

## Minutes of Meeting Niagara Secular Humanist

January 14, 2012

Location: Polish Legion, St. Catharines

1. John read the minutes of the December meeting. Horst asked first-timers to introduce themselves. Roy read the Treasurer's Report.
2. The speaker was NSH member, Troy Roberts. His subject Pseudoscience.
3. Troy started by answering the question "Why do I care? Why can't I let people believe what they want to believe? Pseudoscience and other beliefs in things that cannot be proven can be a threat to a person's health and well-being. Everyone has such beliefs but it is better to discard ideas that can't be proven, methods and concepts that simply don't work. If something cannot be proven to work it probably doesn't work.
4. If something that is now part of "alternative medicine" is proven to work it is no longer "alternative."
5. Troy talked about homeopathy, a strange concept probably based on the belief that "like cures like," but putting forward the theory that "water has memory" and that a more dilute solution is actually more effective even if it is so dilute that it contains not a single molecule of the active chemical. Why doesn't powdered ice tea become stronger the more you dilute it? Not only does this sound ridiculous, homeopathic "medicines" have been tested and proven not to work.
6. People become invested in what they believe.
7. Troy discussed the placebo effect. Medications and methods that have no proven effectiveness seem to work if the person believes they work. This probably explains the popularity and apparent effectiveness of many popular alternative medications and methods.
8. Chelation therapy is a real treatment that binds heavy metals, but is being promoted for conditions for which it has no real application and has harmful side-effects. The theory that mercury might cause autism has been discarded.
9. Colloidal silver is another ineffective treatment with harmful side-effects that is being heavily promoted. Troy suggested that people think gold might be a good thing to take internally because it is seen as a "pure mineral." In fact the gold sold on-line is gold chloride.
10. Magnets are another popular treatment, heavily endorsed by athletes and other celebrities, but completely unproven. The idea that a magnet might attract the iron in the blood has been demonstrated to be untrue.
11. Troy moved away from the medical area to discuss dousing. The apparent real experience is based on the ideomotor effect which causes muscles to move without the person being aware that the instruction to move came from the brain.
12. Pattern recognition is very difficult. Education should help children learn how to be skeptical about things they read or hear and to understand that what will work can be shown to work.
13. This talk produced a lively discussion. Troy was challenged on several occasions. Clearly there are problems in science, medicine and, in particular, the pharmaceutical industry which also require scepticism. The meeting ended at about 9 PM.