and external behavior. (3) The capacity of the brain to cause consciousness is

conceptually distinct from its capacity to cause motor behavior. A system could have consciousness without behavior and behavior without consciousness.

[W]hat about the zombie problem? Very simply, heterophenomenology by itself cannot distinguish between zombies and real, conscious people, and hence does not claim to solve the zombie problem or dismiss it. ([25], 95)

(Where heterophenomenology fails, Zombie Alert and a good shotgun succeed)

Self-Ascription Without Qualia: A Case-Study

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[Commentary on Alvin Goldman, "The Psychology of Folk Psychology", Behavioral and Brain Sciences, 1993.]

First, let us ask: Does Zombie Dave have beliefs? It seems to me that he does. If we ask him where his car is, he'll tell us that it's in the driveway. If we ask him whether he likes <Billede>basketball, he tells us that he does. If we tell him that there's a basketball game starting across town in half an hour, he'll immediately head for the driveway.

(Yea, he beleives there will be a lot of tasty human brains at the game)

The self-ascription mechanisms that Zombie Dave uses are equally the mechanisms that we use; at most, the difference consists in the fact that his ascriptions might be wrong, whereas ours are right.

(But you should do your arguing with a sharp axe.)

Zombies and the Function of Consciousness

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The zombie is a mere automaton. There is 'nothing that it is like' to be a zombie. But zombies can and will fool even the sharpest 'mental detector.' Zombies behave just like we do, but are completely 'mindless' in the conscious sense.

(But nothing reeking of the living dead gets by Zombie Alert)

How can we be sure that some or all of the people around us are not zombies?<Billede>

Zombies who grew up in our midst might become glib in the use of our language,

A zombie, or an isolated population of zombies, could 'originate'

No one thinks that the existence of zombies who display no 'mark of zombiehood' is likely in this actual world. It is just that the existence of zombies who are behaviourally indistinguishable from us appears to be metaphysically, logically, and nomically possible.

Zombie inhabitants of Zombie Earth would be distinguishable from us, because, lacking conscious lives, the zombies would never--indeed, could never--develop the mentalistic concepts and vocabulary that we have.

The occupants of Zombie Earth are smart

(But those who protect themselves with Zombie Alert are smarter)

Zombies sometimes bump into trees.

(So they aren't so smart after all?)

The laws of nature as we know them in our vicinity allow that very intelligent, informationally-sensitive, but non-conscious creatures, could evolve.

Zombies won't be able to do philosophy.

(Most of them aren't too good at math either)

Revenge of the Zombies

American Philosophical Association Eastern Division Colloquium: Philosophy of Mind, December 29, 1995. {1}

Larry Hauser (lshauser@aol.com)

Zombies recently conjured by Searle and others threaten civilized (i.e., materialistic) philosophy.

These humanoid beings look like they see, harken like they hear, and act like they want. They even talk like they understand our language and know things; but it's all without conscious experiences.

Zombies must be stopped before they destroy civilized philosophy

<Billede>They still dine on brains

No sooner are such zombies conjured, of course, than they're off on their destructive rampage

There seems no way to stop them

All zombies eat brains

(But they won't be eating yours when your home is protected by zombie alert)

You Can't Argue with a Zombie

by Jaron Lanier

A zombie has a different philosophy. That is the only difference. Therefore, zombies can only be detected if they happen to be philosophers.

(Or by Zombie Alert)

<Billede: I walked with a Zombie>Arguing with zombies is generally futile

Zombies are having a significant indirect influence on cultural and political thought, and I wish to thwart them.

(And so do we at Onko. That's why we developed Zombie Alert)

And then, there's a lot to be learned from zombies; they are useful, at the very least, as conversation pieces.

I faced a class comprised mostly of zombies at Dartmouth

(If they can be found at Dartmouth your home town is not far behind.)

I wondered if there might be a cure after all for zombie-hood.

