Recently I ran across some articles that got me thinking of ‘zombification’ in the animal Kingdom. A really great summary by Mo Constandi on his blog Neurophilosophy (Costandi, 2006) as well as an article by Evans, Elliot, & Hughes (2011) describe brain altering fungi – usually from the genus Cordyceps. This entomopathogen (something that causes disease in insects) infects ants when its spores attach to the outside of the insect. The spores then germinate growing into the interior of the ant’s body through the spiracles (i.e. respiratory holes in the exoskeleton) or its trachea (or throat). The fungus then sends mycelia, which are filament-like roots, into the body of the ant where it feeds on any soft tissue while avoiding any organs necessary for the ant’s survival. Eventually, the mycelia grow into the ant’s nervous system where they release chemicals that affect its brain. This causes the ant to change its behavior. Typically, the ant will then climb up a plant to an exposed location where it will then clamp on to a leaf. At this point the fungus will then consume the ant from the inside out and produce spores. These fruiting bodies (i.e. the ‘mushroom’ part of the fungus) will then sprout from the ant’s head and body. The fungus will then release spores from the fruiting body and exposed location of the ant will allow these spores to spread via the air and hence to other ants.
Ant with *Cordyceps* Fruiting Body Growing from its Brain

Such a relationship between parasites and insects is not unusual and there are many other examples in the animal kingdom. For instance a similar example involves crickets that are infected by nematodes (roundworms) that cause them to jump into water facilitating the nematode lifecycle (Thomas et al., 2003). Lewis (1974) describes the life cycle of *Leucochloridium helminthes* (worms), which infect terrestrial mollusks (snails). The worms infect the snails and form broodsacs in the snail’s tentacles. The tentacles become striated, swell, and pulsate mimicking something like a maggot – a favorite food for birds. The worm also changes the snail’s behavior so that it moves to an exposed place. Birds are attracted to the maggot-like tentacles and bite them off the snails. The worm larvae are then excreted by the bird ready to infect another snail. The snails do not necessarily die, the tentacles can regenerate, and more broodsacs can be formed.* Other snails infected with helminthes may instead be castrated by the broodsac that form inside the snail.

Snail with *Leucochloridium* Infection

The phenomena of parasites changing the behavior of a host are not limited to insects and mollusks. There is evidence that infection by the intracellular protozoa *Toxoplasma gondii* changes the behavior of rats. Rather than showing aversion to cats the rats no longer act as if the cats are no longer predators and in some instances are attracted to them. This of course results in the infected rats being eaten and the cats facilitating the life cycle of the parasite through harboring the protozoa and then excreting it in their feces.

*T. gondii* is infectious to all mammals and will infect the human nervous system in particular. Pregnant women infected with *T. gondii* can pass it on to their unborn children causing serious problems such as cerebral palsy, mental retardation, and even death. This is why pregnant women should not change the kitty litter!

Generally infection with *T. gondii* is asymptomatic in the initial stages though it has been linked to psychotic symptoms in humans, especially those who have compromised immune systems. Late stage *T. gondii* infection has been linked to personality changes, a decrease in intelligence, psychomotor performance degradation, certain types of brain tumors, and schizophrenia. A paper by Webster et. al. (2006) clearly outlines the evidence for the association of *T. gondii* infection and schizophrenia. The authors hypothesize that anti psychotic medications such as haloperidol may work in part because they have anti – *T. gondii* properties. In fact, the authors found that haloperidol and valproic acid were as effective in controlling *T. gondii* infection in rats as
standard anti–*T. gondii* medications. The authors conclude that their findings could “lead to improved prognosis and potentially new medication combinations and therapeutic modalities for the treatment of both toxoplasmosis and severe psychiatric disorders” (p. 1029). Seen from this light it is possible that schizophrenia associated with *T. gondii* infection could be seen as a form of ‘zombie-ism’ – one that could be treated by eradicating the protozoa, which is also be a potentially new way of dealing with psychosis!

