

UNIVERSITY OF NORTH DAKOTA SCHOOL OF LAW  
Intellectual Property  
Fall 2009

Eric E. Johnson  
Assistant Professor of Law

---

FINAL EXAMINATION

---

**Limited open-book. Three hours.**

**Write your exam number here: \_\_\_\_\_**

**All exam materials (including this booklet and your response) must be turned in at the end of the period. You will not receive credit unless you return this booklet with your exam number written above. Do not turn the page until instructed to begin.**

Notes and Instructions

1. Assume that today's date is December 7, 2009.
2. You may write anywhere on the examination materials — e.g., for use as scratch paper. Only answers and material recorded in the proper places, however, will be graded.
3. Your goal is to show your mastery of the material presented in the course and your skills in analyzing legal problems. It is upon these bases that you will be graded.
4. During the exam: You may not consult with anyone — necessary communications with the proctors being the exception. You may not view, attempt to view, or use information obtained from viewing materials other than your own.
5. After the exam: You may discuss the exam with anyone, except that you may not communicate regarding the exam with any enrolled member of the class who has not yet taken the exam.
6. Unless expressly stated otherwise, assume that the facts recited herein occur within one or more hypothetical states within the United States. Base your exam answer on the general state of the common law and typical statutory law in the United States, including all rules, procedures, and cases as presented in class, as well as, where appropriate, the theory and history discussed in class. It is appropriate, if you wish, to note differences between minority and majority approaches in your answer, as well as statutory or other differences among jurisdictions.
7. Unless otherwise explicitly stated, all references to patents and patent applications are to be understood as being in and of the United States, nonprovisional in nature, and of the utility kind (as opposed to plant or design).
8. Note all issues you see. More difficult issues will require more analysis. Spend your time accordingly.
9. Organization counts.
10. Read all exam question subparts before answering any of them — that way you can be sure to put all of your material in the right place.
11. Feel free to use abbreviations, but only if the meaning is entirely clear.
12. **Bluebooks:** Make sure your handwriting is legible. I cannot grade what I cannot read. Skip lines and write on only on one side of the page. Please use a separate bluebook for each subpart.
13. **Computers:** Please clearly label each subpart of your answer.
14. This exam is "limited open book." The only materials to which you may refer during the exam, other than this exam booklet, scratch paper provided as part of the exam administration, and any special references specifically authorized by the Dean of Students office, are: (a) the authorized copy of the Intellectual Property Wypadki, which will be distributed to you in the exam session, and (b) a "reference sheet," consisting of a single 8.5-inch-by-11-inch sheet of paper, upon which anything may be written and/or printed, including on both sides, front and back, (c) sticky tabs labeled with subject headings to insert into the wypadki, if you so choose. You may not consult or access any other piece of paper, including, but not limited to, a copy of the Intellectual Property Wypadki that you have printed out yourself. No materials may be shared during the exam.
15. Do not write your name on any part of the exam response or identify yourself in any way, other than to use your examination I.D. number appropriately. Self-identification on the exam will, at a minimum, result in a lower grade, and may result in disciplinary action.
16. Good luck!

## “Gulp of Genius”

Axel Albright was 33 years old and still living with his mom. The reality was beginning to dawn on Axel that his band, Punishment Duty, might not make it big after all. It was time to figure out something else do with his life. But what? In the spring of 2009, Axel began taking business and nutrition-science classes at the local university. He also signed up for a class in animal behavior.

One night in February, while studying all night for a midterm, Axel downed far more energy drinks than anyone should. In a blaze of caffeine- and taurine-powered cognition, Axel suddenly realized what he would do with the rest of his life: He would be an energy-drink entrepreneur.

Energy drinks, especially popular with students, are soft drinks that are marketed as having the ability to improve mental functioning and athletic performance. They often contain large amounts of caffeine, as well as various vitamins and herbal supplements which are believed to have properties that enhance alertness, strength, and endurance.

Axel began experimenting. Soon he had tried more than 200 recipes, testing all of them on himself. One afternoon, on March 19, 2009, while taking a break from his mixing

and stirring, Axel wandered into the greenhouse he maintained behind his mom’s garage. There, he examined his flowering *Sapindus saponaria* vine (scientific name: *Seqacer sapinruta*). In addition to the usual billowy white flowers, Axel noticed that one small branch of the vine was producing gnarled, thistly flowers with a lavender color. Upon bending down to smell them, he found that they had a unique and very pleasant scent. Axel recorded his observations in his gardening notebook, calling the variety “Lavender Lightning,” which he abbreviated “LL.”