Todd Moody's Zombies

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Wouldn't a real moody zombie behave?

(Only if you shoot him. And then it doesn't matter what mood he is in.)

Conversations with Zombies

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Journal of Consciousness Studies, 1 (2), 1994, pp. 196-200.

The 'zombie problem' is the problem of consciousness.

(At Onko, we've been conscious of the problem for years.)

Zombies are possible

They speak zombie- English, a language that looks much like our own English language.

Zombies understand[z] many of the same things that we understand.

If there are zombie philosophers, they would be able to make no sense

Zombie philosophers would be persistently baffled

This means that at the level of culture there are _necessary behavioural differences_ between zombies and non-zombies, because those differences are the result of the differences in the conceptual vocabularies available to each culture.

Zombies may be able to ape our consciousness-talk, but they cannot _originate_ it with any hope of getting it right.

These are just a few of the philosophers, scholars and scientists who have addressed the problem of the living dead. For look at zombie resources from Z to A on the web please take a look at

Zombies on the web

Or return to the other fine pages presented by Zombie Alert

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<Billede: Journal of Consciousness Studies -- Controversies in Science and the Humanities>

Conversations with Zombies

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The problem of 'conscious inessentialism' is examined in the literature, and an argument is presented that the presence of consciousness is indeed marked by a behavioural difference, but that this should be looked for at the cultural level of speech communities.

The 'zombie problem' is the problem of consciousness, stated in a particularly provocative way. Given any functional description of cognition, as detailed and complete as one can imagine, it will still make sense to suppose that there could be insentient beings that exemplify that description. That is, it is possible that there could be a behaviourally indiscernible but insentient simulacrum of a human cognizer: a zombie. This is so because the best functional description can only map inputs onto behaviours by means of computations of some sort. That certain computations are associated with consciousness is at most a contingent fact about them. The problem is reiterated at the level of any possible physical description of cognition as well. In this case, the intervening processes between inputs and behaviour will be of a causal, rather than formal, sort.[1] Nevertheless, the link between those processes and consciousness is still contingent. As long as the link between publicly observable states of any sort and consciousness is contingent, zombies are a possibility. The zombie problem is a variation on the 'other minds' problem, but I hope to show that it is not an idle variation. It offers, I think, a vivid way of conceptualizing the philosophical questions about consciousness. Suppose there is a world much like our own, except for one detail: the people of this world are insentient. They engage in complex behaviours very similar to ours, including speech, but these behaviours are not accompanied by conscious experience of any sort. I shall refer to these beings as zombies.[2] This scenario, though surprising, is a possibility suggested by a theory recently referred to by Owen Flanagan as 'conscious inessentialism', which is defined as follows:

the dominant philosophical theory of mind, computational functionalism was (and still is) committed to the view of conscious inessentialism. This is the view that for any mental activity M performed in any cognitive domain D, even if we do M with conscious accompaniments, M can in principle be done without these conscious accompaniments. (Flanagan, 1991)

Conscious inessentialism clearly entails that any given behaviour could also occur without conscious accompaniments. The only reason why one would suppose that certain behaviours do require conscious accompaniments is that the behaviours in question appear to require mental activity of some sort. Since conscious inessentialism tells us that no mental activity requires conscious accompaniments, it follows that no overt behaviour requires them either. So if conscious inessentialism is true, zombies are possible. Indeed, if conscious inessentialism is true, it is quite possible for an entire world of zombies to evolve, which is the premise of the current thought experiment. It is behaviours, after all, and not subjective states, that are subjected to evolutionary selection pressures. If those behaviours do not require consciousness, then evolution is indifferent to it. That the zombie problem may have significant metaphysical

implications is concluded by Robert Kirk in a paper on the topic: 'it is hard to see how any intelligible version of Materialism could be reconciled with the logical possibility of Zombies, given that we are sentient'. (Kirk, 1974)

