The Social Life of Speed

By Anisha Chadha

Advised by Holly Peters-Golden and Erik Mueggler

Senior Honors Thesis

Department of Anthropology, University of Michigan - Ann Arbor

April 2013

Copyright © by author

Acknowledgments

I am indebted to all the following people, without whom this thesis would not have been possible.

My mother and father

Any work I do is only possible because you have given me my lifeblood, my education and your unyielding love and support.

Not to mention every book I have ever wanted.

Dr. Holly Peters-Golden

I cannot begin to express how much having you for a teacher has changed my life. Your classes and our conversations these past three years have given me a deep love of medical anthropology. Thank you for being such a wonderful and inspiring mentor.

Dr. Erik Mueggler

Thank you for patiently leading our class through this journey. In our brief meetings you gently pushed me to understand not only what I was doing, but also why I was doing it. Your constant faith and encouragement gave me confidence in my research and myself, and I am so grateful for all of your guidance and support.

Perry Sherouse and Julie Blaszczak

Thank you for your readership, mentorship, thoughtful insight, and moral support.

My honors thesis cohort

I am proud to be able to call a group of such passionate, intelligent, caring people my close friends. Thank you for putting up with my incessant rambling about drugs. Your camaraderie has been invaluable.

My sister, Aditi, and my friends

Thank you for keeping this project in mind this year and constantly sending me helpful information, as well as for bearing with me when I went to the zoo.

Everyone who interviewed with me

Thank you for taking time out of busy schedules to meet with me. It was a privilege to listen to your personal stories. The enthusiasm and openness you brought to our conversations made me feel like I was doing something that mattered. "I don't do drugs. I am drugs."
-Salvador Dali

Table of Contents

Introduction	1
Part I: Production and Medical Use	14
Part II: Consumption and Student Life	33
Part III: Distribution and Exchange	66
Conclusion	88
Works Cited	90

Introduction

If you sit down at a desk and open the top drawer, you might see a Post-It Note, deliberately folded in a manner that uses the adhesive to form a small secure envelope that enables its contents to be protected through transportation and time. If you remove this package from the drawer and unfold the makeshift pocket, you might see two perfectly identical pills. And if you automatically recognize these pills, you might be any average American university student who probably has no business, and yet every reason, to have them.

Each pill is exceedingly delicate, barely the size of a child's fingernail, and lighter than the slip of paper within which it was concealed. The pills are thin, oval-shaped cylinders that tend to lie flat, as they do not have much height to offset the relatively larger area of their oblong faces. They are characteristically orange, opaque and chalky, and have a slightly grainy texture when sandwiched between fingertips. Each pill has a deep line bisecting its width on one face, on either side of which a number has been methodically engraved, often a two on the left and a zero on the right; together they indicate dosage. On both faces, two symmetrical grooves have been ticked from the lengthwise apexes, yet they are shorter and shallower than the perpendicular depression, and do not extend far into the center of the pill. Collectively, these five lines give the impression that no matter how intact, singular, and whole this pill may seem, it was not intended to remain that way.

The pill is an instant release Adderall tablet, hereafter referred to as Adderall IR, which, along with its capsular counterpart Adderall XR, extended release Adderall, is one of the most commonly prescribed stimulants in circulation today. Prescription stimulants are amphetamines, or amphetamine like compounds, such as methylphenidate or

lisdexamfetamine. Drugs that promote wakefulness, attention and focus, like prescription stimulants, are colloquially referred to as "uppers" or "speed."

In addition to Adderall, common prescription stimulants include Ritalin, Vyvanse, and Concerta, but for the purposes of this paper, I will use the term "Adderall" to refer to prescription stimulants at large. I chose to do this because Adderall is currently one of the most commonly used prescription stimulants (Teter et al. 2006), and because many university students refer to it by name. I became so used to hearing and saying the term "Adderall" through my first three years at the University of Michigan, that when I started my ethnographic research my senior year, it seemed only natural that the students I interviewed and I were casually using the term "Adderall" to refer to prescription stimulants in our conversations, almost as if it were a third person in the room. It felt natural to use the proper noun "Adderall" to describe this class of drugs instead of continually calling them "prescription stimulants" because they were personified to such a great extent through my conversations with students.

Adderall is prescribed as treatment for Attention Deficit Hyperactivity Disorder, hereafter referred to as ADHD. It is also prescribed for Attention Deficit Disorder and my interviewees often referred to the conditions interchangeably. For clarity, I will use "ADHD," as it is the more encompassing term. The ADHD diagnosis has become more common over the last decade, to the point that now eleven percent of United States children have the diagnosis (Schwarz and Cohen 2013). Through my study, I learned that college students are continuing to be prescribed Adderall into their early adulthood, and that others have been diagnosed after coming to university. So many people are currently prescribed Adderall that most students in their undergraduate years are very familiar with the pill and its

effects. Because Adderall induces focus, concentration, wakefulness and attention, many students engage in off-label use of Adderall to enhance their academic performance, and this phenomenon has been reported in the media (Talbot 2009), as well as academic sources (Greely 2008). In fact, my first observations of student use of Adderall were of my peers using it for academic work; only later did I realize that Adderall is used as a prescription medication, and in a variety of other contexts as well.

My very first encounter with prescription stimulants occurred at the beginning of my freshman year at the University of Michigan. Perhaps due to my social circle, school environment, childhood naïveté, or a simple lack of observation on my part, I had not heard of these drugs until then. Two weeks into my first term at the university, I decided to undertake the venture of preparing for my first college exam, which was scheduled to take place two weeks from then. The subject was organic chemistry, and although I am now thankful to have some background in the topic as it has helped me for this project, at the time, I had no great inclination to learn about carbon structures. Even if I had more interest in the material, my general ineptitude in the subject quickly killed any amount of effort I exerted. It only took me two days to realize that I would need some help if I wanted any hope of doing well. So I found five students with whom to study, and planned to meet them later in the week. When I arrived at the library, the rest of them were clustered around a table in a private study room off of the main room. I joined the group, and we began working through practice problems. About half and hour later, one of the students in the room made a comment about wanting to stay awake well into the night to continue studying for our exam. He then extracted a tablet from his backpack, and through a clever use of two pen caps, one

MCard¹ and seemingly unlimited brute force, calmly ground up the pill and neatly collected the fine powder in a line on the edge of the table. He then rolled a paper straw from a scrap of chemistry homework, and snorted the drug in one clean swoop. At the beginning of this fiveminute process, one of the women in the room, a close friend of the man with the pill, had stated that she did not want to see this happen and had stepped outside. Not entirely sure of the details of what I had observed, compounded by the fact that I did not know the other three people in the room, none of whom seemed to know how to react either, I decided to pack my books and join her in the main lobby. Away from the others I asked her what the boy had snorted, and she had told me offhandedly that it was just Adderall, but that she was afraid of being caught in the same room with it in public. In light of the high prevalence of prescription stimulant drugs on college campuses (White et al. 2006), this instance would not have been particularly revelatory to most people. However, my freshman self had no way of knowing the frequency with which Adderall would insert itself into my future conversations and interactions, and that experience became the formative one in terms of my intrigue with these drugs.

Motivations

I have always been drawn to the concept of a small substance being able to greatly impact human lives, and drugs, more specifically human-drug interactions, have always been of interest to me. Drug use is a beautiful and powerful lens that can be used to understand cultural practices. The way humans use drugs illuminates the ways in which they interact with their physical environment. Furthermore, exploring how people perceive and use drugs

1

¹ University of Michigan student, faculty and staff members are all issued identification cards called MCards.

shows goals, values and motivations individual persons have, as well as the ways in which they interact with each other, and operate within society at large. To me, Adderall is the perfect tool to holistically examine the intricacies of undergraduate student life because it affects it on so many levels.

As I began reading about the use of prescription stimulants by undergraduate students, I quickly became aware of the dearth of anthropological research on the subject. While I did find publications in fields like public health, psychology, epidemiology, drug abuse, and sociology, these sources presented information mostly in a quantitative manner. For example one study detailed that seventy-two percent of undergraduates were using prescription stimulants to stay awake and study, while twenty-two were using prescription stimulants to stay awake and have fun (DeSantis 2008). Another quantitatively demonstrated how rates of off-label use of prescription stimulants are increasing (Smith and Farah 2011). While this is certainly valuable information in understanding the use of Adderall by undergraduate students, I felt that it was often a limited approach, and that ethnographic methods were needed in tandem with these sorts of studies in order to understand the issue in depth. I wanted to hear the stories behind these statistics, and felt that candid conversation was the only way to truly understand the cultural complexities of the issue. Doing so led me to hear uses of Adderall that were not given categories in survey collection. I was able to understand the different uses students could be referring to when they checked the "academic use of amphetamine" or "recreational use of amphetamine" box on a survey. Anthropological research on prescription stimulant use contributes to our existing knowledge by offering a more holistic view of the phenomenon. This knowledge of the myriad of uses for the drug in

one community is what allowed me to understand facets of the culture, and appreciate how and why Adderall was given importance in people's lives.

Students often contacted me expressing great interest in having a conversation about Adderall. During my fieldwork, I was often under the impression students did not have any suitable forum in which to discuss their Adderall use, and many were eager to have the opportunity to share their opinions in a confidential manner. In April 2013, I was invited to an event the Students for Sensible Drug Policy group at the University of Michigan sponsored entitled "Students, Sleep and Speed." It was advertised as a candid conversation regarding the illicit uses of prescription stimulants on campus. The event, however, consisted of a clinical psychologist and a psychiatrist discussing the effects of Adderall on the brain and what constituted ADHD diagnosis. While statistics regarding the off-label² use of stimulants by students were presented, this usage was dismissed as inappropriate. We students did not have the opportunity to discuss the issue with each other after the presentations. Students were extremely careful in their wording of questions regarding the safety of prescription stimulant use during the question and answer session after the health practitioners presented, and the questions ended up being constrained to the relatively safe realm of usage for ADHD. This event occurred after I had completed my interviews, and I reflected on my ethnographic conversations while I observed it unfold. From my private and confidential conversations with psychologists, psychiatrists and students, I knew that offlabel use of Adderall is an issue all these groups are very interested in speaking about.

² I will use the term "off-label" to refer to any use of prescription medication that the health practitioner did not intend for the patient to use it for, as well as any use of prescription medication by persons who have not been prescribed the medication themselves.

However, due to the controversial nature of the topic, it is artfully avoided when a group formally meets to talk about these drugs.

Although the results of my study could have potential implications for university health care or drug policy, I did not do this project so it could be directly applied to those fields. The public health discourse on Adderall use by undergraduate students often views the off-label consumption of Adderall as abuse or misuse of the substance, and something to be prevented (White et al. 2006). I am not arguing that this is not a valid perspective. However, my aim is not to paint any use of the drug as right or wrong, or as something that should be prevented or encouraged. I think it is important to understand the issue as holistically as possible before determining what interventions, if any, need to be made. Medical anthropologists have debated how much of their work on alcohol and drug studies should be targeted at being applied to public health and policy work (Marshall et al. 2011). Some think that in order to keep their work on alcohol and drug studies valuable, their ethnographic findings must be "easily translated into useful guidelines for prevention and treatment programs" (Marshall et al. 2001:159). I do agree that work on drug issues by medical anthropologists should be applied to the work of other professionals in many cases; anthropologists offer valuable and necessary contributions in a lot of interdisciplinary work. However, for the purposes of this study, my goal was to use a neutral approach to determine the factors that are causing students to use Adderall in order to properly illuminate the cultural underpinnings of the issue. The increasing student use of Adderall is complex, and I predict it is still in its infancy. Anthropologists have hardly begun to exhaust studying the culture practices regarding amphetamines (Marshall et al. 2001), and it is my hope that this research will lead to more ethnographic inquiries regarding student Adderall usage, whether

they are intended for scholarship, or conducted to be directly applicable to public health and policy work.

Methodology

This study was approved by the IRB-MED at the University of Michigan – Ann Arbor on September 20th, 2012 under the name Adderall Use by Undergraduate Students. I conducted my interviews from October 2012 through April 2013. I interviewed twenty-five current undergraduate students at the University of Michigan, as well as eleven health practitioners who currently work at the university. The students were all adults, ages eighteen to twenty-three; fourteen were men, eleven were women. All academic years were represented. The students had diverse academic backgrounds; some were pursuing their bachelor's degree in the Literature, Science and Arts college, others in the Engineering and Business colleges. The practitioners were psychiatrists, internal medicine or family medicine physicians, or psychologists. I interviewed practitioners who worked at University Health Service (hereafter referred to as UHS), Counseling and Psychological Services (hereafter referred to as CAPS), and the office of Students for Services with Disabilities (hereafter referred to as SSD), as well as one who worked at a private practice in Ann Arbor that serves many employees and students of the university; of the eleven, six were men, five were women. To differentiate from the student quotes, I placed the professional title and place of business of the health practitioner after the statement, before the date. I used snowball sampling to find informants. I began by interviewing two students who had expressed a desire to share their thoughts on the topic when they first learned of my thesis topic during my junior year. They led me to more informants by giving me the email addresses of their

friends or student groups whom they thought would like to participate. I sent emails to these people, and met with everyone who expressed interest. During our interviews, they led me to more students. Often, when a student affiliated with a group I had not interviewed with was mentioned in the interview—for example, an international student, a Resident Advisor, a drug distributor, someone involved in Greek life—I would ask the informant if I may contact the person they mentioned, and would generally be given an email address.

In order to speak with practitioners from UHS, I first met with the Director and Chief Health Officer. After explaining my study to him and showing my IRB approval, he gave me the email addresses of the UHS clinicians whom he thought would be interested in speaking about the topic. I emailed them all and interviewed everyone who responded. For the other offices, I looked through the public clinician profiles on their websites, emailed every practitioner who was applicable for participation, and interviewed everyone who responded.

The interviews were all one-on-one, in a place the informant suggested. These places were academic buildings on campus, informants' homes, coffee shops, restaurants, and even my own home. I never placed any time restriction on the interview, and they lasted from fifteen to ninety minutes, depending on how much the informant wished to talk. I had a set of questions that I brought to each interview, and used that paper to take notes. The question set I brought to the interviews was quite general, and often just a formality for me to fall back on in case the conversation lagged. Usually, my informant and I quickly became engrossed in our discussion, and the questions were disregarded. However unstructured, this method was valuable because it allowed me to hear perspectives, opinions, usages and beliefs that I could not have if I had rigidly adhered to questions I had constructed based on my own biases regarding what I thought the shape of student Adderall use was. In an effort for this study to

be different from all the survey collection that has taken place regarding student prescription stimulant use, an open conversation method was the best approach.