**Fig. 1: Illustration of *Seqacer sapinruta* 'Lavender Lightning.'**

Delighted with finding these new, strange flowers, Axel plucked a several of the blossoms and took them

into the kitchen to inspire him as he continued working on his energy drink. Staring into space, trying to think of what to try next, Axel found his gaze resting on the Lavender Lightning flowers. Hmmm, Why not try them?

Axel proceeded to make an extract of the blossoms, and then added the thick liquid to a mix of certain quantities of caffeine, vitamin B12, creatine, taurine, ginseng, maltodextrin, orange extract, pineapple juice, sugar, and carbonated water. The resulting mixture smelled palatable. He documented it in his notebook as Potion No. 209. Then, he gulped it down.

Within minutes, Axel felt unusually alert. Sitting down to a set of business finance problems, he found that he was able to work through the math much faster than he was usually capable of. The energy drink he had just created seemed to Axel to be extremely effective. Yet Axel realized that the concoction might just be working on him through the placebo effect. There was no way to know for sure if he was on to something really big unless he conducted experiments in a more scientific manner. Axel hopped in his car and drove to the pet store where he bought dozens of white mice. Using techniques learned in his animal behavior class, Axel systematically tested alternative forms of the beverage on the rodents. Axel found that LL-sapinquata extract, by itself, had no beneficial effect on the ability of the mice to learn mazes. Ginseng and pineapple juice, either alone, or in combination with any one other ingredient, also appeared to have no effect. But when the LL extract was combined with both ginseng and pineapple juice, the results were astonishing: The mental abilities of the mice improved wildly. Further testing revealed that sapinquata extract was effective only if it came from the Lavender Lightning variety. The regular white-blossom variety did not have the same effect.

After making a complete investigation, Axel found that the other ingredients in Potion No. 209 seemed to have, at best, only a mildly abetting effect on energy-level and mental acuity; nothing one wouldn't expect. Ginseng, pineapple juice, and LL-sapinquata were the key ingredients. But since the other ingredients were common in energy drinks, Axel decided to retain them. With the ingredient list set, Axel then tried altering the portions to see if he could make the drink taste better. But the tinkering did not improve anything. On March 30, 2009, Axel completed his experimentation and made up his mind: Potion No. 209 would be the energy drink that would make him rich.

The first thing Axel set about doing was making sure he could get plenty of the Lavender Lightning variety of sapinquata. Axel found that he could reproduce the LL variety



Fig. 2: Packaging of three of the best selling energy drinks in the United States. From left to right, Red Bull, Rockstar, and Monster.

asexually by grafting it on to existing sapinquita vines. By October 12, 2009, Axel had several flowering vines of the LL variety thriving in his greenhouse.

The next thing to do was to get financing and set up some manufacturing capacity. Axel's uncle, who owns a larger commercial bakery, agreed to finance Axel's start-up costs and to allow him to operate out of a portion of the bakery facilities. Axel was on his way. Now he just needed to think about marketing.

For the time being, he put off consideration of a brand name. Instead, he concentrated on packaging. While looking through some design magazines, he read about a new technique developed for aluminum stamping, which is how aluminum beverage cans are fabricated. With the new stamping technique, a series of tiny scores are made in the aluminum, creating a shimmering rainbow pattern whenever a light is shined on the surface. Besides creating the attractive visual effect, the article said, the scoring also made containers created from the aluminum less likely to explode when the contents were frozen. Axel was impressed. He decided he would use cans manufactured with the new technique to give his product an eye-catching look that would distinguish it from other brands.

To create radio commercials for the beverage, Axel went back to his band to get their help in composing a jingle. He sat down with his bandmates Russ Ryland (guitar), Fast Felix (bass) and Vern Vinson (drums) in his mom's garage. Since this was for his own business venture, Axel explained to the group that the song would be owned solely by him, not by the band. But for their services in writing and recording the song, Axel would pay Russ, Felix, and Vern each \$1,000 from the start-up money. There were smiles all around. Russ, Felix, and Vern were psyched to get the cash, and they were happy to help their friend.

They started jamming, and they kept at it all day. But after hours of work and two visits from the police because of noise complaints, they had nothing. Finally, when they were getting tired and slap-happy, the band spontaneously found their way to creating a parody of a famous Simon and Garfunkel song.