Is conscious inessentialism true? One argument for conscious inessentialism was intimated above: the most that we can ever hope to establish by empirical means is the regular correlation of observable states of some sort with consciousness. Such a correlation warrants only a conclusion of a contingent relation. Another source of support for conscious inessentialism comes from cognitive psychology. Increasingly, scientists are finding that what happens in consciousness is not essential for understanding mental functioning. We recognize each other, solve problems, use language, and although all these things have 'conscious accompaniments' it seems that the real work is not done consciously at all. In short, cognitive science is drifting towards a kind of epiphenomenalism. The artificial intelligence research programme is a part of this drift. To quote Flanagan again:

Whereas most skeptics of strong artificial intelligence press worries that machines cannot be given consciousness, computational functionalism can be read as making this objection irrelevant. Mind does not require consciousness. (Flanagan, 1991)

The same point is made by John Searle, commenting on the intelligibility of the distinction between conscious and unconscious robots.

as far as the ontology of consciousness is concerned, behavior is simply irrelevant. We could have identical behavior in two different systems, one of which is conscious and the other totally unconscious. (Searle, 1992)

If conscious inessentialism is true, then it would presumably be impossible for us to tell whether visitors from another world are zombies. After all, if there is no necessary behavioural difference between them and us, as conscious inessentialism requires, there would be no identifiable mark of zombiehood. This at least is what appears to follow from the thesis. I shall argue that the 'mark of zombiehood' will be found not at the level of individuals but at the level of speech communities.

Let us begin by looking at the language of the zombies, and the sorts of things they might say with it. Let us suppose that they speak zombie-English, a language that looks much like our own English language. Certain words of zombie-English would have to have meanings somewhat different from their English counterparts. For example, the word 'understand' in English refers not only to what sorts of performances a person is capable of, given certain inputs and outputs, but also to a particular kind of conscious experience. I use this example because it is so familiar from Searle's Chinese Room argument. To understand Chinese is more than to be able to produce passable answers to questions. There is something it is like to understand Chinese, or anything else. Understanding has a phenomenology.

For a zombie, however, it is not like anything to understand Chinese, or anything else, because it is not like anything to do anything. So when a zombie uses the word 'understand' we must understand that he or she is not making any reference to any sort of conscious experience. To distinguish zombie-English words of this ilk from their English counterparts, I shall use the superscript[z]. Thus, we can say that zombies understand[z] many of the same things that we understand.

We can imagine being visited by the beings from zombie-Earth. Our natural science might look a great deal like theirs, and our mathematics would likely be very similar. That is, their beliefs[z] in these domains could easily be supposed to be very close to our beliefs. But there would also be some interesting differences, especially in the domain of philosophy.

Consider, for example, the phenomenon of dreaming. Could there be a cognate concept in zombie-English? How might we explain dreaming to them? We could say that dreams are things that we experience while asleep, but the zombies would not be able to make sense[z] of this. For them, the word 'experience[z]' can have at most a behavioural meaning. Indeed, zombies would understand[z] sleep[z] itself quite differently from the way we do. The word 'conscious[z]' could only mean responsive to the environment.

Still, we can imagine that it happens on the zombie world that upon waking[z] from sleep[z], one finds[z] that one has acquired apparent memories[z] that are not consistent with the rest of one's beliefs[z] and memories[z], and so forth. The zombies might refer to this coming- to-seem[z]-to-remember[z] as dreaming[z]. But that is not the end of the matter, as we shall presently see.

If there are zombie philosophers, they would be able to make no sense[z] at all of the other minds problem. They might, of course, be able to ponder[z] an 'other zombies' problem: how do we know[z] that there are not other beings whose experience[z] is accompanied by a quality that we cannot fathom[z]? But it is unlikely that this problem would occur to them, until they met us. At that point, the zombie philosophers might do a great deal of thinking[z] about the things that we try to explain to them. They would be especially puzzled[z] by our human philosophical literature about dreaming, especially the debate between those who argue that dreams are experiences and those who, like Dennett, argue that they can be explained as coming-to-seem-to-remember.[3] To the zombie philosophers, Dennett's position would be clear enough. What would be mysterious is the opposing (and, in fact, more 'common sense' to us) view, that dreams are experiences. So, even though zombies might dream[z], their concept[z] of dreaming[z] would not be philosophically problematic in the way that ours is.