Of course humans suffer from other types of nervous system infections that could potentially affect behavior. For example one of the most common and oldest known infection of the brain is caused by *Taenia solium* otherwise known as the tapeworm. *T. solium* usually enters the body when a person eats undercooked pork that carries the eggs of the tapeworm. These hatch in the intestines and live in this ‘food rich’ environment. But sometimes *T. solium* makes its way into the bloodstream where it can travel to the muscles, eyes, or brain.

In 2008 Fox news reported on a woman in Arizona who had a live tapeworm in her brain (“It’s Not a Tumor – Doctors Find Worm In Woman’s Brain Instead,” 2008). She had reported numbness in her arm and blurred vision and doctors suspected a tumor. Indeed something showed up on a MRI scan and the woman was scheduled for surgery. During the operation for an expected tumor the woman’s surgeon found the live worm and removed it. Interestingly, this woman was lucky because once the worm was removed her neurological symptoms resolved. Worse problems may arise if the worm dies while in the brain. When this happens an inflammatory immune action is provoked and a cyst is formed around the worm. This can cause headaches, encephalitis, seizures, and in some cases zombie-like mental confusion as well loss of coordination and balance. While single cyst-caused lesions are less problematic, people who have multiple or calcified lesions may have permanent neurological issues (Singhi, 2011).

*T. solium* infection highlights the importance of fully cooking food like pork as well as the necessity for good hygiene among those who handle food.

The infections cited above, whether deliberately part of an organism’s life cycle (as with *Cordyceps* or *Leucochloridium*) or accidental (as with *T. gondii* or *T. solium*), cause damage to the brain. There are of course other pathogens such as viruses that can also infect the brain. These infections result in *encephalitis*, which is an inflammatory response causing swelling and irritation that are potentially life threatening. Encephalitis is most often caused by a virus and usually results in mild flu-like symptoms. However, encephalitis is unpredictable. Severe cases can be deadly or cause permanent brain damage, having at least the potential to create a zombie-like state. Some pathogens, like viruses in the *Herpes simplex* (HSV) group can cause severe encephalitis.

Three of the HSV types (HSV-1, HSV-2, and Varicella zoster) can infect the human nervous system. HSV-1 (commonly known as oral herpes) is the most common cause of viral encephalitis that can be life threatening. HSV-1 has a preference for infecting the frontal cortices, which can produce a number of neurological
problems, including language and memory impairment as well as epilepsy. Psychological issues such as personality and behavioral abnormalities, including disinhibition and increased aggression can also occur (Arciniegas & Anderson, 2004). HSV-2 (the type responsible for genital herpes) infection can also produce encephalitis that causes neuropsychological symptoms. While HSV-2 seems to have a preference for infecting the meninges (tissues around the brain), it can also affect the brain, brainstem, cranial nerves, nerve roots, and spinal cord, as well. This can result in cranial nerve damage (neuropathy), weakening (hemiparesis) or loss of sensation (hemisensory loss) on one side of the body, and altered levels of consciousness. Typical herpes skin lesions may accompany neurological infection (Berger, Houff, & Fathallah-Shaykh, 2008). It seems plausible that people suffering from untreated neurological HSV 1 & 2 encephalitis could look and behave like zombies.