"The Sound of Silence," penned by legendary songwriter Paul Simon in 1964, was born of the societal upheaval of its time and reflected the somber mood of America in the aftermath of the assassination of President John F. Kennedy. The slow-tempo folk anthem is instrumented with delicate guitar and softly sung vocal harmonies. Some of the original lyrics are as follows:

Hello darkness, my old friend  
I've come to talk with you again  
Because a vision softly creeping  
Left its seeds while I was sleeping  
And the vision that was planted in my brain  
Still remains  
Within the sound of silence

...

And in the naked light I saw  
Ten thousand people maybe more  
People talking without speaking  
People hearing without listening  
People writing songs that voices never shared  
No one dared  
Disturb the sound of silence

“Fools,” said I, “you do not know  
 Silence like a cancer grows  
 Hear my words that I might teach you  
 Take my arms that I might reach you”  
 But my words like silent raindrops fell  
 And echoed in the wells of silence

The version that Punishment Duty created was quite different. It was a fast-tempo scream-fest in a different key fueled by loud, aggressive bass, guitar, and drums. Heaps of audio feedback and electronic distortion spiked the mixture. These were the lyrics:

Paul Simon liked to smoke his bong<sup>1</sup>  
 He fell asleep while writing songs  
 He coulda made music worth listening  
 With a jolt of sapinquta and ginseng  
 Hippies writing songs for elevator-muzak tracks  
 That bunch of hacks  
 Here comes the sound of LOUDNESS!

With the recording in hand, Axel contacted a local radio station and bought a large advertising and promotional package for \$10,000. The package gives him a slew of radio commercials, a live interview on the morning show, and a kick-off promotional event on New Year’s Eve, December 31, 2009, when Axel will begin distributing his beverages to the public. The radio commercials will start running this Thursday, December 10, 2009.

Now there was one thing left to do: Talk to the lawyers. First, Axel consulted attorney Cassie Canaday, who has a practice concentrating on regulation by the federal Food and Drug Administration. Cassie told Axel that all of his ingredients would have to be declared and listed on the beverage containers. Axel was hoping that he could hide most of the ingredients as “natural flavors” or “spices,” but Cassie explained that all ingredients that are added for any reason other than

<b>Nutrition Facts</b>	
Serving Size 1 Can	
<b>Amount Per Serving:</b>	
<b>Calories 180</b>	
	<b>% Daily Value*</b>
<b>Total Fat</b> 0 g	<b>0 %</b>
<b>Sodium</b> 0 g	<b>0 %</b>
<b>Total Carb.</b> 49 g	<b>16 %</b>
Sugars 48 g	
<b>Protein</b> less than 1 g	
Not a significant source of other nutrients.	
* Percent Daily Values are based on a 2,000 calorie diet.	

INGREDIENTS: CARBONATED WATER, SUGAR, MALTODEXTRIN, CAFFEINE, TAURINE, VITAMIN B12, GINSENG, CREATINE, PINEAPPLE JUICE, SAPINQUTA EXTRACT, AND NATURAL FLAVORING.

**Fig. 3: The FDA-required product labeling approved by Cassie Canaday.**

<sup>1</sup> A “bong” is a device for inhaling marijuana smoke. Simon and Garfunkel’s hit “The 59th Street Bridge Song (Feelin’ Groovy)” has been widely associated with smoking marijuana.

purely for the purpose of flavor must be specifically declared. That included ginseng, pineapple juice, and sapinquita extract. But, Cassie told Axel, the label could simply list “sapinquita extract” as an ingredient without specifying that it was from the Lavender Lightning variety. Cassie approved the label shown in Figure 3.

Last of all, there was the matter of talking to a lawyer about the intellectual-property issues. To prepare for his meeting, Axel did some more thinking about the name of the product. He settled on two candidates: His favorite is *Gulp of Genius*. As a backup, he chose *Tyrannosaur*. He did some research and thinking about each:

- ***Tyrannosaur*** – This name comes from the famous predator dinosaur *Tyrannosaurus rex* (often abbreviated “*T. rex*”), which is well-known for its large three-clawed feet and enormous mouth lined with razor-sharp teeth. Axel thinks the Tyrannosaur mark may be a good one from a business perspective, since many popular energy drinks have names relating to frightening carnivorous animals, including “Monster” and “Piranha.” A search reveals that a federal trademark registration was filed on January 12, 2005 for “T-REX ENERGY DRINK FORTIFIED WITH VITAMINS” for the category of non-alcoholic fruit juice based beverages and energy drinks. The mark was, however, apparently never used in commerce. The USPTO declared the mark abandoned as of February 9, 2009. An internet search finds nothing that would indicate that Sales Children International Inc., the former registrant, is planning on introducing a product with the mark anytime in the future.
- ***Gulp of Genius*** – This is the mark Axel is hoping to use. It’s quirky and very unique – especially for energy drinks. Research reveals that there are no marks using both the words “gulp” and “genius” on the federal register for any product category, much less energy drinks. But Axel is concerned about possible trademark issues with the convenience-store chain 7-Eleven. “Gulp” and “Big Gulp,” are federally registered trademarks owned by 7-Eleven for soft drinks sold for consumption “on or off premises.” 7-Eleven also owns trademarks on combinations of “Gulp” with various other words for both soft drinks and candy. The filing dates for “Big Gulp” and “Gulp” were, respectively, 1978 and 1989. Also of concern to Axel is a federal registration for “Blue Genius II” by Amerikal Nutraceutical Corp. for “vitamins, herbal supplements, mineral supplements, nutritional supplements, meal replacements in bar, drink, powder and shake form, and meal supplements in bar, drink, powder and shake form,” with the first use in commerce having occurred in 2004.

There’s also another concern Axel has. Doing an internet search on the plant genus *Seqacer*, he found U.S. Patent No. 6,543,210, “Method of Enzymatic Breakdown of Fibrous Proteins in Synthesis of Prepafaranol,” issued April 8, 2003, from an application filed January 26, 2002.

The ‘210 patent concerns a more efficient way to synthesize prepafaranol, a drug used for anesthesia. The invention concerns using the proteolytic enzyme bromelain to break down fibrous proteins found in the leaves of the plant *Seqacer philates*, which contains chemical precursors needed to make prepafaranol. The problem, as Axel sees it, is that all pineapple juice naturally contains bromelain, and the ‘210 patent purports to be applicable to any plant in the genus *Seqacer*, which would include not just *Seqacer philates*, but also *Seqacer sapinquita*. Claim 1 in the ‘210 patent is as follows:

**I claim: 1. A process whereby bromelain causes the proteolysis<sup>2</sup> of any proteins of *Seqacer*.**

Clearly, the inventor of the '210 patent, Iakovos Imasaki, was not thinking about *Seqacer sapinquata*. The specification of the patent only talks about *Seqacer philates*, which is the only member of the *Seqacer* genus found to have any medicinal properties. Also, it is clear that the '210 patent was aimed at the breakdown of fibrous proteins from leaves – something that would not find its way into Axel's sapinquata extract. And just as obvious, Axel has no interest in trying to synthesize prepaferanol. But the claim in the '210 patent seems very broad. And from what Axel has learned of nutrition science, in any given batch of Potion No. 209, there is going to be some bromelain causing proteolysis of some proteins in the sapinquata extract. It's a natural consequence of mixing the two ingredients.

With his dream on the verge of becoming reality, Axel has walked into your office. He is brimming with questions. Does the '210 patent present a problem? Can Axel use either of the two names he has picked out for his product? What pitfalls, if any, should Axel be aware of as he embarks on his entrepreneurial adventure? Might he be liable to anyone by proceeding with his plans? And to what extent can intellectual-property law protect his fledgling enterprise? If a bigger company with more money and distribution capacity quickly copies his product, he stands to lose everything.

Axel needs your help. What will you tell him?

### **QUESTION 1 (approximately 90% of the exam grade)**

Analyze Axel Albright's legal position. Organize your response as follows, clearly labeling the subparts:

*Subpart A:* Discuss issues concerning copyright, if any.

*Subpart B:* Discuss issues concerning trademark (including trade dress, unfair competition, and related doctrines), if any.

*Subpart C:* Discuss issues concerning patents and trade secrets, if any.

*Subpart D:* Discuss issues concerning other relevant intellectual-property doctrines, if any, that are not specified for subparts A through C.

A few things to keep in mind:

The subparts will not all be given equal weight. The subpart structure is provided for organizational purposes only. Thus, it may be entirely appropriate for one subpart to be answered with considerable brevity, while another subpart might require very detailed analysis. You should divide your time proportionately among the subparts according to which ones require the most discussion and analysis. Plan ahead to put information where it belongs.

Also, please apprise Axel of the specific dates for any deadlines that apply to any filings or applications that you advise him to consider making in the future.

### **QUESTION 2 (approximately 10% of the exam grade)**

Pick one aspect of intellectual property law that we learned about over the semester that seems wrongheaded. Explain your choice using policy arguments and theory.

---

<sup>2</sup> The breaking down or degradation of proteins, such as that caused by bromelain.