I tape recorded and transcribed each interview. Throughout the paper, I will indicate information from a student interview with the date at the end of the quotation. However, I interviewed multiple people some days, so each date does not necessarily correspond to an individual person. Because of the potential risks people might feel when detailing stories of drug usage, I never recorded any informant's name. Nor was I allowed to give anyone a pseudonym due to IRB regulations. In order to protect my informants, all interview materials were completely de-identified, and that is how they will be presented through this paper.

Value, Identity and Social Life

One of the most powerful anecdotes I heard over the course of my fieldwork came from a fellow senior. We were sitting in a coffee shop, and he was telling me about an experience he had while home on break.

My hometown's really tiny, and we were just you know riding bikes around, and we stopped at like this park which is right by the elementary school playground. So we're kind of hanging out on the slides and stuff and I find in the sand an Adderall pill, like a capsule, time release, and I was like Oh hey, look at this! Like oh man, I got kind of excited. Then I realized, wow...here I am a nineteen year old dude just got excited over something a five year old dropped or didn't want to take cause he though it was making him feel weird or something. I was like wow, I don't know....It was really interesting (12/6/12).

I share this example to show how Adderall is regarded differently by different people, and is embodying different identities, depending on context. I became so absorbed in the collection of these stories, as well as in the stir off-label Adderall usage was creating in the media in the year I did this project, that it was difficult for me to untangle myself from the issue in order

Adderall was a substance I noticed people interacting with. It was of current national interest, it was something that interested me, and I knew through my experience at the university that it was an issue that interested many of my peers. Reflecting on my ethnographic data, however, I struggled to articulate why it was so interesting. After weeks of experimenting with the wrong frameworks, I returned to the concepts from one of the first books I had read in preparation for the project in the summer of 2012: Arjun Appadurai's *The Social Life of Things*. Appadurai asserts in this work that "commodities, like persons, have social lives" (Appadurai 1986:3). When I struggled to understand what makes Adderall use interesting, I finally realized that it is because of the familiarity with which students interact with this commodity. They refer to it as "addy," exchange it casually, and they are using it in seemingly every arena of undergraduate life. Because students personify Adderall, it is fitting to examine it as something that has a life of itself. Appadurai continues:

Even if our own approach to things is conditioned necessarily by the view that things have no meanings apart from those that human transactions, attributions, and motivations endow them with, the anthropological problem is that this formal truth does not illuminate the concrete, historical circulation of things. For that we have to follow the things themselves, for their meanings are inscribed in their forms, their uses, their trajectories. (Appadurai 1986:5)

If anthropologists are going to start studying the use of prescription stimulants, determining the life Adderall pills lead is a valuable place to begin. I wanted to understand Adderall as a commodity, and follow its production, distribution and uses to be able to understand the trajectories pills follow as they are given life through human interaction. When I use the word "commodity" I am not referring solely to economic considerations, but rather to a culturally marked material thing in its entirety (Kopytoff 1986:64). While Adderall is a commodity that is produced and consumed in particular spheres, the trajectory between those

two points is not constant. Its life is constructed through social processes, and a pill is given different identities and the meanings depending on the individual trajectory it follows.

In the second essay of *The Social Life of Things*, Igor Kopytoff reinforces the idea of "a cultural biography of things" (Kopytoff 1986:64). The biographies of things are constructed through the cultural practices in which they play a role, and Adderall is given different biographies as it molds to the lives of unique students. The role Adderall plays in a student's life can be used to give cultural insight into what it means to be a student, or a person living in a university community, and what things these people value. I use the term "value" to refer to the potential the commodity has to bring about a change in a person's life, and the importance a thing is given in different situations. The prevalence by which Adderall is currently present on university campuses is a testament to the value it has to undergraduate students. Kopytoff asserts that commodities have both use value and exchange value (Kopytoff 1986). Analyzing both these systems of value are necessary to decipher what Adderall means to undergraduate students. As I will demonstrate, the life Adderall pills leads depends on the ways they are used and exchanged, and the value they are attributed with for different practices.

Adderall use affects the way students relate to their minds and bodies, interact with their environment, conceptualize being well or ill, manage their time, achieve their goals, and navigate their social relationships. While mass produced pills may seem identical, the little orange pills sitting in many college students desks are anything but. Undergraduates use Adderall for so many practices, for so many of the experiences that make up student life, that the pills are malleable commodities. They have many associations due to the cultural practices in which they are employed. Adderall is a tool that undergraduates are using to aid

in all aspects of student life, and the pills are in turn given myriad identities depending on the cultural underpinnings of the practices for which they are used. By examining the life these pills lead in the hands of students, I will demonstrate how Adderall is valued differently depending on the individual opinions, time and place, and how this drug is given a social life.

Production and Medical Use

Earlier that week, your friend took two pills from his prescription bottle to fold into the Post-It Note to give to you. Earlier that month, a pharmacist gave your friend that bottle because a doctor wrote him a prescription. And earlier that year, a pharmaceutical company sold that pharmacy a number of bottles because these pills are made to be medicine.

History of the Illness

Adderall is a prescription drug, meaning that each pill begins its life in the medical domain. Currently, prescription stimulants are prescribed for ADHD, and sometimes for other conditions, such as narcolepsy and depression. However, the physicians and students I spoke with most commonly associated these drugs with the ADHD diagnosis. Although ADHD is traditionally a children's diagnosis, many college age adults now also have prescriptions. This is largely because the first generation of people diagnosed with ADHD were children in the mid-nineties, and are now roughly college-going age. The adult ADHD diagnosis is increasingly more common, and college students are being prescribed stimulants in unprecedented amounts (Schwarz and Cohen 2013). Also, many students with prescriptions were diagnosed as children, and are simply continuing to be prescribed their medication into adulthood.

Perhaps it was because I was not paying proper attention at the time, but I accidentally noted down the meeting place for one of my interviews incorrectly, and sat in the wrong coffee shop to wait for a student. I had met this person before, and recognized her, so when she did not show up after fifteen minutes, I realized the mistake I had made and rushed to the correct venue. I found her doing homework at a small table, and apologized

profusely. She was very gracious about the misunderstanding; we ordered large cups of black coffee, and settled down to talk. I noticed at the beginning, while we were still making small talk, that she seemed very restless. She could not seem to sit still, and kept wringing her hands and moving things around the table. I wondered if I was making her uncomfortable in some way, but she was being very friendly and talkative, and quickly opened up to me about her experiences with Adderall. She told me had an ADHD diagnosis and has been taking two generic Adderall XR tablets every day since she was a young high school student to be able to do her work.

It's been going on ever since I was a kid, but I didn't notice it until high school when it began really affecting my schoolwork. And I couldn't ever really concentrate on anything...even things like I was cleaning my room would get totally abandoned because I would get distracted. So after that and after it started to interfere with schoolwork I went to get all the tests done and had the diagnosis (11/30/12).

When I asked her if she is happy to be on the medication, and if she feels like it helps her, she responded, "I have ADD and I can't concentrate unless I have [Adderall]. But I also hate it and think it's awful." She explained to me how she did not like the withdrawal symptoms that occur when she does not take the drug, and that she is looking into alternative medication for her ADHD. This woman still thought it was necessary to continue taking her Adderall every day, even though she was diagnosed in childhood.

The Drug Enforcement Administration, under the United States Department of Justice, defines "drug diversion" as the recreational use of prescription drugs (U.S. Department of Justice 2013). This definition encompasses all use of these drugs by persons

diversion."

_

³ The health practitioners I interviewed often just used the term "diversion" to mean "drug diversion." Every practitioner mentioned this term and I read the term frequently as well. Therefore, I will use the term "diversion" through the course of this paper to mean "drug

who do not have a prescription, as well as use by people who have prescriptions for purposes and in ways the practitioner did not instruct them to be used; in other words, all off-label usage. As I will illustrate in the next section, Adderall is frequently diverted on college campuses for many purposes, most commonly academic ones. Early in my fieldwork, I was sitting in local deli with a psychiatrist. He was eating lunch, I was sipping a cappuccino, and we were discussing his thoughts on these drugs being diverted into the hands of persons who did not have a prescription. Like many other doctors I interviewed, he seemed bothered by the fact that this occurs. As I probed him with questions to try to determine the underlying reasons for his uneasiness, he patiently explained to me that these drugs are "not M&M's. They're, you know, real medicine" (UHS Psychiatrist, 11/9/12). My informant harbored the same feelings as this physician. She was uncomfortable with the diversion of prescription medication, and said she normally preferred to just keep the pills for her own daily use. However, she did admit to giving pills to close friends when they approached her for them, for the purpose of studying.

I would hope that people would only use it when they actually needed it, not like sort of in an abusive way...like to study for exams, partially because I believe it's unhealthy. You shouldn't be able to stay up seventy-two hours, that's not what people are designed to do...personally, I would like to see only the people who have actual, legitimate, medical needs, because I have no problem with that. Like, I am one of those people. I fully understand that it's to treat an actual medical condition, which I think is necessary.

Because I had heard that so many students with prescriptions try to sell a lot of pills, I asked her if she had ever considered parting with her medication for money. She said that she never takes money when she gives pills to friends, and tries to limit giving it at all. Once, she recalled, a friend tried to buy her prescription from her, in order to re-sell the pills for much more than she had paid originally, as she buys them with health insurance. She was baffled

by this offer and sarcastically commented, "You know it's like I kind of need this. It's not like I have a bunch of extra pills that I can take out." Other students, however, mentioned buying and selling full prescriptions, meaning a month long supply of thirty pills, as part of their Adderall distribution network. This example shows how differently students can regard the exact same set of pills. In this case, the student considers her prescription to be a medical necessity that is needed for her to successfully meet the demands of her student life, and does not consider the drug an appealing substance. Adderall is a much different companion to this woman than it is to many of the other students who take it every day for other purposes.

It is important to historically contextualize the existence of ADHD as an illness category, and the practice of stimulant drugs like Adderall being prescribed to treat it. Both the illness and the pills are currently legitimized by western biomedicine. Just because these categories are historically situated does not mean that they do not exist; rather, I just want to shed light on how they are existing in this time and place, and what implication that has had in giving Adderall a social life. As the previous informant illustrates, currently, students with ADHD use stimulants to treat their condition, and many undergraduate students are certainly familiar with this fact. However, ADHD has not always been a diagnostic entity, nor have stimulant medications always used as medicine.

The conditions that constitute an ADHD diagnosis—inattention, hyperactivity, impulsivity—were not always lumped into one category. This illness has had a taxonomic entrance into medical practice, just like many other mental illnesses, and therefore has contributed to changes in medical culture. Medicalization is a term often used by anthropologists to describe the process by which human conditions enter the medical domain. These conditions may have been thought of as abnormal, but not necessarily constituting

illness, before. Through medicalization certain conditions come to be regarded as illness states, for which intervention or treatment is often considered appropriate. ADHD entered the DSM, the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association 1994), in the fourth and current edition of the text, published in 1994, and was therefore given a diagnostic identity at that time. In previous versions of the text the terms "ADD," "minimal brain dysfunction" and "hyperkinetic reaction of childhood" were used to classify similar behaviors. There is great power in the grouping of human conditions into a diagnostic term. Now that the term "ADHD" has been popularized, many persons self-diagnose as having the illness. As the ADHD diagnosis is increasingly made, the category of persons who are considered to have ADHD is created, expanded and reinforced.

If ADHD is not a timeless, autonomous category, what is allowing it to be at this time and place? Through Ian Hacking's work on the transient nature of illness, we can see how illness categories are easily created and destroyed, often based on context (Hacking 1998). Hacking writes of a particular mental illness category, hysteria, namely the fugue state, that came into being and was later deconstructed (Hacking 1996). Part of Hacking's definition of transient mental illness is that these categories are temporary. Like hysteria, ADHD has the potential to lose its place in medical taxonomy in the future, and thus might be thought of as a transient mental illness. Hacking describes certain environments, which he terms ecological niches, which help construct illnesses. A mixture of environmental factors has come together to create an ecological niche that is allowing ADHD to be considered an illness today. Perhaps my generation of American students is less focused than in the past. Perhaps there is a greater prevalence of neurological attention deficits. Whatever the reasons, ADHD is considered currently considered a real, diagnosable illness in the place I did my fieldwork.

The idea that an illness does not necessarily have an objective reality, that it can be constructed as "real" in certain times and places, allows it to be regarded differently by various people. If someone exhibits a set of conditions that they have read are the symptoms required for diagnosis, or feels similar to a person with the diagnosis, or has experimented with prescription stimulant pills off-label and feels like they help, he might begin to identify as a person with ADHD and subsequently seek out an Adderall prescription. Illness classifications allow people to regard their minds and bodies as deviating from "normal" and subsequently determine how they choose to navigate their relationships with pharmaceuticals. Stimulant pills have currently found their niche in the ADHD diagnosis, even though this has not always been a default pairing. Just as the birth of categories of illness gives these pills cultural significance as a medicinal substance, the pills in turn have the power to perpetuate this illness, as this next example illustrates.

I led a woman up two flights of stairs in the Michigan League. We had met downstairs in the main lobby, but she had said she was uncomfortable speaking anywhere we could be overheard. Luckily, we found a deserted corridor upstairs that had one wall lined with couches. Without the risk of being overheard, my informant seemed very eager to talk about her experiences with Adderall. She told me that she had attended CAPS appointments her freshman year after being caught drinking alcohol in the dorms; these appointments were necessarily in order to have the alcohol incident removed from her student record. During these appointments, my informant's health practitioner at CAPS commented that she seemed to meet the ADHD diagnostic criteria. After performing what I assume was the standard CAPS testing, the practitioner confirmed the diagnosis, and my informant subsequently started taking Vyvanse XR capsules every morning. This woman was only diagnosed as

adult, which is a testament to how the ADHD diagnosis has shifted from being exclusively a children's diagnosis. She commented on that freshman year experience:

They did all these tests and said I had it. And I was like, Oh great, something to help me focus!...Honestly what made me start taking it was the doctor telling me that I needed it. And *at first* the effects were awesome. I was really focused, I was happy, I was doing really well (12/9/12).

Prescription stimulants easily became a part of her daily college routine, and she began taking Adderall in addition to Vyvanse.

