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Spice: Enacting Good Judgment

Ever since our elementary school years, we've been taught to "just say no" to drugs. We've heard the horror stories and seen the gruesome pictures of what drugs such as LSD or methamphetamine can do to the minds and bodies of those who abuse them; naturally, most of us avoid the harmful substances specifically outlined and assume that by following these unambiguous guidelines, we're fine. Although it's seemingly ingrained in us to steer clear from illegal narcotics, should we believe that using *legal* sedatives to reach a substance induced high is acceptable? On today's scene, teenagers are beginning to think so. Spice, also known as K2, has cunningly crept its way into the bodies of our youth. Labeled and sold as "incense" in local North Carolinian gas stations and convenient stores, Spice hasn't quite received the infamy it deserves. In fact, Spice's name festers among today's uninformed youth as a legal pleasure, euphemizing its most foreboding threats, which in some cases, is hospitalization. So what should be done with this hazard that hampers and lurks within today's society? What could possibly stop it from hindering the minds and bodies of those who come in contact with it? The answer is simple: legalization.

Classified as a synthetic cannabinoid, users report that K2 gives a high four times that of THC due to the synthetic chemicals cannabicyclohexanol, tocopherol, and dimethylhexyl (Griffin). Few have an easy time pronouncing these ingredients; fewer know the effects they have on the body. Up until mid-2010, research and studies on this substance's effects on the

body were scanty. One of the researchers involved in a new study is Dr. Anthony Scalzo, a toxicologist at St. Louis University. In an interview with The Associated Press, he reported seeing more than thirty cases of Missouri teenagers having severe agitation, experiencing hallucinations, befalling elevated heart rates, suffering frequent vomiting, enduring seizures and other reactions to the substance (Associated Press). Most of the reactions that these patients were experiencing are side effects usually not connected to marijuana. Studies have yet to be conducted on humans, but St. Louis studies show that, in mice, Spice can lead to a lower body temperature, partial paralysis, and the temporary inability to feel pain, according to the federal Drug Enforcement Agency (Associated Press). Why does this substance, which is so similar to THC, have such different effects from marijuana? The effects lie in the chemical reactions that occur in the brain during the time of ingestion.

Drug and Alcohol Dependence, the study performed by Dr. Huffman and Dr. Martin of the Medical College of Virginia, shows that JWH-018, the chemical in Spice that mimics the structure of THC, binds to the CB1 receptor, which receives proteins, in the brain with approximately four times the potency of the naturally-occurring THC (Griffin). JWH-018 binds to the CB2 receptors with an equal likeness – CB2 receptors are involved more with pain and inflammation (Griffin). In simple terms, natural cannabinoids affect the brain's CB1 receptors more than the CB2 receptors; synthetic ones affect CB2 receptors. JWH-018's affects on the brain may, thus, lead to serotonin syndrome, a potentially fatal but relatively rare disorder.

Manufacturers of the synthetic cannabis Spice claim it includes “medicinal” herbs that produce serene, cannabis-like intoxication. These herbs that are listed on the packaging of Spice include Honeyweed and *Zornia latifolia* (a perennial flower); however, when

German laboratories analyzed the product, it was found that many of the "fingerprint" molecules expected to be present from the claimed plant ingredients were not in the product whatsoever. This proposes that the ingredients listed on the package may actually not be included in the product. Further study into the chemical contents conducted by several German laboratories in November of 2008 concluded that they are not entirely clear what the herbal ingredients are, who produces the synthetic tocopherol (one of the THC imitating chemicals), or whether the cannabis-like results of smoking the substance is caused by any of the "herbs" that are potentially included (Hauptwirkstoff). So then, what exactly is being sold? What is being ingested, and what affects does it have on the body? Terrifyingly, these questions currently can't be answered by scientists.

As a teenager, one can't escape talk about smoking K2: discussions about it lurk in the hallways at Croatan High School. Conversing about this mysterious K2 and its effects with a frequent user was slightly more disturbing. This user began smoking this substance at the beginning of the summer after attending a party with friends. "It didn't seem so different from weed," he recalled. "It was a weird shade of purple – but it appeared safer than all of the other drugs I've been told about by drug campaigns. I mean, it came from a package that was bought at the store. How dangerous can something be if it is sold at the same place aspirins are?" It's seemingly dependable logic. "To me, the high is different than the high I get from weed," he admitted. "It makes me more irritable than weed does, but the first time I used it, I experienced a more intense high. But now, every time I use it, the high gets less and less strong." Users also claimed that, after using it several times, the positive effects begin to go away, and the negative side effects, such as extreme nausea, strong dysphasia, increased

blood pressure, and even negative hallucinations, were more prevalent. After interviewing several other users, the answers were extremely similar. The highs that the users experience aren't as similar to the highs they experience with marijuana as many tend to believe. The effect is either stronger or weaker, depending on the brand they use. Types such as K2 Summit and Blonde have "a harsher texture" and a "burning sensation" when inhaled. "I'd rather smoke marijuana than Spice," admitted one user. "K2's cheaper types tend to taste perfumey and fake. But it's easier to get a hold of Spice, so I smoke it more often. Plus, if I'm caught on campus with K2, they can't do anything to me. It just seems safer and way easier than weed." Perhaps externally, but K2 is indefinitely more dangerous than weed.

In 2009, the National Poison Control Centers took 112 calls related to herbal incense product poisoning (Associated Press). In 2010, that number has grown, estimated to be over 1,500 calls through September. Due to the misinformed word on the street, Spice's usage rates have skyrocketed since its debut in the United States in 2004. One of Spice's more recent victims is Terry Clingerman, a 27-year-old from Lafayette, Indiana. Terry is currently suffering inexplicable pain after smoking two joints of Spice per day over a period of two months. "It feels like every muscle in my body has been torn," he tells local news during an interview while laying on a hospital bed. Terry, after smoking a bowl of Spice, woke up in the middle of the night entirely incapable of moving his lower extremities; he is suffering from lower muscle deterioration and isn't expected to fully recover in more than two months. But Spice doesn't just destroy the body of a consumer, it destroys the lives of their families. Terry's mother states that "she won't rest until the dangers of Spice are known" and that "mothers everywhere can be rest assured that this poison is off the streets" (WXINTV).

Stories like Terry's aren't as uncommon as many smokers may claim. It's estimated that at least two cases like this are brought to medical attention every month.

So, if smokers nor scientists know exactly what it is that is being smoked and if consumers are facing health problems that surpass the thrill of smoking a substance that isn't even made to be ingested, why do they continue to sell it? Spice is dangerous because it's new – there is simply not enough information that can allow it to be sold in tobacco shops across the United States. K2 needs to be illegalized. It poses a threat to not only the minds and bodies of those who befall its intoxication, but also questions the morals we have instilled in society. We should be able to determine whether or not something is wrong based on our ethics and not rely entirely on whether something is legal or not.