Zombie philosophers would be persistently baffled[z] by the fact that we talk about 'consciousness' as if it were something more than being the subject[z] of experiences[z]. What more could it be? Would they be able to make sense[z] of the inverted spectrum problem? It is hard to see how they could. This is an interesting example, since even those human philosophers who argue that it is a pseudo-problem are nevertheless able to understand it.

The inverted spectrum problem would not work in zombie philosophy because it depends upon a concept of 'internal seeing'. This concept is found not only in academic (human) philosophy, but also in imaginative literature and film. In the 'Terminator' science-fiction films, for example, we are occasionally given a 'robot's-eye view' of the world, in which the bottom portion of the screen is filled up with various readouts: distance to target, velocity and the like. As human viewers of the film this device makes sense to us, because we can conceive of a kind of 'internal seeing' in which we can look at the readouts while we also look at the world. This imaginative device could make no sense[z] at all to zombies, because the idea of 'internally seen' readouts has no zombie analogue or purpose.[4]

Philosophers - human, earthbound philosophers - have argued that the other minds problem cannot be solved except by analogy, and that there is no empirical content to the notion of a zombie. That is, they argue that because there is no behavioural (and therefore observable) 'mark of zombiehood', it follows that the concept has no real content. But I hope that I have shown that while it is true that zombies who grew up in our midst might become glib in the use of our language, including our philosophical talk about consciousness and dreams, a world of zombies could not originate these exact concepts as they are played out in philosophical discourse and imaginative idea-play, such as science fiction. Their discourse would have gaps in it (from our perspective), and concepts from our discourse (philosophical and imaginative) would be permanently untranslatable into theirs. This is important, because it suggests a qualification to conscious inessentialism. Even though the activities of talking about the philosophical dream problem or internal seeing do not require consciousness, the emergence of those concepts in a language community does. This means that at the level of culture there are necessary behavioural differences between zombies and non- zombies, because those differences are the result of the differences in the conceptual vocabularies available to each culture. At the level of culture, conscious inessentialism is false.

What is most interesting is the fact the zombie scientists would have to regard consciousness (not consciousness[z]) as something beyond the scope of their science. They would be forced to conclude[z] that consciousness is not consciousness[z]. But their science is methodologically just like ours. Suppose that human scientists were to develop what they took to be the complete scientific explanation of consciousness and deliver it to the zombie scientists, saying:

'Here is the full explanation of human consciousness. We hope it answers your questions.' It wouldn't, though. No matter how replete a scientific explanation of consciousness we might present to the zombie scientists, they would still have no inkling[z] of the explanandum. This is another way of stating Nagel's point that the scientific worldview explicitly excludes the subjective. (Nagel, 1986, Ch. 2).

That the zombies are different from us is a fact discoverable not by natural science but by a kind of hermeneutic analysis of the sorts of things that we talk about and what we have to say about them.[5] The mere fact that the zombies (as we would later recognize them to be) do not philosophize about internal seeing in the way that we do would not entail that they are zombies. That we could not explain that problem to them, however, would raise suspicions. Further analysis would clarify the conceptual gaps. But do these gaps cast a shadow of doubt upon materialism, as Robert Kirk claimed? Nagel claims that they do not:

The fact that mental states are not physical states because they can't be objectively described in the way that physical states can doesn't mean that they must be states of something different. The falsity of physicalism does not require nonphysical substances. It requires only that things be true of conscious beings that cannot, because of their subjective character, be reduced to physical terms. (Nagel, 1986, p. 29)