I had mentioned to my psychiatrist that the Vyvanse would wear off in the afternoon when I took it in the morning and then I was too tired to be at the library, so then she prescribed me like eight eighteen milligram Adderalls. So I would take a thirty milligram Vyvanse in the morning that would last until afternoon, and then an eighteen milligram Adderall at night, instant release.

As her freshman and sophomore years progressed however, my informant explained to me how the drugs did not provide the beneficial effects she experienced initially. She was experiencing adverse side effects, such as panic attacks and an alarming amount of weight loss.

I feel like it's one of those drugs that after two years of use, unless you up and up and up, it just *stops* working, and you start to notice all the negative effects. And I think the other thing was once the panic attacks started happening, then my doctor put me on Celexa, which is like an antidepressant...and I was like I am a *very happy* person. Like I am not a depressed person whatsoever. But it was just because of what this other medicine was doing, and I was *so sick of pumping my body with pharmaceuticals*, that I was like I just needed to stop this.

On top of these unfavorable personal changes she was experiencing due to the medication, she mentioned that women in the sorority house she lived in would approach her to try to buy the Adderall pills. She did not want to take up the role of being the primary distributer of these drugs in the house, and the pressure she felt from her housemates, in conjunction with the displeasing effects prescription stimulants were having on her body and lifestyle, led to

her decision to completely stop taking the Vyvanse and Adderall the summer between her sophomore and junior years. I asked her if after deciding to stop the medication, she still considered herself to be a person with ADHD, or if she ever identified as such a person in the first place. She responded:

I don't think it's real. I know that sounds funny...I think everyone has ADD in their own way. I think it made the attention deficit worse, by having that medicine in my body because it made me think that I *needed* it...You know that all of a sudden you have this condition and you're prescribed a medicine, so it makes it real...It totally, totally made it a thing.

This woman's comment illustrates how she felt that Adderall contributed to her being categorized as having ADHD, and how the pills had the power to perpetuate the diagnosis. It is clear that she did not think her diagnosis was appropriate, or that ADHD was a legitimate illness. The fluidity of the ADHD category is evident in the fact that these two undergraduate women regard their diagnosis very differently, and the role the pills play in their lives has affected their perceptions. The first woman told me that until there is another ADHD treatment created, she will take a pill every single day for the foreseeable future. The second woman told me that, given her negative experience with the ADHD diagnosis, she never wants to take another stimulant pill again. The ADHD diagnosis definitely affects the ways the pills are regarded as medicinal or not. The fact that these pills are born into the medical domain has bearing on how they are perceived and consumed, and many pills spend their whole lives, from production to consumption, in this realm.

The previous two students had very different paths to the same ADHD diagnosis. The varying criteria for diagnosis contribute to the subjectivity of ADHD, and are intimately linked with its medicalization. ADHD testing protocol is somewhat of a contested subject.

Speaking to practitioners at UHS, CAPS and SSD offices suggests that there is no universal

testing method for the diagnosis. There is the concept of a full neuropsychological test, but I could not gather whether there was a range of ways in which this could be satisfied, or whether there was one standard protocol. In any case, the health practitioners at all three locations told me that it was not provided at their places of business; the patient had to obtain the testing from some other location if the practitioner felt it was necessary, which not all of them did. Some felt confident prescribing without the results from the testing, others chose to omit the testing because their patient could not afford it, while still others chose to prescribe only if the patient had results from this sort of testing. Some health practitioners had strong words regarding the diagnostic protocol employed by practitioners at one of the other facilities, or regarding other practitioners' practices at their own place of business. I sometimes noted slight tension when practitioners mentioned the other facilities that provide Adderall on campus. A psychiatrist at UHS was generous enough to share with me a question form that is used when talking to students as part of the diagnostic process, and a psychologist at CAPS provided me with that facility's "Frequently Asked Questions about CAPS' ADHD Services" form. Looking at these documents, I could imagine how the conversations that led to diagnosis would be different from one place to the next. Students may receive drastically different experiences in these offices when being tested for ADHD and when a stimulant prescription is being decided upon. It might be advantageous if there was more regular communication between these groups regarding how stimulant medications are prescribed at the University of Michigan. Many practitioners hinted that they would appreciate such an action, as it would allow university health care to present a more unified front on how they allowed these drugs enter the undergraduate population. Campus wide communication of this sort might help to alleviate some of these underlying tensions between practitioners in various parts of heath service. Alternatively, perhaps keeping these different routes to prescription may be beneficial for the student body. And of course, not all students receive prescriptions for stimulants from on campus providers; many receive them from practitioners outside the university system. However, the fact that differences in diagnostic protocol exist demonstrates the variable nature of the ADHD diagnosis.

ADHD used to be only diagnosed in children; the DSM IV instructs doctors to diagnose people before age seven. However, as I mentioned, lately there has been a new wave of "adult" ADHD, meaning people being diagnosed for the first time when they are already adults, or people deciding to stay on the medication into adulthood, not outgrowing the condition so to speak. The previous informant, who was diagnosed during a CAPS appointment, is an example of an adult ADHD diagnosis. These changes in diagnostic protocol again show the fluidity of the illness category. When I was speaking with one student who was diagnosed with ADHD and prescribed Adderall during his sophomore year at the university, he spoke of his mother's reaction to the change he experienced from that time onwards:

This medication was created for *children*. And now it's just becoming more common for older and older adults to take it in their day to day life... My mom's even commented that You've been way more focused and productive and on top your game recently. She's like, is it because of the Adderall? And I was like, probably. And she's like, maybe I need that! And I was like, Mom, you are fifty-two years old. You do not have ADHD. And she's like, but what if I've had it my whole life? And what if adults took it? I just don't know. I don't think it's appropriate though...I don't know when the point is to stop (11/19/21).

This student felt uncomfortable regarding the use of Adderall by adults. However, it is more accurate to say that he was made uncomfortable by people of a certain age, people outside of his generation, being on the drug. He is a twenty-two year old man himself, and seems to

think it is perfectly appropriate to be diagnosed with ADHD as an undergraduate adult. This shows how Adderall is a drug associated with the generation of people who are currently young adults—college age—due to its historical situation. The American Psychiatric Association has hinted that in the DSM V, which is reportedly going to be published in May 2013, it will expand the diagnosis to be applicable to adolescents and adults (Schwarz and Cohen 2013). This again shows the fluid nature of medical diagnoses, and how an illness can be linked to a particular population at one time and to a different one at another time.

History of the Drugs

These previous examples demonstrate how students who have a prescription use Adderall firsthand. However, the diversion of Adderall is so prevalent, that many students regularly use Adderall without considering its production. "I think there are relatively few people with prescriptions. It's all flowing from somewhere though," (11/7/12) one student commented. He spoke the second sentence rather slowly, as if for the first time truly considering where Adderall came from. As Adderall is currently considered prescription medication, the pills enter the student body through pharmacies. They are produced by pharmaceutical companies, and are more readily consumed in recent years. As another student told me quite matter-of-factly:

I think that we are a pharmaceutical-heavy culture, to be honest...look at diet pills! Whatever's the fastest and easiest way...and *pills* are the fastest and easiest way, and take little to no effort. Put it in your mouth, drink some water, sit down. And all of a sudden supposedly, it's supposed to work (1/17/13).

We were sitting outside a computer lab in one of the academic buildings early in the evening. Students were streaming out of their last classes of the day. I was already sitting on the bench where we had agreed to meet when the woman who spoke the previous statement confidently marched up and introduced herself. I had been especially interested in interviewing her because I had been given her name in my search to talk to a student who worked in the dormitories. While she was not a Resident Advisor, she was an Academic Success Specialist, a role that required her to live in freshman dormitories to advise younger students. It became clear after a few minutes of talking, however, that she had nothing of interest to note about Adderall exchange in the dorms. Instead we were deep into a conversation about Americans' use—some, like my informant, would argue overuse—of pharmaceuticals, pills in particular. The increase in the use of pharmaceuticals has been noted by many practitioners and scholars, and is at least partially dependent on cultural practices (Dumit 2012). The reasons behind the increase in pharmaceutical use are complex. Yet, as this informant notes, pills are often regarded as easy drugs, both in attainment and use. They are used to quickly and easily solve problems and achieve goals, and the convenience with which students regard them contributes to their consumption.

Joseph Dumit illustrates how pharmaceutical companies and their economic interests in particular are a driving factor in the increase of pharmaceutical consumption. In his critique of the pharmaceutical industry—one of the largest in the world—Dumit unpacks the relationship between the pharmaceutical industry's quests for higher profit with the increase in disease expansion. Dumit theorizes that facts are contextual, and that the "resources available to pharma marketers enables them to turn everyday assumptions about facts into strategies" to sell their products (Dumit 2012). The documentary *Big Bucks, Big Pharma* (Ridberg and Goodman 2006) echoes some of Dumit's concerns; a major one being that pharmaceutical companies perpetuate illnesses in order to sell brand name products. Brand

name drugs yield higher profits than generics, but the patents for new brand name drugs expire within a matter of years. When this time is approaching, pharmaceutical companies often try to market their drugs under different names or attached to new conditions in order to renew the patent and continue enjoying the profit of the brand name. Indeed, we see this trend with stimulant medication. While older stimulants like Ritalin are available generically, other newer varieties are not, and are therefore more expensive. This deeply plays into the medicalization of illnesses, because if drugs are constantly being produced for a condition, the condition is further validated. The production of new types of stimulant medication by pharmaceutical companies illustrates how ADHD is still a culturally salient diagnosis, and that people value the use of pills to be able to treat it.

Any discussion of the production of prescription stimulants today has to acknowledge their relationship with the ADHD diagnosis. Currently, pharmaceutical companies are producing stimulants because doctors are prescribing them to treat ADHD on a large scale. There is an increase in the prevalence of this illness. Recently, the Centers for Disease Control and Prevention reported that an unprecedented eleven percent of school age children have an ADHD diagnosis, and that two-thirds of those children were prescribed stimulants like Adderall or Ritalin (Schwarz and Cohen 2013). The sheer number of pills put into circulation through the categorization of this illness shows the power medical categories have in shaping lived experience.

Like I mentioned earlier, the ADHD diagnosis also has its place in history that must be taken into account, and the histories of stimulant drugs are not aligned exactly with the history of ADHD. Amphetamine based drugs were first produced at the beginning of the twentieth century. Any examination of the history of amphetamine use in the United States

will begin with the Benzedrine inhaler, a product that came on the market in 1932. By this time, scientists across the globe had been synthesizing amphetamines for about forty years (Moore 2011). However, the introduction of the Benzedrine inhaler was the first time this type of drug became easily available to the average consumer. It was originally marketed as a nasal inhaler, a vasoconstrictor that could be used to clear the sinuses. Of course, people soon realized the stimulating and potentially euphoric effects of the Benzedrine inhaler⁴, and the plastic case was routinely cracked open so that the amphetamine-soaked cotton strip inside could be consumed (ibid). Smith, Kline and French, the pharmaceutical company that originally made Benzedrine, (now called GlaxoSmithKline) halted its production in 1949 (Iversen 2006), but before that, in 1936, they marketed Benzedrine sulfate in pill form. Doctors started routinely recommended these pills to treat narcolepsy, depression, Parkinson's disease, anhedonia, and obesity, among other ailments; however, they were not prescription medication yet. There have been many uses of amphetamines since their initial production. They have been considered medicines and to treat illnesses, and they have also been considered tools that help people achieve goals outside of realm of sickness and healing. For example, there were popular advertisements—magazine pages and the like—in those days marketing the drug as a diet pill, as it could promote appetite suppression. In regards to those early years, amphetamine has been referred to as "a drug looking for a disease" (Moore 2011), and there is an element of truth to that statement that exists to this day. A few practitioners I interviewed mentioned that although they primarily use stimulants for ADHD, they do sometimes prescribe them for conditions like depression, narcolepsy, or

⁴ These types of inhalers, called Benzedrex inhalers, are still sold over the counter in many drug stores. However, they have been modified to reduce abuse potential, and are not made with Benzedrine, but related compounds.

even in geriatrics. In 1939, Benzedrine pills became prescription drugs, and were given even more legitimacy in the medical domain. However, that change did not slow the increase in the number of people using amphetamines, and a new one, Dexedrine, came on the market in 1940s. Dexedrine was commonly prescribed as an antidepressant and a diet-pill, and somewhat less frequently for attention disorders and narcolepsy. Non-medicinal uses of stimulants—like by pilots and drivers to stay awake for long hours—still continued after the drugs became prescription medication. However, because of this change in taxonomy, these were now off-label uses. The physicians I spoke to who mentioned Dexedrine were older, and remembered it and Benzedrine as some of the early stimulants, ones they did not commonly prescribe anymore.

There were nasal inhalers back when I was a kid that had Benzedrine in them. And people would then pull the cotton out, and chew the cotton to get the Benzedrine, or make a tea to get the Benzedrine out of it. And then Dexedrine was out there, and it was a common pill used by truckers to stay awake (UHS Internal Medicine, 10/26/12).

It is important to note how different stimulant medications continue to be produced even though they are all essentially the same amphetamine compounds. After the initial success of Benzedrine and Dexedrine, more stimulants came on the market. Ritalin is commonly regarded as the first stimulant medication that was intended specifically for children; its production began in 1955. It continues to be one of the leading stimulants prescribed to children to treat ADHD. But because Ritalin has been in production for so long, it is easy to find generically. (Ritalin is not an amphetamine, but its desired effects are roughly the same, and is prescribed almost interchangeably with amphetamines). Adderall was created in its instant release formation in 1996, and then in an extended release capsule in 2001.

Prescription stimulants have not always been attached to the ADHD diagnosis, because their

produced after the category of ADHD was established, it has been linked to this illness. For the same reason the identities of the newest stimulants like Concerta (2000) and Vyvanse (2007) are intertwined with the ADHD diagnosis. Concerta is a type of methylphenidate, like Ritalin, but it is supposed to be longer lasting. The idea behind extended release pills is that young children can be given one pill in the morning by an adult that will last the whole day, instead of the child being responsible of taking multiple pills throughout the day, and other stimulants like Adderall (Adderall XR) are now available in this formation.