Another serious possible consequence of HSV encephalitis is Kluver-Bucy Syndrome (KBS) (Begum, Nayek, & Khuntdar, 2006; Cohen, Park, Kim, & Pillai, 2010; D Ku & Sang Yoon, 2011; Duggal, Jain, Sinha, & Nizamie, 2000; Gabison-Hermann, Pelletier, Taleb, & Bouleau, 2009; Yilmaz et al., 2008). Heinrich Kluver was a German émigré experimental neuropsychologist at the University of Chicago. He served as a German soldier from World War I and was wounded. A trip to the base hospital spared him from defending against the final Allied assault and perhaps saved his life. Those who didn’t know him well found him diffident and somewhat perfectionistic – almost a cliché of German scientists from this era. His friends however know him as a warm and thoughtful scientist. Kluver studied eidetic imagery, which led him to study hallucinations induced through mescaline. Reportedly Kluver used himself as a guinea pig with regard to the effects of mescaline and an overdose supposedly left him seriously ill for a time. After studying the effects of mescaline on monkeys he began experiments with neurosurgeon Paul Bucy on the effect of removing the temporal lobes of the brain in their primate subjects. The loss of the temporal lobes produced a syndrome that was named after the two researchers. (Hunt, 1980).

Kluver-Bucy Syndrome (KSB) results in marked behavioral changes which include hyperorality (putting things in the mouth), hypoermetamorphosis (a fixation of attention to something in the environment – usually related to orality), hypersexuality, and a supposed passive ‘tameness’ (Klüver & Bucy, 1937, 1938, 1939). The last quality has been construed as a lack of aggression in that caged monkeys with KBS were more placid and easily
approached. However, in a later experiment by Kling where the monkeys were allowed to roam freely after the operation, it was noted that the animals did not act tame and were not easily approached, but instead became socially isolated (Glick & Roose, 1993).

In humans KBS results in behavioral changes similar to those in monkeys. These changes, however, are more elaborate and include amnesia, Attention-Deficit/Hyperactivity Disorder, confusion, aggression and frustrated rage, pica (eating non-edible things including coprophagia), dysphasia (impairment in speech and comprehension of speech), emotional blunting and lability, hypermetamorphosis, hyperorality (which in one case involved continual spitting), hypersexuality, impulsivity, passivity, visual agnosia (inability to make sense of what is seen), etc. (Begum et al., 2006; Berger et al., 2008; Cohen et al., 2010; D Ku & Sang Yoon, 2011; Duggal et al., 2000; Gabison-Hermann et al., 2009; Greenwood, Bhalla, Gordon, & Roberts, 1983; Lilly, Cummings, Benson, & Frankel, 1983; Yilmaz et al., 2008). There can be a number of causes of KSB in humans (besides encephalitis) and damage to the temporal lobes may vary to a great degree (Lilly et al., 1983). Interestingly the studies of KSB in humans often report some form of aggression. Clearly many of the aspects of KSB listed above could be seen as indicative of a form of ‘zombie-ism’.

I am familiar with KSB from my psychological practice at a large state mental hospital. When I worked in a skilled nursing ward I had a patient (who I will call) John who demonstrated many aspects of KSB in humans.

John’s life was a tragedy. At age five he was playing in his driveway behind his parent’s car. His father, rushing off to work, failed to notice the little boy and backed the car up, driving over the boy’s head. John survived but suffered severe brain injury on one side to his temporal and frontal lobes. He became developmentally delayed (what used to be called ‘retarded’) and his behavior became unruly and violent. John’s behavior became so bad his parents couldn’t handle him at home and he was committed to a state mental institution. When I began to work with John he was 30 years old and had grown up in the mental hospital. This was not a good place to grow up. In John’s case being an unruly violent child in the company of other unruly violent children meant constant fights and injuries. When John became a teenager he got in an especially bad fight that resulted in his head being repeatedly smashed against a concrete floor by an older, much stronger patient. This patient had no idea of what he was doing and kept hitting John’s head against the floor until John almost died.