These facts lead Nagel to a dual aspect theory, although he concedes that such a theory is 'largely hand waving' (*ibid.*, p. 30). That is, reality has those aspects that can be encompassed within natural scientific theory and those aspects that, in principle, cannot. The conscious aspect of reality can neither be reductionistically eliminated nor explained by natural science. This means that there are not necessarily any discoverable physical differences between zombies and us that would explain the phenomenological difference. This counts against materialism because these phenomenological differences are perfectly real but are not part of the 'natural order', as it is materialistically construed. They cast a shadow, if you will, into the natural order in virtue of our ability to talk about them. Zombies may be able to ape our consciousness-talk, but they cannot *originate* it with any hope of getting it right.

My own view is that this radical incompleteness of natural science with respect to consciousness entails, at the minimum, an equally radical agnosticism about the ontology of minds and persons. It means that we are not in a position to insist that materialism is true, and that therefore nonmaterialistic hypotheses and research programmes cannot be rejected *a priori*. The appeal of a dual aspect theory is that it avoids the difficulties of ontological dualism, but it is indeed mostly hand waving. It does not really explain why it should be that the stuff of the world has irreducibly distinct categories of properties. As I see it, dual aspect theory is largely an attempt to disguise the incompleteness of materialism. It is steadfastly materialistic at the level of 'substance' and quarantines the problems of dualism to the level of 'properties'. Ontological agnosticism is more candid.

This line of thinking has some interesting corollaries. Zombies are, in relation to us, in the same predicament that most of us are in relation to those mystics who report back to us their experiences of what is sometimes called superconsciousness. We can ape what they say, if we want to, but we don't really know what we are talking about. This difficulty is sometimes referred to in the mystical literature as 'ineffability', but the mystics understand each other, just as human non-zombies do.[6]

There is a literature on the question as to whether the things that mystics say count as evidence for the reality of a transcendent order of some sort. Given the absence of an independent way to verify their statements this presents grave difficulties. Nevertheless, we can easily imagine the parallel case of the zombie philosophers wondering[z] whether our consciousness-talk is evidence of something other than mere consciousness[z]. We can understand that they might be sceptical[z], even though to us there is nothing more real than consciousness.

Consider the possibility that a few zombies might discover a discipline that, after considerable practice, turns them into non-zombies, like us. It would presumably be very difficult to convince other zombies that such a discipline has any point, and it would be quite easy for the zombies to dismiss the phenomenon as marginal or pathological. The zombie

scenario does not prove the 'validity' of mystical experience, whatever that would mean, but it does entail that such experience cannot be dismissed on the grounds of its radical unfamiliarity to the rest of us. We might, after all, be zombies.

Notes

This short article gave rise to a much longer symposium entitled "zombie earth" in a later issue of this journal.

[1] The precise difference between causal and formal processes is itself a matter of some controversy, which I need not go into here.

[2] This is of course not what the word 'zombie' really means, but this usage is now part of the jargon of philosophy of mind.

[3] Daniel C. Dennett refers to this as the 'cassette theory' (Dennett, 1978).

[4] I am indebted to Jonathan Shear for thinking of this ingenious example, and for also pointing out that, to the extent that the Terminator is supposed to be a zombie-like automaton, the device makes no sense in the movie either.

[5] This approach, which could be dubbed 'speculative hermeneutical analysis', is similar to the empirical hermeneutical analysis pioneered by Julian Jaynes (1976), whose reading of the *Iliad* and other early texts suggested to him the existence of a pre-conscious 'bicameral' mind. In both cases, an inferential link is established between the nature of mind and kinds of possible language games observed.

[6] Like mystics, we all have a highly metaphorical phenomenological language for describing the variations in our states of consciousness. We talk about feeling 'fogged in' or 'sharp', and we understand each other. Their problem is that they must adapt the language of non-mystics to their purpose.

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