Medications like Vyvanse are not available in generic formulations yet, and the name brand one is certainly more expensive. There are economic interests that drive the production of these new medications. Companies' drive for profit greatly affects the quantity and quality of drugs produced, indirectly influencing categories of health and sickness, as well as cultural attitudes towards illnesses (Petryna and Kleinman 2006). Petryna and Kleinman note that pharmaceutical companies are interested in producing drugs exclusively for a wealthy American market. Many scholars have pointed out that pharmaceutical companies, the biggest ones being American and European, are not investing effort into producing anti-HIV drugs for example, as large markets that have the most need for such drugs are located outside the Western world, and will not yield as much profit as other drugs (ibid). Adderall falls into the category of a psychopharmaceutical, like anti-depressant and anti-anxiety drugs. Pharmaceutical companies see the value in producing these, as there is a large market in the United States for them. Different medications have been produced as a result of the interests of pharmaceutical companies, as their intended usages change, illustrating how the history of the pills and diagnoses are in interplay.

The fact that new brand name stimulants come on the market leads to changes in advertising of the drugs. Juxtaposing the evolution of prescription stimulants and their advertising to changes in diagnostic patterns over the past few decades shows the effect industry can have on medical culture and practice. Many scholars have drawn attention to the way in which pharmaceutical companies in recent years have been able to take advantage of direct-to-consumer advertising to market their drugs to the American people, changing the identity of certain illnesses through television and print advertisements (Greenslit 2005). Direct-to-consumer advertising is advertising that targets the drug consumer, the patient, directly, instead of health care professionals (ibid). Direct-to-consumer advertising has the power to affect the identity of the drug user, as persons might consider themselves ill if there are public advertisements that portray conditions as problematic enough to have pharmaceutical products to alleviate them (ibid). I inadvertently observed examples of directto-consumer advertising of prescription stimulants during the course of my research. Because it was introduced to the market relatively recently, I was frequently prompted by Vyvanse commercials on the sidebars of websites. I also saw many television advertisements for Shire's "Own It Project," which was introduced by Adam Levine, the famous lead singer of the popular music band Maroon 5, in April 2012. The commercial features Levine describing his ADHD symptoms continuing through adulthood. These advertisements send the message that if Adam Levine's ADHD continued into adulthood, perhaps yours has as well. This project also aims to motivate those who were diagnosed with ADHD when they were younger—and thought they outgrew it—to be reassessed by their doctor if their symptoms are still affecting them into adulthood. "The Own It Project" is endorsed by the Attention Deficit Disorder Association (ADDA), Children and Adults with Attention

Deficit/Hyperactivity Disorder (CHADD) and made possible by Shire, the company that produces Adderall (2012, April 10th). It is important to note that Shire Pharmaceuticals, the company that produces Vyvanse and Adderall XR, sponsored the television advertisements in conjunction with Levine. Given that it has been established that pharmaceutical companies operate to make profit, it seems more than likely that Shire's enthusiasm regarding the newfound adult ADHD diagnosis is linked to the company's desire to sell more prescription stimulants.

Understanding the production of Adderall, and its association with the pharmaceutical industry and medical domain is crucial before understanding the modes by which it travels through the undergraduate student body. The lives of commodities "have the greatest uniformity at the production pole" (Appadurai 1986:41), and every Adderall pill has medicinal value, by virtue of its current production in the medical domain. Our biomedical culture has classified the conditions of inattention, hyperactivity and lack of focus into a legitimate medical diagnosis, ADHD. Students who use Adderall as a medicine may perceive its effects on their life negatively or positively, but that is secondary to the fact that they consider it medication in the first place. No matter where or how the commodity is consumed, the pills are all produced as medicine. Appadurai asserts:

The production of knowledge that is read into a community is quite different from the consumption knowledge that is read from the commodity. Of course, these two readings will diverge proportionately as the social, spatial, and temporal distance between producers and consumers increases. (Appadurai 1986:41)

Adderall is a special commodity in that its mode of production is very uniform. Prescription stimulants are produced by the same few companies, in the same place and time, and each Adderall pill is made to be identical. However, the fact that every Adderall pill has its origins

in the medical domain does not mean it is consumed in this sphere. The trajectories from pharmaceutical production to the various practices in which Adderall is consumed allow for the illumination of cultural practices that allow the pills to follow these different paths. In the following section, I will demonstrate the various modes of off-label consumption of Adderall to illustrate how these identically produced pills can have different individual experiences as unique as the students who use them.

Consumption and Student Life

You slide one of the pills from the Post-It Note into your palm. Depending on what you are doing, where you are going and whom you are going to be with, you decide how to take the pill. You can swallow it, snort it, or dissolve it in a water bottle. You can take the pill whole, or subdivide it into smaller dosages. If you hold the pill a horizontally, with your thumbs and forefingers on the flat faces, you can gently press down and split it in two. You could use it for work or play, chores or adventures. Perhaps you use half of the pill for one event, and save the other half for another. This little orange pill is a blank canvas for student activity, and can be a useful companion no matter where you go after you leave your desk.

Academic Use

Between fifteen and sixteen percent of respondents of the most recent University of Michigan Student Life Survey reported illicit stimulant use within the past year (Boyd et al. 2011). This number is limited to the number of students who answered the survey questions, only 1395, and is probably artificially lower. In terms of the off-label uses for which students divert Adderall, academic related practices were by far the most prevalent. Each of the twenty-five students I spoke with mentioned the off-label use of prescription stimulants specifically for doing schoolwork. This practice is so familiar to students that they often portrayed it as the "obvious" reason Adderall is diverted. In fact, when I asked students the context within which they associate Adderall use, many immediately detailed specific academic situations—taking exams, writing papers, staying awake in class—without even considering any purposes that were not related to schoolwork. One student responded to my query about why students take Adderall:

To help them study, sort of like as a performance enhancing drug, is the best way to describe it. From what I know, from how I use it, just like, if you need to really go hard or study for a test or something, you take Adderall and you just focus, the time slips away, and you just, never get distracted. And it's great because there's a lot of distractions when it comes to a college campus. So like being able to just shred them off and being able to study continuously for several hours is nice, it's really nice. So in the context they use it is to help them perform better in school (11/20/12).

Shortly after the first prescription stimulants came on the market, college students realized how they could enhance their academic performance and quickly began engaging in their illicit use (Moore 2011). Undergraduates frequently engage in off-label uses of ADHD medications with the intent of studying for and taking exams, writing papers, staying awake for extended stretches of time to do schoolwork, and paying attention in lectures. Given the effects stimulants can have in most people—promoting energy and wakefulness, focus and attention—this is well reasoned. The University of Michigan shares the competitive atmosphere of many universities, and as such is a fieldsite in which these values are collectively embodied. Good academic performance is important to many University of Michigan students. It follows, that the students of this institution have opinions on whether Adderall is a valuable tool that can help them to achieve their academic goals. The above student's comment wonderfully summarizes opinions regarding the use of Adderall that many of my informants expressed. In order to perform well academically, students must dedicate time and energy to their schoolwork, and a large part of the value of Adderall is that it is a tool they can use to do this.

The use of these drugs is related to the academic environment of the university, as well as the time constraints imposed on students. There is a popular adage circulated among students: among school, sleep, and social life, you have to pick your favorite two. In other words, there is not enough time for students to successfully have balanced lives, and students

must individually decide which aspects of college life to prioritize. By allowing students to do more or better quality work in a given amount of time, off-label use of prescription stimulants can allow students to avoid making sacrifices in other parts of their lives while still being able to earn the grades they desire. In the context of academics, students take these drugs to avoid distraction, stay awake longer, and increase their work output for a given amount of time. Students who took Adderall for academic performance enhancement swore by its effects. When I asked these students about a possible placebo effect, however, many laughed and said that, no, it does in fact always work for them. As one student who takes Adderall regularly to do homework explained:

I can feel it driving. I don't think, I mean, if you gave me a placebo Adderall, I'd be like, you know, an hour in, like Where is it? What's going on?...I can't say for certain obviously, but I'm very confident, because I could even tell you what dosage I took...Like if you gave me ten milligrams versus forty, I'd be able to tell you very, very quickly. Because I'm familiar with the way it acts on my body (11/7/12).

Another student spoke of how Adderall always helped him study:

They wouldn't have crossed the market if it was only placebo effect. It wouldn't have gotten to the pharmaceutical market if there was only placebo. They test *against* placebos with Adderall, and they'll be like okay, there's actually efficacy to this drug (10/26/12).

If Adderall was not helping students achieve the academic goals they wanted, it would not be diverted regularly for these purposes. All of the health practitioners I spoke to were aware that ADHD medication is diverted into the hands of students who do not have a prescription, often for studying. While they expressed concern about students diverting ADHD medications for academic performance enhancement, they did not doubt that the drugs could still be efficacious when used by persons who do not have an ADHD diagnosis. One Internal Medicine physician I spoke to mentioned a mandatory meeting for University Health Service

practitioners a few years ago. The speaker was from the School of Pharmacology, lecturing on stimulant diversion. During that meeting, this doctor recalled, one of his UHS colleagues asked the speaker why someone does not do "a well done placebo controlled trial of stimulants in people who don't have a firm diagnosis of ADHD." The speaker supposedly "started laughing and said 'No one's going to do that study." I interrupted the physician's anecdote to ask if stimulant medications were tested against placebos during clinical trials. He said that they were, but only in people with ADHD. When I followed up and asked why, considering the rates of diversion, the speaker that day thought the suggestion of also conducting placebo controlled trials in persons without ADHD was ridiculous, the physician said that he agreed with the speaker's response: it is because "we already know the answer...They would help you! They do give you a competitive advantage, they do make you more alert, they do make you concentrate better, and they probably would improve your score on a standardized test" (UHS Internal Medicine, 11/14/12).

The phenomenon of students using Adderall to aid with academic performance is by no means restricted to any particular university or this particular time period. Increasingly over the past few years, academics, educators, and health practitioners have noticed the diversion of prescription stimulants on college campuses across the nation (McCabe et al. 2005). This belief that taking ADHD drugs without a prescription will help with academic work has become very prevalent in schools and colleges across the country. In a recent article on the use of prescription stimulants by students, the essayist Margaret Talbot fittingly comments, "college campuses have become laboratories for experimentation with neuroenhancement" (Talbot 2009:1). She goes on to describe Adderall and Ritalin as "drugs that high-functioning, overcommitted people take to become higher-functioning and more

over-committed" (ibid), and posits that "every generation has its defining drug" (ibid). Indeed, prescription stimulants like Adderall are my generation's "go-to drug" to accomplish just about any task, but particularly ones that are related to academics. The rise of off-label use of prescription stimulants for academic purposes is becoming so prevalent that the media has popularized them as "smart drugs," "study drugs," and "cognitive enhancers." Over the last few years in particular, media sources like *The New York Times* (Schwarz 2012), National Public Radio (Trudeau 2009), and Slate (Oremus 2013) have highlighted this phenomenon. In these articles, high school and college students across the nation have given testimonials about how ADHD prescriptions are diverted to aid in completing academic work. Programs like CBS's 60 Minutes (2010) and NBC's Rock Center with Brain Williams (2012) have also dedicated programs to addressing the diversion of prescription stimulants. The Michigan Daily, the University of Michigan's student-run newspaper, recently published that Adderall and Ritalin are commonly used as "study aids" on University of Michigan campus, and many current undergraduate students contributed comments supporting this label (Dillingham 2013). Some of these journalistic reports portray Adderall use without a prescription as shocking, inherently dangerous and immoral. The reporters, and the experts they interview, worry that the use of these drugs for academics indicate that the college atmosphere is too competitive, that the use of these drugs negatively affects students' bodies, and that students who take these drugs to study are gaining an unfair advantage. My student informants, however, did not all regard the Adderall use in these negative terms. Instead, the use of Adderall for academic work was viewed both positively and negatively, depending on the person and the academic situation.

If it is generally accepted that stimulants have the potential to give an academic advantage, my next question was if people considered that to be an unfair advantage. There was a huge range of responses to this question. Some students attributed great value to Adderall for helping their academic work. Others devalued it as they considered it cheating, meaning they considered Adderall use for academic purposes to give unfair advantages that they morally opposed. One student looked puzzled when I asked him if he considered Adderall providing an unfair academic advantage, and then simply said, "Why would I?" (11/28/12). At the other end of the spectrum, another student adamantly told me that he thought stimulant use by students who are not diagnosed with ADHD was cheating because "they're putting that person who needs Adderall at a disadvantage again. Because they are putting themselves at a higher level that they don't need to be at" (10/7/12). A student who has been diagnosed with ADHD and takes prescription stimulants regularly, however, commented that "After having taken it, I don't think you get any advantage with knowing more information, or that you are going to do a lot better" (12/6/12). Not everyone I spoke to harbored one of these strong opinions. "The thing is, Adderall won't give you the right answers on an exam. But you will be more focused, so you would presumably know the answers better" (11/2/12), one woman said. She then confessed hesitatingly:

My views have kind of changed. There was a period where I thought that it was completely cheating, and I was completely against it, and I didn't think it was fair that people were using it, and that other people weren't. But now it's almost like, it's kind of like, it's almost a personal choice. Like if you want, I don't know...it's not as extreme as cheating, but it's not morally correct either...I don't think it's right, but I don't think it's cheating. It's not as bad as getting the answers to an exam.

Another student contributed:

I mean, you're still doing the work yourself, you're still learning. If taking Adderall is cheating, then people with prescriptions are cheating...I think

there's so many people who take it that it's kind of becoming the norm...when kids take it, it is an advantage. I mean, you will do better (11/7/12).

The above comments show the normalcy of the practice of using Adderall to help with academic work, and how the morality of a practice can be affected by its prevalence. Because Adderall use for academic work has become such a popular phenomenon, students who might have morally opposed it in the past can now regard it as acceptable. These are only a few of the comments students made regarding the issue of performance enhancement and unfair advantages. Some of my informants mulled it over for a minute or two before claiming that they simply could not form an opinion. Before discussing the particulars of Adderall usage for academics, it is important to consider what these opinions on the morality of Adderall usage mean in terms of the life this substance has on campus. As I mentioned before, in this paper I am personally not concerned with the morality of Adderall usage. However, many of my informants, and many people across the nation, as the current media discourse indicates, are. The idea that it is not right for some people to use Adderall has bearing on how the drug is used for academics. It is widely accepted that stimulants will give most people an advantage in terms of academics or work, and is also incredibly accessible to all students, even though it is a prescription drug. However, some students choose not to use Adderall to enhance their academic performance because they feel off-label use of prescription drugs, or performance enhancement through the use of any drug, is morally wrong. Therefore, the use of Adderall for academics is limited to the students who do not harbor the opinion that it is wrong for these drugs to be used aside from medical practice. But most students I interviewed did not have any moral qualms regarding Adderall usage, and I heard it being used for a variety of academic reasons.