John suffered further traumatic brain injury from this incident, this time to the temporal and frontal lobes on the other side. Whereas after the first injury John could talk and reason to some degree, after second he could not. His demeanor was that of being in a awakened vegetative state. John also suffered damage to his motor cortex and was paralyzed from the waist down. More interestingly though (and the point of this story) is that the damage to John’s frontal lobes resulted in KBS. In essence, John became an eating machine. Without consciousness John would spend every waking second trying to eat something, whatever came within his grasp. He would constantly pick at his clothes until he could rip off chunks and eat them. John’s physician showed me an old X-ray of John’s stomach which was filled with cloth, a couple of forks, toys, anything he could fit in his mouth.
John would also try and eat people. When you came close to John he would reach out, grab you, and try to get a bite. Because of this insatiable appetite for anything he could get his hands on, John spent his days dressed in rip-stop clothing, with his arms tied down in restraints. This drive to eat had no conscious motivation to it, and John exhibited no consciousness at all – eating was the whole of John’s being. John exhibited hypermetamorphosis in that once he locked on to something in the environment he would focus obsessively on trying to eat it. John was not usually aggressive, except if he were kept from something he wanted to eat. Then he would become frustrated and somewhat enraged. Had John able to walk, he would certainly have attacked people and tried to eat them. He had in essence become a zombie.

For me, the case of John and others like him brings up the real possibility of zombie-ism. The one saving grace in this nightmare scenario is that fully mobile and unrestrained, John-like zombies would soon eat themselves to death. They could not keep ingesting inedible objects without serious consequences. Unless John-like zombies somehow developed a taste for living creatures, the rest of us wouldn’t have much to worry about and after a few days of unrestrained eating they would either be debilitated or dead. All enterprising survivors would have to do would be to hole up somewhere and wait out the ‘zombacolypse’.

Yet the case of John and others like him give hard evidence that an infectious agent or trauma can cause injury to the brain leading to zombie-like behavior changes. This scenario is far-fetched perhaps, but not impossible. Harvard psychiatrist Steven Schlozman elaborates on this idea in his book The Zombie Autopsies: Secret Notebooks from the Apocalypse (Schlozman, 2011). In this fictional account an infectious agent has caused a pandemic. The infection itself is man-made comprising a virus that delivers prion disease to the brain, selectively destroying its higher centers. The virus/prion combination (and a third infectious agent the protagonists try to identify) also infect the body, leaving just enough function to allow the zombie to move and eat. I would suggest that in real life such an elaborate mechanism is not necessary. There are plenty of prospects in the world at large that have the potential to be ‘zombifying’ agents. A small mutation in one of the herpes viruses or T. gondii, a tapeworm variant, a fungus that jumps from insects to humans, or some combination thereof could do the trick. Given these infectious agents our obsession with zombies starts to makes sense. Perhaps in the back of our minds we realize there is the possibility of a real zombie outbreak, that there is something to be afraid of?

Notes
* There is a wonderful video of these snails online at www.youtube.com/watch?v=EWB_COSUXMw
** Video of the worm being removed can be found here:
http://media2.foxnews.com/112008/worm_tumor_700.wmv

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In order to understand zombies it is important to know their origins. Here I would like to trace our conception of zombies back to Haiti and Africa, explain the ‘original’ zombie types, look at how these zombies come into being, and how they are used. I will conclude with a discussion on the psychology of zombies.

The word zombie is African in origin, though it does not have a simple etymological lineage. There are a number of Africa terms that may be related to the modern word zombie. These include *fumbi*, which is the Yoruba word for spirit; *mvumbi*, which in the Congo can refer to either a cataleptic person or the invisible spirit of a person; *ndzumbi*, the Gabon word for corpse; *nsumbi* the Congo word for devil; *nvumbi* the Angolan term for a body without a soul; *nzambi* the Congo word for the spirit of a dead person and the Bantu word for the creator and/or serpent God; and *zumbi*, a word used in the Congo and in Angola to refer to someone raised from the dead (Ackermann & Gauthier, 1991, p. 468).