The students at the university shape the academic culture through the value they place on academic work. My own experiences and my formal fieldwork demonstrate that undergraduates at the University of Michigan make doing well in school a high priority. Students commonly brag about how hard they are working in their classes. Undergraduates like to tell their peers that they have not eaten, slept, or showered for a number of days because they were devoting all of their time and attention to schoolwork. These conversations can often be overheard in classrooms and in the library. Adderall plays into this practice by allowing students to stay awake for longer hours than would be possible without the drug, therefore allowing students to speak more about how hard they are studying. Because staying awake to study is considered a culturally respectable practice, Adderall use carries no stigma when it is used in this way. "Some people are happy to talk about it. They're kind of proud of it. Like I took this amount of Adderall, and then I did this much work. They kind of want to brag about it" (1/17/13) one student said. When students spoke of using Adderall in this manner, to stay awake for an extended period of time to study, they repeatedly mentioned being awake for three days to study for exams. Three days, seventy-two hours, those seem to be the magic numbers, and students will repeatedly take a little more Adderall every time they begin to feel tired during this three-day stretch. As one student told me: "people who have taken a lot of milligrams are just wired. And they haven't slept in three days" (11/19/12). Other students contributed:

I feel like it's a freaking binge. They take one, they stay up, they take their exam, they take another one, study for the next exam...I've heard stories from both sorority girls and fraternity boys that like oh here we go the next seventy-two hours of our lives on a hundred milligrams of Adderall...I did that a few times freshman year, where I would stay up three days at a time...I was like I don't want to crash I'm just going to take another one, and I'm going to keep going, and the longest I ever did it was three days, it was seventy-two hours. I was with my friend and we were in the Diag, and I set my backpack down in

the Diag in a grassy spot, and I fell asleep in the Diag for six hours. My friend came back to try to wake me up, and I wouldn't wake up...after being awake for three days at a time (12/9/12).⁵

Another student gave her impression of the comments her friends who use Adderall off-label to say awake for extended periods of time make:

I'm on all these drugs and they make it so that I'm really good at school. That's kind of a collegy type, super motivated bragging...Like oh, I haven't slept in three days! I've taken all this Adderall (11/30/12).

The emphasis on the value of time, and how Adderall could create more productive hours for a student was echoed many times. "Around exam time or when you get stressed out about homework, to help you focus and get through whatever you have to do," (11/28/12) one student commented. The fact that Adderall can help a student focus, and thus save time and reduce stress, is a main reason students are turning to this drug as an academic performance enhancer. Not only does it help a student focus on the task at hand, but it can also be used when the student has procrastinated, or simply has much more work than can be naturally accomplished in the time the student has to do it. In these cases, students use the focus and concentration Adderall provides them to help them be more efficient workers in the time that they do have to do their schoolwork, and it is used to cram a large amount of work in a short time, if the student has procrastinated, and is desperate. "My impression is that a lot of students without ADHD diagnosis are using it for school. A lot of people find it helpful to cram. I think it's very widely used," (11/7/12) said one student. It is also used to stay awake for hours at a time, usually to study through the night, or be alert and interested during classes. "People take it right before their exam to concentrate better. Or if they have a lot of reading to do they take it because it helps them read a lot" (1/21/12), said another student.

5

⁵ The "Diag" is the term for the courtyard in the middle of University of Michigan central campus.

These statements demonstrate how Adderall helps students accomplish various academic tasks.

Adderall also affects time management on a broader level, in that students organize their weekly, monthly, or semester schedules around the effects of the drug. Students take more Adderall during times in the semester when they have more to do, like exam times.

Those who aren't [prescribed Adderall] use it to study, and will probably do it when they have a paper or exam. I don't think people who aren't prescribed it take it every day, but definitely like once a week or something like that, a few times a month. Also it's most prevalent during finals week and midterms (11/2/12).

When students choose to dedicate time to non-academic activities, such as partying, drinking and student organizations, Adderall can be used as an academic tool that helps make up for time not spent studying. One student offered his opinion of students who consume a lot of alcohol every week:

The more alcohol you consume, the more neurons you kill, the more neurons you kill, the slower you are at pacing. And if you can't get your work done, then you need Adderall. And usually what I've seen, usually in Greek life, is that, I mean, binge drinking and Adderall use go hand in hand (10/26/12).

While the time Adderall can give a student to study is a large part of the appeal of the drug in the academic sense, it is not the only reason it is used. One of my first informants illustrated an alternative use for the drug, still to aid his academic performance. I met him in the Chemistry building, one of the biggest academic buildings on campus, in the middle of the class day. Despite it being a Friday, when many students do not have classes, the atrium in the main entrance hall of the building was alive with students. I arrived exactly on the hour, when many students are rushing between classrooms, and decided to stand in the middle of

-

⁶ "Greek life" is a term used to refer to the system of fraternities and sororities on college campuses.

the lobby to increase my chances of spotting my person of interest. The student I was waiting for soon arrived; we made eye contact across the hall, and he motioned for me to follow him past the few stragglers downstairs. This floor of the building is filled with offices and labs, and is generally less crowded. Once downstairs he explained how, because of a club position he held, he had the keys to an office downstairs in which we could talk in private. He had a tight schedule of commitments, and had agreed to the interview only if I could promise that it would only take half an hour. As we settled down in comfortable swivel chairs in the small office to talk, my informant reminded me again that he could only give me thirty minutes. I assured him that he could terminate the interview at any time, and we dove into the conversation. I was especially eager to arrange an interview with this person because I knew from past meetings with him that he routinely distributed various types of drugs. When we began to talk, however, he told me that it was not economically worthwhile for him to bother selling prescription stimulants. He was, however, a regular consumer of the drugs, and our conversation mainly revolved around his use of Adderall to enhance his academic performance.

This student did not have an ADHD diagnosis, but bought Adderall from a fellow student who has a prescription. I thought that because he had already repeatedly expressed to me that his timetable was incredibly stringent, we might be talking about how Adderall was a player in his academic schedule. However, he reported that he did not use Adderall for time management, rather he used it because the drug allowed him to be interested in academic tasks

I take it for the exams that I find are very random, useless amount of information. And it's just so much that no human brain can possibly remember all the details. And I'm very uninterested in the topic (10/26/12).

I asked him if he ever used Adderall for material in which he was already interested.

I won't take it. No. I don't need to. Cause I've already focused and motivated myself. I use it for mostly motivation to start studying...the thing is, I know I will not get to the work. I'll find excuses to not do the work. However, I feel that I've taken Adderall I'm like oh I can't waste this, I gotta go study. It's almost like an incentive. Motivation incentive.

This student's use of Adderall to help him study material that he thinks is uninteresting gives Adderall yet another role, that of a motivating factor. Adderall has the power to make work more enjoyable, a facet that distinguishes it from other stimulants, such as caffeine. The biochemical pathways associated with these drugs support these observations. Dopamine is a neurotransmitter chemical in the brain that can give rise to the feelings of motivation. There must be an increase in the concentration of dopamine in the brain for this to occur. Caffeine inhibits re-uptake of dopamine, increasing the concentration of the neurotransmitter.

Amphetamines do this as well, but in addition they also cause an increase in dopamine production, allowing for an even higher concentration (Iversen 2006; Moore 2011).

Like other incentives that may help students want to study for their subjects—
pressure from parents or peers, genuine interest in the material, or the fear of poor
performance—the existence of Adderall, and off-label experimentation with it by students,
has led to it being used as a tool for that can supply motivation. This student's experience,
choosing not to sell Adderall, but instead to procure it only for himself, and even then only
for a specific academic hurdle, sheds light on how students can tailor their use of this drug to
their individual lifestyle, to aid in achieving their goals, academic or otherwise.

It is clear that a major component of the life of Adderall is its place within the academic sphere. Universities, as well as some high schools, are increasingly noting the off-label use of prescription stimulants for academic performance enhancement (Schwarz 2012).

Its existence is affecting academic culture in that it has the potential to help many students achieve their academic goals. This fact, in conjunction with fact that its accessibility to most students for off-label use, is contributing to the dynamic interplay between student lives and the life of the drug. Because of its properties and historical situation, part of Adderall's identity is currently intimately tied to student life, which is concerned with academics by definition. Therefore, many pills live part of their lives in the academic sphere.

Other Individual Uses

Because of the high rate of Adderall prescription, there are many pills in the environment. While students know that the drug is a prescribed to treat ADHD, and most are well aware of its off-label use for academic work, students also associate the pills with a variety of other practices, outside of the medical and academic realms. Most students have easy access to the drug, and Adderall is a common physical object in many students' daily lives. Adderall's proven effects can be harvested to aid in aspects of life that are unrelated to treating ADHD or doing well in school.

One of the most classic uses for amphetamine is for weight loss. Historically, amphetamines were given to young adults by doctors and parents as diet pills (Moore 2011; Iversen 2006), since stimulants can act as appetite suppressants. This is not limited to prescription stimulants, and many people use other stimulants like caffeine to suppress appetite as well. Students who take Adderall and do not want to lose weight said that they made sure to eat as usual and stay hydrated even if they did not feel hungry or thirsty. However, some students made use of Adderall to purposely lose weight.

I sat on a wooden bench outside the front door of large co-op⁷ house one late morning, a few days before Thanksgiving. It was cold and drizzling, and I was appreciative of the porch roof and the hot cup of tea I was holding. The student I was supposed to meet for an interview had said he would receive me there. It was ten minutes after the time he and I had agreed on, and I began to worry that I had the wrong address. In order to help ensure my interviewees' privacy, I never asked them for their phone numbers. I usually offered mine through email in case they had trouble finding me at the meeting place and time, but I had no way of knowing if they would use it. Sometimes while I was waiting for my participants I would receive text messages from unknown numbers with instructions about how to proceed; but usually I just tried to look as approachable as possible, and eventually someone would tap me on the shoulder and ask if I was the person they were trying to find. Thankfully, the student came to the porch after a few more minutes, introduced himself, and welcomed me into the house. We did not pass anyone as I followed him through the common area to his room, which was cluttered, but clean. We sat on two sides of a small sofa behind a coffee table, under a window. The large house seemed to be at complete rest. The student had lit some scented candles that nicely complemented the soft melody of the raindrops on the window to give the room a warm, relaxing ambiance, quite the opposite of most of my interview venues. He closed the door and told me that his roommate was not returning soon, so we could talk in privacy and peace. As I unpacked my interview materials, I noticed the candle on the coffee table in front of us was accompanied by an open can of soda, an apple, a

7

⁷ "Co-op" is an abbreviation for cooperative housing. The University of Michigan co-op system is called the Inter-cooperative Council, is comprised of eighteen houses, and is a very common living option for undergraduate students.

bag of chips, and the man's cell phone, laid out neatly in a row. I added my thermos and tape recorder to the line, and we began to chat.

The student began by telling me he had tried Adderall a few times in high school, but not on a regular basis. Now, however, after two years at the university without pursuing the drug, he sought out a prescription from his doctor in his hometown before coming back for the current term. When I asked him how he approached his physician, he said:

I just said I can't focus, my courseload is heavier this year, I have a lot more readings, it's hard for me to pay attention in class, and so they just started me up right away with it. And the next month I said...that was wearing off, and they bumped the dosage up and prescribed me three months (11/19/12).

He added that this was the first time he was using the drug for schoolwork. I then asked him what he used it for in high school, if not for academics. He replied that he had tried it a few times out of curiosity when he was fifteen, but then more regularly at the end of his high school career. Our conversation then shifted away from his personal usage towards his opinions of the Adderall phenomenon at large. At the end of the interview, as I was packing my things to leave, he unexpectedly began to tell me the reason he began taking it every day for a period of time near the end of his high school career: as an appetite suppressant. We sat down and I turned my tape recorder on again. I had read about amphetamines being used as anorectics before, but I had never heard a firsthand account of this kind of usage. A few of my other informants had mentioned to me that some of their peers took Adderall with the intention of losing weight. However, no one who made such comments felt comfortable with me contacting one of their friends who did this. At the beginning of our conversation, I had noticed that the student kept absentmindedly re-arranging the food on the table as we spoke. He would pick up the apple as we talked, stare at it, twist the stem, then return it to the table and focus his attention on the can of soda. However, by this point the student seemed more at ease than at the beginning, and we spoke about weight loss and his changes in eating habits—often taboo topics—quite comfortably. He told in me that for one month towards the end of his junior year of high school, he used Adderall solely for the purpose of losing weight.

I was just overweight and wanted to lose weight, and this was when Adderall was getting glamorized, and people were getting prescriptions. And so I was getting it for very cheap. My friends would just give it to me, and I took more and more each day. I would just eat minimal. I would eat breakfast and like apples all day for like two or three weeks, and I lost twenty pounds within that month...I mean I was happy I lost the weight, but it was just a really dangerous and not safe way.

I asked him if he considered that rapid rate of weight loss an unhealthy practice. He agreed that it was. But when I asked him if that is why he stopped after a few weeks, he said that "No, I stopped because I lost the amount of weight I wanted to. And then I was fine." There is an enormous discourse on weight loss and appetite suppression and the many factors that drive persons to pursue it, and I will not be able to do that justice here. My aim is simply to try to shed some light on how Adderall use is entering into this practice.

This anecdote is from this man's high school experience. When I asked him if he would consider using Adderall in this way again presently, he said no because he was "more aware of nutrition and exercise, and older now." It has been observed that American college students abuse amphetamines as weight loss agents (DeSantis et al. 2008; McCabe and Boyd 2012). However, the rate at which this is occurring has not been quantified. This man's story illustrates how the same person has pursued the same substance for radically different purposes at different times in his young adulthood. While he still takes the same pill every morning, like he did when he was using Adderall without a prescription to lose weight, his motives have now completely changed. His present relationship with Adderall revolves

around his academic and social life as a current undergraduate student, and the drug plays into his time management for each endeavor: he has to make sure to take it at certain points in the day to keep focused during his classes yet still be able to fall asleep when he wants to at night, while still allocating some to use on the weekends. This careful mix of food, drug, time, work, sleep, and partying shows the many aspects of student life Adderall is entering, and how it is given a different phenomenological reality, depending on which student is interacting with it and for what purpose.