The *Complete Idiot’s Guide to Voodoo* states that a zombie is an individual whose soul has been captured by a sorcerer (Turlington, 2002). However, zombies may be of two types – a soul without a body or a body without a soul. The former is relatively easy to obtain, while the latter requires extraordinary skill on the part of the sorcerer. This delineation of zombies into two types is related to the African belief that humans have two types of souls or spirits. In Haiti these are known as the *Gros Bon Ange* (good big angel) and the *Ti Bon Ange* (little good angel). Depending on whom you talk to, one or both of these souls can be captured through sorcery. The soul itself may then become a zombie. Called a *zombi astral* or zombie of the spirit (I will refer to it as a spirit zombie), it is held by a sorcerer who can then transform the soul into various forms to carry out his or her bidding, for both good and evil. Conversely, one or both of these souls can be removed from a person, turning them into a soulless body that is under the power of its sorcerer master. In either case, a zombie can be considered to be someone who has problems with their soul(s). Typically, western writers have reported mostly on soulless body type zombies, which are called *zombi cadavre* or *zombi corps cadavre* which can be translated into a zombie of the flesh (I will call it a flesh zombie from here on out). Nevertheless, interviews with Haitian sorcerers indicate that spirit zombies are quite common. (Ackermann & Gauthier, 1991).
There are various ways to create zombies. Spirit zombies can be obtained simply by capturing the soul(s) of a person via magic. This is relatively easy and does not require great skill. Flesh zombies require much greater skill to obtain and may require the use of animal and plant based drugs and poisons in addition to magic. It also may require murder, though some zombies are the result of a soul stolen from a living person. In most cases however, zombie creation requires access to a dead body, regardless of whether the body is freshly murdered or not.

The use of drugs to induce a flesh zombie is controversial (Davis, 1988b; Hines, 2008). Davis (1985) was one of the first people to argue that a zombie state could be induced using a mixture of certain animal and plant based substances. However, he was not able to obtain so-called zombie powders that would have produced the ‘zombification’ depicted in the movie *The Serpent and the Rainbow*, which was based on Davis’ book. However, if we are willing to stretch the point it is possible to come up with a list of useful ingredients for flesh zombie creation:

*Tetrodotoxin* (derived from a number of different types of Puffer Fish) – which causes paralysis, reduces oxygen consumption, and leaves a person fully conscious, Because this toxin does not cross the blood-brain barrier it can induce a profound paralysis while leaving a person fully conscious (Davis, 1985, 1988a). Psychologically this creates a profound sense of helplessness and loss of control.

*Datura Stramonium* (Jimson Weed also known as ‘Zombi Cucumber’)- Hallucinations, schizophrenic (i.e. induces symptoms of psychosis and dissociation), and possibly brain damage. Also thought to reduce or eliminate a person’s willpower (Davis, 1985).

*Zombia Antillarum* (Zombi Palm) – The oil produced from the seeds is thought to be able to activate the senses and wake up the zombified person. The leaves of this plant are also thought to prevent being spied on by zombies (Taylor & Timyan, 2004).

Care must be taken to use right dosage of these toxins as too much will kill the victim. In popular renditions of the creation of zombies the toxins are either ingested by breathing in a powder or by having it come into contact with a cut. After the toxin takes effect the victim is typically interred in a coffin and buried alive. The person being turned into a flesh zombie is fully conscious during the burial and feels profound fear, anxiety, and loss of control. The potential flesh zombie then remains buried and the poison eventually wears off freeing them victim to struggle in their grave. At some point the zombie’s master digs up the victim who is now supposedly compliant and without the will to resist.

The last part of the flesh zombie creation is the most controversial since once the poison wears off there is no reason the person should be compliant. None of the substances listed above, or listed by Davis in his publications, would induce a permanent lethargic-compliant state. Perhaps the zombie has to constantly be drugged, or is brainwashed? Some writers, notably Hines (2008) find this idea far-fetched. A more realistic explanation might be that a lack of oxygen in the coffin during burial could cause some degree of brain damage, perhaps to the frontal lobes. This would explain the blunted affect and lack of volition typical of zombies. It may be that the creation of a flesh zombie produces something akin to a person with a lobotomy.

It also may be true that what I am calling flesh zombies are nothing more than mentally ill people. Certainly some types of psychoses include the lack of volition, lethargy, compliance, and shuffling gait seen in flesh zombies. As Ackermann & Gauthier (1991) state, zombies might be based on the:

*Observation of imbeciles, or certain mentally ill people, especially catatonic schizophrenes,*
demented or amnesic, who wandered off and were sighted later. In countries where illness and premature death are commonly attributed to magic, it would be logical to explain the vagrant mentally ill as resurrected dead without a soul. This would be a purely popular belief; sorcerers could have contributed nothing but rumor. (p. 490)

These authors go on to say that this idea is reinforced by the high incidence of psychosis among the homeless. Regardless of the type of zombie created, they are useful to the person controlling them. Spirit zombies can be used for varied purposes ranging from helping with homework to inflicting disease. Flesh zombies can be used as domestic servants, manual laborers, limited skill workers, as well as bodyguards and assassins (Ackermann & Gauthier, 1991; Davis, 1988).

In essence, zombies make perfect slaves. In fact, aspects of the zombification process echo the forced diaspora of slaves from Africa. It is not too much of a reach to see the similarities between being conscious in a coffin and being in the hold of a slave ship. Both experiences include a complete loss of control as well extreme fright and claustrophobia. Both experiences are also easily fatal, or in the best case scenario result in lifelong degrading servitude.

There is more than just irony in the fact that slaves, and later former slaves, would want to create slaves for themselves. Psychoanalysts would call this a classic case of repetition compulsion. In other words, by repeating the process of slavery, the slaves seek mastery over their situation. This also represents the related phenomena of identification with the aggressor, where someone who is abused by another will take on the aggressive character of the abuser as a defense against their lack of self-worth. That people who were forcibly taken from their homes, subject to torture, horrible living conditions, and forced into long-term servitude would develop these psychological coping mechanisms makes sense. When you are under the total control of another, you can regain a sense of control over yourself by controlling someone else weaker and more vulnerable. Given that in many parts of the world people are still extremely vulnerable and struggling to gain control over their lives, it shouldn’t be a surprise that zombies are in our thoughts**.

*In any case the film “The Serpent and the Rainbow” is well worth watching for it’s depiction of the creation of a zombie with plenty of cinematic flair. Interestingly enough, Davis, absolutely hated the film even though he made quite a bit of money on it. In contrast the Voudun priest Max Beauvoir, who acted in the film loved the movie and it’s portrayal of Voudun, so go figure (Craven, 1988; Marsh, 2010).

**Please consider making a donation for Haitian relief at jphro.org


Zombies – Part 1


Last year I appeared on the Animal Planet television show Lost Tapes in an episode on zombies. Some people who watched the episode thought that I might have been advocating for the existence of actual zombies and that there was a scientific rationale for this. I will go on record now as saying I do not believe zombies as typically seen in movies and television are real. Nor do I believe it is likely that humans could ever be transformed into a zombie-like state (I will talk about some exceptions to this in Part 2). Nevertheless, I do believe zombies are important and have a psychological existence within our psyches.

It seems we have zombies on our minds. My theory (shared by almost every other psychological writer on zombies) is that zombies represent the lower, more bestial aspects of ourselves that we typically keep repressed. These aspects of ourselves cause a great deal of anxiety which we defend against through repression. What about these aspects? They are primitive, oral, and aggressive. Hence the zombies predilection for eating people alive. Zombies may grab you with their hands, but it’s their mouths and teeth that kill you. The preferred food for zombies is brains. This makes sense when we understand zombies to be fundamentally irrational. Both actually, and metaphorically, zombies seek to destroy our higher thoughts and aspirations.