Adderall is a drug, and people use drugs as tools to achieve different goals, as the previous examples demonstrate. Sometimes these are personal goals individuals have, meaning the purpose of taking the drug is to primarily benefit one's self. ADHD treatment, academic performance enhancement, and weight loss are three reasons students take Adderall to achieve individual goals. However, there are also other personal motivations that lead students to using Adderall, which leads to other recreational uses. I use the term "recreational use" to refer to the practice of using Adderall off-label, for reasons other than academics. The idea that college is an appropriate time to experiment with different substances is rooted in cultural ideas about what behaviors are appropriate for certain age groups. Many students use drugs recreationally during their undergraduate years (Boyd et al. 2011). People have the desire to interact with the substances that are prevalent in their environment, and there is an element of curiosity that often accompanies drug use in general.. When I asked one woman why she thought to try Adderall the first time, she responded: "coming to college, all of a sudden this is available. It's curiosity. It's a hundred percent curiosity, and I want to try it, see if it works" (12/9/12). Because students have such easy access to Adderall, they may

experiment with it for no particular purpose, and then begin to associate it with a certain or various practices within their student lives.

I think it's just so easily accessible these days. It's so over-prescribed, and everybody has it, and everyone's heard about it, everyone's at least tried it, so they know the effects that it has on them or other people. So they're very curious. If they hadn't tried it themselves, they want to (11/19/12).

Clearly, undergraduates are interested in trying Adderall for various purposes, or sometimes with no particular purpose in mind either.

The increase in dopamine that Adderall causes can lead to the drug producing euphoric effects, and it makes sense that students might be using these drugs because they enjoy the feeling. Other students also reported using Adderall to "get high," meaning to feel the effects of a drug for pleasure. One student said "people use it for the euphoric side effects, especially weekend partying. Because it can make you feel happier in general" (11/8/12). The euphoric effects some people experience lead to Adderall being taken solely for this purpose in some cases. "In small doses you might get a little bit of a euphoric feeling," another student added, "I think I've heard a lot of people describe it as a sunny day. Like you kind of have a lot of warm, happy aura about your day" (12/6/12). I was chatting with another student, who told me he uses Adderall to study quite frequently. When I asked if he ever takes the pills for any other reason, he responded, "Adderall's also good, if I'm in a bad mood and I take it, I won't be in a bad mood. It's like medicine, it lights me up" (11/7/12). It is ironic that my informant describes Adderall as being "like medicine" when it is in fact medicine⁸. While some students regard Adderall primarily as a medicine, to him, it is primarily a study aid, as well as a substance that provides him euphoric effects. These students portrayed the use of Adderall to get high as a personal benefit, not for social

⁸ Please refer to Part I for a fuller discussion of why Adderall has an identity as a medicine.

50

activities with other students. Like another student said, "I do know a few people who occasionally take Adderall recreationally. But when they do that I don't think it's necessarily to go out and party, but maybe to stay at home and read, play an instrument" (12/6/12). Adderall is becoming a common player in undergraduate students lives, and they frequently use it to fulfill many personal goals and to satisfy individual motivations.

Because prescription stimulants have the ability to produce euphoria, persons can crave amphetamines (Cami and Farre 2003). Some students use Adderall quite frequently, and it is possible to become addicted to the substance. One man made some observations about the ways the men in his fraternity house used Adderall:

Mainly my sophomore year when I was living in the fraternity, it was pretty prevalent. Most people would take it, mostly around finals, for exams, to help them study focus, stay up. But I had a couple friends take it more often than that. Like I had a couple friends get actually *addicted* to it (1/17/13).

Students often procure Adderall for one purpose, namely studying, and end up using the pills more frequently, and in a number of different ways. The drug begins to infiltrate all aspects of a student's schedule, and is not used for any one particular task. Instead, they are used as a general companion to the student's daily life, and everything that encompasses. And when students begin to use Adderall very frequently, they can become dependent on the substance. One of the most poignant stories told to me during my fieldwork was one regarding an undergraduate woman's struggle with Adderall addiction:

She and I had been having trouble coordinating schedules. However, she seemed really interested to talk to me, and said that if I didn't mind coming later at night, she would be free. I did not mind, and walked up the steps of the house for the interview at the designated time. She was already waiting on the porch to greet me, the only person there at the time, so I was spared my usual bout of uncertainty. She led me inside; despite the late

hour the main floor was teeming with students. I have the impression a house of that size never truly sleeps. I followed her up two flights of stairs to a small seemingly misplaced sofa wedged into a corridor in the front of the house, facing a window overlooking the street. I soon realized the reason she had expressed such interest in the interview; she told me immediately that she was a very heavy off-label Adderall user. She stared onto the dark, deserted street as she confided in me that she had battled an Adderall addiction this year. I clarified that she was comfortable sharing this experience, and she assured me that she was, and that she wanted to tell the story. Currently a senior, she started taking it for academic purposes during her junior year.

I also have kind of like a minor sleeping disorder situation...for the first three years of college, I would fall asleep in class *regularly*. Like almost daily, and not because I didn't get enough sleep, but because I'm *always* tired. And so if I took a little Adderall in the morning, or like right before class, I mean I used coffee too, I didn't fall asleep in class, and actually paid attention to the lecture...after the class day was done I would take some to do homework and try and stay focused...And I *do not* have ADD or ADHD. So that part of my brain is always stimulated normally, and then this just stimulates it more (11/8/12).

However she began taking it more regularly, until she was taking Adderall almost every day, even though she said it was not helping her focus on schoolwork in particular. She said when she took Adderall in the evenings to study she tended to focus on small details like other people in the room, or her handwriting, instead of the assignment at hand. She also began to snort the Adderall she had procured for schoolwork for social activities on the weekends.

At least five or six times a week. And about twenty milligrams a day. Usually I would eat it. I wasn't trying to get *high* on Adderall every day of the week. But Fridays and Saturdays I might bump ten [milligrams] and eat ten [milligrams].⁹

_

⁹ "Bump" is a colloquial term for "snort" in the context of drug use.

She told me she started taking it even more frequently during the summer in between junior and senior years, even though she was not in classes, and no longer using it for academic purposes at all. Thus, she began using Adderall less for school, and more for recreational purposes, leading to more recreational usage for social activities with friends. The student told me there were many factors that contributed to this usage, including that her supplier was also living locally, and that she was working, and therefore had a steady income with which to purchase the drug.

I started using it more regularly during a semester. But then when the semester ended, this past summer is when I used it the *most*...I was always drinking a lot this summer cause I just turned twenty-one. So I would take it when I went out. And for me a big factor in continuing to use it was that I noticed I was not eating as much, you know. So I was like, Oh, maybe I'll just take some today and then maybe I won't snack as much in between meals...there were a lot of factors that got me into using it more, and it was definitely when I wasn't in school. I just used it socially, really, was the main thing.

However, as the summer ended and she began this term, she told me how she started feeling like the drug was having adverse effects on her life. In the current term, her first term senior year, she has been making an effort to cut back on her Adderall use. She told me that she does not want to seek professional help in order to do this, even though those resources are provided to students.

I started taking it less because I realized I was *addicted*. And you know that's kind of a scary thing, cause it's so easy...when it's easy to get something you just want to like take it and it makes you feel good, and then you don't feel good and you want to take it more...It's just kind of a downward spiral if you're taking it in an excessive way.

The main reason prescription stimulants are so heavily regulated—they are Schedule II drugs, the same legal status as cocaine—is because of their highly addictive precursors and abuse potential. The Drug Enforcement Administration is responsible for regulating how much the Food and Drug Administration can license pharmaceutical companies to make each

year for this reason. My informant continued about her struggle with amphetamine addiction, and how it was affecting her personal and social lives:

With any sort of addiction when you're starting to get out of it, the hold it had, or like the effect it had, on your entire life. Not event just like when it comes to academics, or partying, social, just like *everything*. You know, relationships can be ruined by it...It definitely changed the way I interacted with people, cause it changes the way you think because your thoughts are racing. And it changes the way your heart beats because it's an amphetamine. So it's a physical, and like emotional, mental kind of addiction effect.

This woman's example is the epitome of the unprecedented ways this pill is affecting college experiences. Once Adderall enters a student's life, it can be used for so many purposes; there is no direct path on which it travels. For one person to have used the same pill to organize her academic and social lives, as well as her eating and sleeping patterns, shows how Adderall is currently functioning as much more than ADHD medication. Students are using it as a study aid, drinking companion, and a substitute for a meal and a nap. The trajectories pills follow from production to consumption become tailored to the lifestyle of the student who is obtaining it. The pills are subject to all the practices that shape student lives—studying, sitting in lectures, socializing with other students, eating, drinking, sleeping—and thus take on their own lives through engagement in all these practices. As my informant fittingly said, "you know that this little orange pill, which doesn't even seem like a big deal because it's so common...does really have an effect on your life." While students may procure the pills for one particular purpose, once they become familiar with the drugs effects on their body, they are apt to use it for other activities. This is made possible by the sheer number of Adderall pills available in the college campus environment. In the previous examples, Adderall was used as an individual tool, and its usage was molded to one particular student's schedule and motivations. However, Adderall is often used to enhance social experiences, meaning collective experiences students share, as well. This woman's shift from using Adderall for primarily individual purposes, to more group activities shows how Adderall is affecting these different levels of student life. She procured Adderall the same way, from the same person, throughout her undergraduate years. However, she consumed the pills for many reasons. Adderall is given social life through these different modes of consumption, and the ways it can help individual students achieve personal and social goals.

Social Uses

If students have used Adderall in the past, or has it on hand on a regular basis, they are much more likely to experiment with the drug in different scenarios. As I have mentioned, physicians agree that these drugs can promote focus, concentration, and alertness in all people, whether they identify as having ADHD or not, and students with and without prescriptions divert stimulants for driving. Prescription stimulants promote wakefulness, concentration and focus, which can help someone drive safely just as well as they can help someone study effectively for a long period of time. There is nothing new about people using amphetamines to aid in driving. It is important to remember that stimulants have only primarily been attached to the ADHD diagnosis as medication recently. In the past, stimulants were commonly used by truck drivers and pilots in order for them to safely and effectively execute their tasks, especially if they had to operate vehicles for extended periods of time, or through the night. For example, during World War II, over sixty-five percent of American and British pilots reported using amphetamine to prevent distraction and fatigue (Moore 2011). College students are using stimulants for driving in a slightly different manner. For most, stimulants currently are still primarily associated with off-label academic

use. However, as time passes, and Adderall's use for academics becomes an increasingly common concept on university campuses, the use of the drug for alternative purposes, like driving, will follow.

During the last decade, there has been concern regarding people with the ADHD being incapable of driving safely. The fear is that people with ADHD will be distracted behind the wheel, leading to adverse consequences. Stimulant medication has been shown to reduce this perceived risk by decreasing the rates of collision in drivers who have been diagnosed with ADHD (Barkley and Cox 2006; Cox et al. 2011). I interviewed an undergraduate woman who only received the ADHD diagnosis as an adult, during her second year at university. She expressed that while the diagnosis confirmed her condition, she had always been suspicious that she had ADHD as a child. One indication, she felt, was her lack of confidence while learning to drive in high school:

I read an article once about kids with ADHD have trouble learning to drive, and I *definitely* did...I learned to drive and then I refused to drive for like a year. I was scared to and I didn't want to (12/7/12).

My informant expressed feeling a lot more comfortable driving after starting to regularly take stimulant medication in college. Upon noticing the effects of her medication, she felt it imperative to take her pill on days she would be driving. What is more, she began giving part of her prescription to her friends at the university for off-label use when they were behind the wheel. These scenarios were generally during leisurely road trips. "I've gone on car trips with friends, and if we're going to be driving late, or if we're going to wake up early and drive, I'll give them Adderall," she said. By giving the person who was driving at the time a pill from her prescription, this student indicated that all of the passengers, including herself, felt more secure. This action speaks volumes about how commonplace these drugs have

become to college students. Current students are so familiar with off-label usage of prescription stimulants on campus, and are knowledgeable enough about their effects, that they feel comfortable using their friends' prescriptions for social activities. The exchange of Adderall for road trips not only enforces the efficacy of the drug as a tool to be used for various student activities, but also how it can help build social relationships. The off-label use of Adderall during long car trips is seen as a safety measure, and a student will give it to his driving companion to help all the students in the car reach their destination safely. The motive behind giving Adderall in these situations is concern for people one cares for, and is viewed as a thoughtful action among a group of students.

My conversation with this woman moved from her high school experiences to her use of the pills during her junior and senior years of college. She benefitted from the effects of the drug not only in her schoolwork and on road trips, but also in other social situations like going to a concert with friends. Concerts are another social experience familiar to many college students. As Adderall use is also familiar, and students appreciate the many effects of the drug for that activity.

I have some friends who really like to take an IR Adderall before a concert...it just helps you focus on the concert more, and gives you a different view of the concert than when you're not on Adderall (12/7/12).

Adderall use for concerts can help a group of students stay awake late into the night to enjoy a show together. Another student offered: "one of my housemates took an Adderall just based on she wanted more energy to participate in a concert that was going to last till two or three in the morning" (11/19/12). Since not every student has a prescription, those students who do will dole out pills from their prescription. Or, a student who does not have a prescription, having a social event in mind, will buy a stash from an undergraduate who does.

Giving a friend a pill to participate in a group activity like a concert adds to the collective experience of the event. A group of undergraduate friends could use one person's prescription to study for exams during the week, drive twelve hours to another city on Friday, and then participate in a weekend rave. The exact same pills, from the same bottle, can easily be put to use for all these activities. While the pill is enticing in all these scenarios because it is producing the same effects—focus, attention, energy—the activities themselves could not be more different. Adderall is a drug that has the power to bring students and student activities together into new categories of social experience. The allure of a drug is often based on its effects, and this is why different drugs are used for different purposes.

Prescription stimulants are an especially novel class of drugs because they can produce favorable effects in a variety of situations. Like one undergraduate woman illustrates, who did not have a prescription herself, as she casually detailed experiences with a former boyfriend:

He had a prescription for Ritalin. And so when we went to like music festivals, or we're driving somewhere for a trip for a long time, he would give me a Ritalin or two (11/8/12).

When so many students have experimented with these drugs for academic purposes, the drug almost naturally starts to enter different social spheres. I cannot help but think that this just makes sense. If you need to stay awake and operate heavy machinery, or you want to have energy dance all night with your friends, and you just happen to have a pill that will help you do so, you are bound to try to use that pill for such activities. The accessibility of Adderall on University of Michigan campus and the willingness of college students to experiment with drugs certainly do not seem to be limiting factors in terms of the number of ways Adderall can be used. What strikes me is that this use of Adderall is not limited to individual

experience. Drugs are often thought of in terms of the effects they produce in individual bodies, but dugs equally have the power to affect larger structures and interpersonal relationships. Students give pills to their peers in such situations to enhance their collective experience of social events. If a group of students spontaneously decides to take a long car trip, or to go to a rave, and needs to be awake and alert to enjoy each other's presence and the venue, they can choose to use Adderall as a tool to help them achieve such goals. In this way Adderall has the power to play into fun, social aspects of the undergraduate experience as much as the individual aspects, and affects how college students organize their time and navigate their social relationships.

The use of Adderall for drinking events, an integral part of undergraduate culture, shows how the drug is penetrating into yet another important aspect of college life. Many students on University of Michigan campus report using alcohol frequently, often in excessive amounts (Boyd et al. 2011), and these trends are present on college campuses across the nation. While some students might be procuring Adderall solely for the purpose of drinking alcohol at social events, most students I talked to had Adderall on hand for academic purposes, or as ADHD medication, and then used some pills for the recreational purpose because they were already in their possession. Students repeatedly mentioned using Adderall to go to parties or bars, where alcohol was always present and consumed. These were social events and generally took place at night, generally during the weekends, as well as sometimes during the day in relation to sports events. Because Adderall is a stimulant, it affects the user differently when coupled with a depressant like alcohol. Said one undergraduate:

People ask for Adderall to go out on a Friday night, not just to help them study or write a ten page paper...The majority of people that I see taking Adderall when going out, they are drinking (11/19/12).

In recent years, the concept of mixing caffeine with alcohol has increased. For example, caffeinated energy drinks like Four Loko are now on the market, and some people mix highly caffeinated energy drinks like Red Bull with various alcoholic beverages. Students reported using Adderall in conjunction with alcohol to elicit similar effects. Methylphenidate (Ritalin) has been shown to allow partying students to be able to drink more alcohol (Svetlov et al. 2007), and the similar effects occur with Adderall and other stimulants. Stimulants allow people to experience the effects of alcohol in different and sometimes disagreeable ways.

One undergraduate man reported taking Adderall before drinking at a fraternity party:

I started drinking after I took the Adderall, and I wasn't drunk at all...I was talking to someone, I was like sixteen or seventeen drinks in, but I was like, I'm completely sober...And then over the course of twenty minutes I went from sober to blackout completely (1/17/13).

As this anecdote shows, Adderall use at parties—where there is generally alcohol—changes the way students are used to interacting with other recreational drugs and each other. The woman who was on prescription stimulants from CAPS her first two years of undergrad detailed a similar experience she had at a football game during that time:

It's so, so terrible to drink on Adderall. You blackout. Cause you don't realize. You don't remember. Some of the stupidest things I have ever done...One of the most terrible football Saturdays my sophomore year was when I had taken my Vyvanse in the morning and then just drank a ton. *Very terrible things* happened that day, and when I hear that people are like Let's take an Adderall when we can stay up and party when we've already been drinking, I'm just like *Don't do that* (12/9/12).

She continued with an anecdote about a trip she had taken with other University of Michigan student ski club:

We had all taken Adderall and then we went and drank a lot at the bar, and everyone was *so fucked up*. Because you have that up and you have that down and your body just doesn't know what to do. Just, no filter. That's the word I'm looking for. Literally just no filter, you don't care what you say, you don't care what you do, you don't care if you offend someone.

I give these examples not to highlight the fact that undergraduate students drink excessively, but rather just to show how Adderall usage is playing into this already established cultural practice. Students consume alcohol at various social events. This practice is an integral part of undergraduate culture, and would occur without the existence of Adderall. However, clearly, the cultural practice of drinking alcohol at social events is altered by the introduction of Adderall use in conjunction. Students value being able to drink a lot of alcohol. Adderall is a tool that can help them do this, and therefore becomes a valuable commodity in many undergraduate social situations.

Students also shared that they Adderall to enhance their partying experiences in other ways. I met with one man in the basement of the Michigan Union. Our conversation was incredibly choppy; I would ask him questions and he would mumble minimal responses. I could not tell if he was disinterested in the interview, or if he was simply shy. When he began to detail the purpose for which he liked to use Adderall, however, I was certain it must be the latter. He told me that he often feels awkward in social situations, and that taking Adderall before going to parties helps him be more outgoing. He enjoys the feeling of being social, and having the confidence to talk to students he does not know in these situations. However, he feels like the drug helps him do so more than he would feel comfortable doing without it.

I used it at a party where I wanted to be more outgoing and social...I combined it with a bit too much alcohol...At the start I was acting kind of normal and outgoing and stuff, but towards the end the combination overwhelmed me and it just sort of shut down my higher thought processes (11/19/12).

This student did not enjoy this particular experience using Adderall for a party. However, he also mentioned that that time, of the group of friends he attended the party with, he was the only one who had taken Adderall beforehand. In prior situations where he had taken Adderall to go to a party, a few students would do the same and then they would all go to the party together. He remarked "if friends want to take it at the same time as me, that's when it becomes enjoyable." The use of Adderall for parties and drinking, culturally significant social practices for undergraduates, illustrates how Adderall is doing more than shaping students' medical or academic lives. It is being used as a tool to give social experiences another dimension and changes the way students are relating to each other.

Use by Groups of People

Students are also using Adderall for social activities that build a broader sense of community. One student told me about "work holiday," a day that his co-op allocates at the beginning of each semester for all the housemates to get to know each other, and work on cleaning, renovation, or art projects in the house. "We work from nine to five. No matter what, Adderall helps us be more efficient and have more fun. Work holiday is about building our community, and Adderall brings us together" (4/2/12), he said. This use of Adderall by a large group of students at the same time to achieve common goals builds a sense of community by helping them initiate social relationships with their fellow housemates, and better the environment they will all be living in together for the next few months. Another one of my informants also lived in a co-op house that dedicates certain days every semester to a large house-cleaning endeavor. During these days, every housemate is assigned a chore, and they all clean for the whole day. He told me that during one of these cleaning days, one

of the residents was walking around the house, and openly offering fellow housemates five milligrams of Adderall to help them be more productive in completing the chores. "My house has day long initiatives to clean the house and work on maintenance projects. Some housemates use and distribute Adderall to keep people motivated," he told me (10/7/12). Here Adderall is being used as a motivating factor again, as I previously illustrated it sometimes is for academics. However, in this case it is for motivation for non-academic work. College students could very well use Adderall they have on hand to memorize flashcards and clean rain gutters. They are both mundane jobs that some undergraduates have the responsibility to complete, even if they do not deem them interesting. The, academic and social activities that make up undergraduate life are interwoven, and the many tasks they encompass need to be completed every semester. By virtue of its properties, Adderall has the power to band these activities together, and is a useful tool for student life at large. Students are using Adderall as a tool for motivation for cleaning so they can complete their chores in a timely fashion. This extra time could be used to study, sleep, or spend time with fellow students. The group-cleaning day is in itself a social activity, and the use of Adderall by these housemates shows how the drug is used for a group of people to work together and share similar experiences, and how it can give a sense of belonging as a member of a group.

It is clear that these little orange pills are having drastic effects on student lives, and it is equally clear that these effects are not restricted to any particular action by college students. Rather, they are infiltrating all parts of the undergraduate experience, and are perceived positively and negatively by students given the situation. Outside academic or medicinal purposes, there is a plethora of other uses for which students are exploring how Adderall will change these events for them. Sometimes they are used in a social sense, to

interact with other students in some way, but other times to accomplish personal goals. Adderall is becoming such a chameleon of a drug on university campuses that sometimes students just have it around, and decide to use it for various purposes as they present themselves; it was not obtained with a particular purpose in mind.

I am sure there are practices for which prescription stimulants are diverted that I simply did not hear due to the time constraints of my study. However, even by speaking with the number of students I did, many uses presented themselves. These uses show how Adderall has the potential to impact more than student bodies and minds. While it inevitably does this, it also has the power to impact how they set priorities, organize their schedules, and interact with one another. The sheer number of practices shows how currently prevalent Adderall is in the university environment, how familiar its effects are to many students, and how readily it is being experimented with by college students to aid in achieving their many goals. Adderall is a commodity that is being consumed by students to help them accomplish individual goals, to have desirable interactions with other students, and to promote a pleasant community atmosphere. Thus, it is a factor that contributes to multiple levels of human experience, and its malleability allows it to almost take on a life of its own.

Students are using Adderall for numerous practices, and it is shaping human experiences just as much as people are shaping its role in society. The drug has the power to unify many experiences of student life, and is thus a valuable thing to always be surrounded with. The number of modes of consumption of this identically produced commodity show how the pills can follow vastly different trajectories from the production point to their end. Adderall is a valuable companion to a student in the classroom, at a party, in the car, at a concert, and many other places. Its flexible nature allows it to be a commodity that is valued

for every aspect of student life, and in turn pills are given their own social lives by being able to participate in everything students do. In the next section, I will illustrate some of the decisions and actions that take place for these identical, mass-produced pills to be able to be consumed in these various arenas, and use that to demonstrate how the pathway from the pills' production in the medical realm to their consumption by diverted means is another factor in the lives they lead on college campuses.

Distribution and Exchange

When your friend calls you, panicked for her exam tomorrow, you immediately take her the Post-It Note with the second pill. The pill is small and easy to transport in the slip of paper. By virtue of its near invisibility, you know you can give the pill to your friend wherever she happens to be. You meet her at the library. She insists on giving you a five-dollar bill for the pill. You exchange the papers readily because she is a close friend, you want to help her, and know you can get more Post-It Note packets anyway.

How do students get Adderall?

There are two waves of distribution of Adderall that need to be taken into account when examining the trajectories the pills follow as they travel between their modes of production and consumption. The first is when students obtain Adderall through pharmacies. While some pills are consumed at this stage, students also obtain Adderall from other students; this diversion is the second wave of distribution. The transition periods between these stages in the lives of the pills shed light on relationships between the people exchanging them, as well as the values Adderall is attributed with.

I have heard that the longer-acting stimulants, Vyvanse, extended release Adderall, and Concerta, are less likely to be diverted...that's the one [the IR] that I think is more diverted. For that reason, if a student is interested in something like Vyvanse or Concerta, I'm much more comfortable prescribing it (CAPS Psychiatrist, 11/1/12).

The above physician's comment demonstrates her concern about the diversion of the stimulant pills she prescribes, especially Adderall IR. Health practitioners are not blind to the fact that these drugs have a street value, and that there is a student network of exchange through which these pills circulate. The practitioners I spoke to were all uncomfortable

regarding the reality that a part of the Adderall they prescribe is being diverted. Because of the illicit nature of the practice, and the large scope of the trade network, the rate at which students are diverting Adderall remains largely unknown. Stimulants are Schedule II substances, meaning the government places strict restrictions on the amount of Adderall that is produced and therefore available for exchange between students. However, the exchange of Adderall between students was common enough that all the students I spoke with acknowledged that it occurs on campus, and most had at least seen these transactions take place, if not participated in them firsthand. Even though Adderall is a prescription drug, it seems to be easily accessible to many undergraduates.

I definitely think a big majority of undergraduates here are prescribed it, so it's really not difficult to find...Kids that are prescribed it, they're usually overprescribed. They're prescribed a lot more than they actually need, so they have a lot extra to give out (11/2/12).

Even though Adderall is only entering the system through prescription, this student as well as many others, attests that it is very easy to find. Given the ease with which students procure Adderall on campus, I was interested in speaking with undergraduates who distribute the drug. A large amount Adderall diversion comes from students with prescriptions giving or selling pills to other students. I spoke with many students involved with sharing some of their pills, or procuring Adderall from friends with the medication. A student who has a prescription said, "I just like to carry it around, because my friends might need it" (11/19/12). Because he has the potential to distribute pills over the course of the day, he chooses to carry his medication in his backpack at all times, even if he has already taken his Adderall for the day in the morning before leaving his house. Adderall pills move around campus in the course of a day like the students do. They go wherever students go, and are used to do many tasks that come up through a undergraduate's day. When I asked students how they came to

find someone who had a prescription, and how long it would normally take to procure the drug from that person, a standard response was:

Definitely by word of mouth. There's no advertisements...I mean definitely within a week, for sure within a week. I mean it's not like it's being shipped from Colombia. It's just finding the person, that's all. And meeting up with them within two busy schedules, that's all. And if you know the connection already, a couple hours (10/26/12).

Prescription stimulant drugs are definitely accessible if a student desires them; there are clearly enough pills present in the university environment. The above student raised an interesting point about the drugs being produced domestically. Although he was being sarcastic, he illustrates how other drugs might be coming from farther places, or through more difficult means of transportation, which can affect pricing and accessibility. Adderall, while it is somewhat restricted by government regulation and the fact that it is a prescription drug, is still available throughout the year on university campuses.

There seem to be many reasons why students who have a prescription might be willing or eager to part with their pills. The monetary incentive is one of the primary reasons, but there are other motives behind the trade of Adderall as well. I was curious as to how the students who sold Adderall viewed themselves. Did they see themselves as illegal drug distributors, helpful friends, kind strangers, a mixture of these categories, or as having a separate identity altogether? My previous informant continued, describing the students with prescriptions from whom he buys Adderall:

They want to make money. And they feel like they can ration their amount as needed, as opposed to taking it daily... The dealers are usually friends. And they're usually people who aren't *dealers* that you would like think of, Oh he's got a gun and a bag of weed. They're usually just normal kids. They're going to make three or four dollars on their pill, and they help out whoever.¹⁰

_

¹⁰ "Weed" is a colloquial term for marijuana.

The reference to these students as "normal kids" shows how casual and normative these transactions seem to undergraduates. Students who obtain Adderall do so from other students who are like themselves, and it flows between undergraduates with ease. Students also do not trade Adderall solely for the purpose of monetary gain. Adderall is often given for free with feelings of social solidarity. Students are willing to give their friends, people whose goals, motivations and mindset they can relate to, Adderall to help them achieve whatever they are using the drug to achieve.