Zombies may also represent fear of the mob. We like to think ourselves safe within the bubble of our lives. But the outside world is frightening. When we read about crime in the paper or watch the news, it sometimes seems as if everything outside is dangerous. It is as if other people are mindless automatons bent on mayhem and destruction. Or as Freud puts it in The Future of an Illusion (1927):

“They will have to admit to themselves the full extent of their helplessness and their insignificance in the machinery of the universe; they can no longer be the centre of creation, no longer the object of tender care on the part of a beneficent Providence. They will be in the same position as a child who has left the parental house where he was so warm and comfortable. But surely infantilism is destined to be surmounted. Men cannot remain children for ever; they must in the end go out into ‘hostile life’. We may call this ‘education to reality.’” (p. 48).

We may be shocked at the realization of the senselessness of a zombie infested world, so mindless and irrational. A school principal is shot for no apparent motive. His attacker is zombie-like in his mindless, unthinking aggression. The same for school shooters, bank robbers, gang members, disgruntled post office employees, etc. Or perhaps there is a motive – a mugging where someone loses their life over the most trivial possession – but this is also revealed to be another case of zombie-like selfish aggression. Because who in their right, logical, thinking, mind would perpetuate such acts of violence against their fellow human beings? From the aspect of our rational mind most violence starts to resemble the action of zombies. Better to stay away from places where people are gathering. Their cannibalistic, orally aggressive urges linger just below the surface ready to spring forth at any moment. It is better to stay locked up inside, safe in a well-defended home, stocked with food… and plenty of ammo.
Yet, there is always the insidious threat that someone inside has already been infected and could turn zombie at any time. Best to keep a close eye even on those we know best. This type of paranoia is also an aspect of zombies. In an excellent scene in the television show *The Walking Dead*, two of the protagonists smear themselves in zombie blood and guts so they can go amongst the undead horde undetected. Apparently the zombies detect normal humans by smell and the fetid offal masks this. The heroes shuffle along pretending to be zombies, while the ‘real’ zombies eye them curiously, sniffing at them. The ruse works until it starts to rain, their disguise is stripped away, and they are revealed as human.

This scene reminded me of the Kafka story – *The Metamorphosis*, where the protagonist is no longer able to go through the motions of fitting into human society (in this case because he has turned into a giant cockroach). His facade of humanity removed, he is revealed as a monster. *The Walking Dead* episode delivers a message that is just the opposite! We must act like monsters to be part of a deranged society, and if our zombie-like attributes are stripped away we will be persecuted for our humanity. How many of us can relate? How many of us at one time or another have had to metaphorically cover ourselves in something disgusting in order prevent negative attention to our true selves? Perhaps this is the adaptation we must make to venture out amongst the ‘hostile life’, the ‘education to reality’ that allows us coexist with our fellow zombies?

References:


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**Lost Tapes**

- September 23, 2010

Kevin will be making his on-camera TV debut as a bizarre creature ‘expert’ in the next few weeks. The show is Lost Tapes on the Animal Planet network. Times and subjects of the episodes are:

09/28/10 10:00 PM Zombies

10/05/10 10:00 PM Strigoi

10/05/10 10:30 PM Poltergeist

10/19/10 10:00 PM Wendigo

Leave a comment
Capgras Syndrome is a misidentification syndrome where a person holds a delusion or belief that an acquaintance, typically a close family member, has been replaced by an identical looking imposter. This syndrome can be transient, developing very quickly after a brain injury, or can take a chronic form where the delusion is long standing. The syndrome is named after Joseph Capgras lived 1873-1950 French psychiatrist who first described the disorder in a 1923 paper and used the term ‘illusion of doubles’ to describe a case of woman who had various doubles that had taken the place of people she knew. Culture-bound syndromes are recurrent geographically specific patterns of aberrant behaviour and troubling experience which may or may not relate to the nosological structure of international psychiatric classificatory systems. While culture-bound syndromes may wrongly be seen as central to transcultural psychiatry, a description of notable syndromes will be discussed here due to their prominence in classificatory systems and their frequent educational interest.