It is important to remember that the primary source of Adderall will always be through prescription, whether a student is procuring the drug from someone with a prescription, or by getting his own prescription. Additionally, some markets emerge in which there are middle men, meaning there is a person in the distribution network who buys generally a sizeable amount of Adderall from a person with a prescription, and then sells those pills to other students, generally for a profit. While it is a felony for anyone to distribute or sell prescription medication, whether they have a prescription or not, these middle men were harder for me to contact, perhaps because this practice seems "riskier" in some way. Whenever a student mentioned using this kind of supplier for Adderall, I asked if they would be comfortable giving me the contact information of that person. The response was always that they did not feel comfortable potentially jeopardizing their relationship with the supplier in any way, which might happen if they mentioned my study to that person. During the first month of my fieldwork, as I was contemplating whether forming a direct relationship with someone would be the only way to speak to someone in this role, I interviewed a person who engaged in such practices somewhat by chance.

I met him at a house off-campus around dinnertime. One of his housemates welcomed me into their foyer, and said that my informant would be downstairs to greet me shortly. He arrived and introduced himself—we had only been in contact through email before—and disappeared into the kitchen, reappearing with a tower of grilled cheese sandwiches in a napkin. We explored the house for a place to talk. Finding people in every room, he wordlessly motioned for me to follow him outside, and led me to another house on the street. I followed him into this other house and down a narrow flight of stairs into a basement room. The room was dimly lit, and was furnished only by an odd assortment of old couches. It was exceptionally quiet, and we sat on either side of one of the sofas, facing each other slightly, with the tape recorder on the middle cushion. The interview was progressing reasonably comfortably, but after about half an hour and a couple sandwiches, my informant seemed to relax much more, and the conversation flowed with greater ease. He mentioned that he had something he wanted to tell me after the recording was finished. I assured him that the whole study, recordings included, were completely de-identified and confidential, but that we could turn the tape recorder off if he preferred. He pondered this for a few seconds, and then said I could record what he had to say if it would never be traced back to his name. After I reassured him of the confidentiality, he proceeded to tell me that he regularly bought and sold marijuana, and that he has incorporated Adderall sale into this endeavor. "I buy it and I distribute it. Not a lot. Not in huge amounts. I have people come to me. I sell for five [dollars] a pill" (11/7/12). I asked where he obtained a large amount of Adderall, as he had mentioned not having a prescription himself.

There's a guy who gets three prescriptions a month, that's ninety pills. He doesn't take any of them... I'll trade him. I'm giving him weed, he's giving me pills, and then I'm selling the pills for money. I give him the equivalent market value fifty dollars worth of weed...and then he gives me ten twenty

milligram pills, worth five apiece. So where am I making money? Well because I can get the weed for cheaper than market value...The exchange rate is an eighth of weed for about ten [twenty milligram instant release pills]. So when you think about it, an eighth, market value, about fifty bucks. Basically I'm paying him five a pill in his mind, because he's getting that much weed. But because I'm paying less for the weed, I'm [paying] like two-fifty [per pill].

When I probed him about his motivations to buy and sell Adderall in this way, he explained his system in greater depth. His motivations were mainly to take the drugs he wanted without losing any money himself:

The reason I do this is that when I'm taking them, I'm not paying five a pill, I'm paying zero a pill. By profiting off selling to other people, I'm not actually costing myself out of money to abuse this drug. And that's the same thing I do with other things too. Weed obviously...Now I actually can't get my hands on enough to make this into a way to make money...not enough pills. I can get plenty of weed. The reason I do it is so that *I* can take it for free, and then okay, there's a little extra trickle of money... For me, I don't want to be taking Adderall and paying for it, so I'd rather let my friends who want to take it also pay me to take the Adderall that I want to take.

He expressed that even though he is not making that much profit from the pills, he would not consider expanding his Adderall business. He is satisfied with the benefits, monetary and not, that result from the venture.

I could find other suppliers, but I have no desire. My system does what I want, which is allows me to take it for free. It doesn't take much time on my part. Sometimes there's perks. When a hot girl wants Adderall, and I go and meet her at the library, you know, *great*...Any business is also a social tool.

His expression of taking advantage of the ability to sell Adderall in a way that allows him to confer social relationships with other students adds another dimension to the motivation he has to engage in this activity. He is making the choice to do this for his own academic interests, as he uses Adderall to study, as well as for financial considerations and to fulfill social desires. My informant seemed to portray this as a win-win situation. The person he obtains the pills from is satisfied, he is satisfied, and the people to whom he sells the pills are

satisfied because they want use Adderall as a tool in their own lives. He always has business on campus, or as he termed it, students are always "hitting him up." The only potentially adverse situation I could imagine would be if my informant encountered any legal trouble. But when I asked if he was afraid of the possible legal consequences attached to this activity, he responded:

Is it risky? Depends on who you deal with. I don't solicit customers. I don't allow my customers to tell other people I exist. If someone asks one of my customers for it they have to clear it with me if I'm willing to accept them as a new person. I'll meet them first, before any talk happens... I run a tight ship.

He also did not seem worried that his investment in purchasing Adderall would not at least result in him breaking even, if not making a slight profit, which is again a testament to how much of a market there is for these drugs on university campuses.

I have very good friends who consistently grab a lot of it. Not to distribute, to take. You know, everyone's always hitting me up. I have plenty of friends. If ten people hit me up in a week, for two pills a piece, *twenty pills a week?* I can't even get my hands on that many. So, *people take their Adderall*.

Adderall trade seems to be so prevalent in a university environment, that both selling a few pills or a whole prescription seem totally within the realm of reason. And indeed, as these previous examples show, both modes presented themselves through the course of my fieldwork.

Where Do Students Obtain Adderall?

When drugs are confined to certain spaces, the social relationships and personal identity changes that are conferred by the drug are in turn similarly confined to those spaces. Students are only able to exchange and use alcohol, marijuana, and tobacco, and other very common drugs, in particular places. This in turn leads to student practices with the drug

being confined to certain physical spaces. For example, the physical nature of marijuana makes it a lot less discrete than pills, and students are therefore often more restricted in terms of the places they obtain marijuana than the places they obtain diverted Adderall. Other substances, like alcohol and cigarettes, are also restricted to particular spaces by law. Persons under the age of twenty-one who engage in alcohol use are often careful about the spaces in which they do so as it is illegal in the United States for them to be in possession of alcohol. Even for persons above twenty-one, it is illegal to possess alcohol in many public spaces, and alcohol is often restricted to certain spaces like bars. Cigarettes also are used in certain spaces, by certain groups of people: for example, my fieldsite, The University of Michigan, placed a ban on smoking near campus in July, 2011, and many students supported the decision of the campus going "smoke-free." Such environmental restrictions seem to have no bearing on Adderall trade, and the pills transcend the physical restrictions a lot of drugs are bound by. Unlike most other drugs college students regularly use, Adderall is free to move and be consumed easily in all parts of a campus. Broadly speaking, wherever an undergraduate is on campus at any given time, Adderall could very well be, which adds to the complexity of the commodity's social life.

It is clear that the drug is moving between students on campus quite frequently. Through the course of my study it became equally clear that the social interactions between students during which Adderall is traded take place in a variety of different places. I heard accounts of these interactions in all sorts of spaces where students normally spend their time: homes, dorms, classrooms, coffee shops, restaurants, academic buildings, et cetera. Some students commented that the library, a place where many students do academic work, was a very common space for transactions with Adderall to occur, and this makes sense given how

much of the diversion is in regards to academic practice. However, these students mentioned a lot of other spaces as well:

Library, houses, restaurants...I mean I've participated in it, so a lot of places. But, yeah, library is the most common place I see it. But any meeting place where two people, one with it, someone who wants it. Whatever's most convenient, it's a quick little slip (11/7/12).

I've been at the library when it's done. I've been at rooms, friends' houses. Everywhere, cafeteria. It's not a hard thing to do, you can do it very casual…like if your friend's popping it, they're like Oh here you go, then you just give some cash (11/19/12).

The physical nature of pills allows them to be traded with convenience and ease in places that other drugs are not. This allows Adderall to easily enter more social spaces than other drugs college students commonly use, and can therefore be consumed in more scenarios. The fact that Adderall is a pill, and is available in tablet and capsular forms, greatly affects the modes by which it is able to circulate on a college campus. Drugs in pill form are easy to transport and conceal due to their small size. Pills also stay viable for relatively long periods of time, increasing the amount of time a student may be in possession of such drugs. These facts contribute to the reasons Adderall can be traded in more public spaces than many other drugs. As I will demonstrate, pills can also be regarded very casually in our culture, expanding the places in and modes by which students trade Adderall, and the ease with which students procure the pills is not only related to their physical size, but also these casual attitudes towards the drug.

Why Adderall?

Students divert Adderall to aid in academic work or for recreational purposes.

However, there are a lot of alternative, easily accessible substances available on a college

campus that can aid students in achieving these goals. In certain situations, students prefer to use Adderall as opposed to another substance. The number of drugs Adderall can "replace" at points in a college student's life shows how the social identity of Adderall is particularly flexible, and this is due to the physical nature of the drug, as well as its effects being valued in various scenarios. In the 1970s, Romanian psychologist and chemist Cornelieu Giurgea coined the term "nootropic" (Moore 2011) Although, none of my informants used the word "nootropic" specifically, I think the term is very valuable when thinking about stimulants in relation to performance enhancement. Nootropics are defined as "drugs, supplements, plant chemicals, and functional foods that improve mental functions, including motivation, cognition, memory, intelligence, concentration and attention" (Moore 2011). Dr. Giurgea is famously quoted saying "Man is not going to wait passively for millions of years before evolution offers him a better brain" (Smith and Farah 2011). In terms of undergraduate academia, this certainly seems to be the case. There are other substances that students regularly take to help with their academic performance, namely caffeine. Students use caffeine to stay awake for long hours and focus; they generally drink beverages like coffee, tea, soda, and energy drinks. Caffeinated drinks are extremely accessible on University of Michigan campus, and are not under the strict government regulations Schedule II drugs like Adderall are. The quest for a better brain is not even limited to drugs; the concept of brain food is very prevalent in our culture. Celebrities like Oprah, Dr. Oz, and many others often tell Americans that certain foods will help enhance their cognitive functions. Just as certain foods are considered good for the body—take for example the relatively new discourse on organic food—there are also foods that are considered good for the brain, and these ideas are

rooted in cultural opinions. I would doubt that any student is exempt from hearing these claims at some point. As one student put it:

Obviously sleep and good diet are two of the best medicines out there. I think those would help people concentrate more than the drug...I know I don't get enough sleep, and in college the diet is pretty pitiful a lot of the times...Time and budget of course...two dollar slices of pizza for breakfast? Not the best way to start your day. Not like a bowl of cereal and some orange juice and some greens, some brain food (12/6/12).

Another woman equated Adderall with healthy substances in the same way people sometimes view other food or drug options: "I think that people think it's like, like a vitamin. I'm boosting up my brain" 1/17/13), she said.

With stimulants like caffeine and "brain foods" available, some students still have reason to prefer using prescription stimulants. As I continued my fieldwork, I began to be more interested in why college students are turning to drugs like Adderall when they have plenty of non-prescription stimulants options. In response to the question: "why Adderall?" many students responded that it was just the best option, most economical and most effective. They also mentioned not appreciating the side effects of coffee and energy drinks. As one student said, "a lot of people don't like coffee or energy drinks. [Adderall's] the immediate effect, it's pop culture, it's what's getting talked about" (11/19/12). Many informants echoed the view that Adderall was a quick, easy fix for academic performance enhancement.

Adderall is a very quick fix. Pop it in your mouth, drink some water, wait for it to hit, then you just go. I would say Adderall is nicer than other things, because it's cheap, it's a quick and easy fix to a problem (11/20/12).

The fact that Adderall comes in pill form contributes to this ease. Just as a drug being in pill form makes distribution and transportation easier for college students than other drugs, it also gives a connotation of convenience in terms of consumption. While it may seem almost

tiresome to drink cups of coffee over a long period of time, a student can swallow a pill in a few seconds and be alert and focused for the whole night.

It's probably the most potent, for some it might be the most bang for your buck. We also live in a very pharmaceutical society, where there is a pill solution for everything, they're very no hassle. You can just pop them and be on your way. No one knows you're on a drug necessarily (12/6/12).

As this student's comment shows, the increase in production of pharmaceuticals is making them just as prevalent and accessible to students as drugs like coffee. Pills also have an advantage in that they are discrete. Peers will notice if their friend consumes three Red Bull cans at the library, but they might not necessarily notice if their friend is consuming Adderall pills. This is not to say that all students do not want their friends to know they are taking Adderall. In some cases people were extremely open about their use of Adderall. One student shared an anecdote regarding one time he took a break to use the restroom while studying in the library.

Not necessarily like Oh I'm going to take this so I can drink all night, or I'm going to take this so I can, you know, play guitar for the next few hours. It might be just like Oh! Pop it, and figure it out from there...Pills are very casual in our culture. I've seen people crushing up Adderall on the bathroom sink of the Grad Library...I saw somebody, very casual, they didn't even, they were just like Oh what's up man? and I was like, Just washing my hands (12/6/12).

His perspective shows how nonchalantly students interact with these pills. Some students are incredibly familiar and open with Adderall, and this is partially due to Adderall being a pill, instead of another physical form.

The practices with pills can change depending on the mode in which the pill is taken.

Some students, like in the previous example, crush and snort Adderall for studying.

However, I heard more accounts of Adderall being snorted for recreational uses, like parties, because the drug has a quicker effect. One student described getting ready to go out in a

group with friends. One woman in the group "Crushed up orange powder on her iPhone. Cause a lot of people snort it off iPhones cause it's a smooth flat surface...she was snorting Adderall before we went out to the bar (12/6/12). When I asked why she chose to snort Adderall instead of use another stimulant, he replied that Adderall is sometimes used as a cocaine substitute. It is often more easily accessible to students than cocaine, and is cheaper. "Kiddie coke is nickname. Less than cocaine, kiddie coke." Adderall has the value of cocaine to some students, and can be used as a cocaine substitute, allowing it to play into cultural practices that are conferred when people exchange and that substance. The use of Adderall as "kiddie coke" is tied to the belief that Adderall is less strong than cocaine. Many times, students mentioned that Adderall was not a "hard drug," while other uppers like cocaine and MDMA were. This property allowed them to exchange and regard Adderall affecting their bodies in less intense ways than other substances.

I don't consider it a hard drug. There's no physical withdrawal…like people get mentally addicted to their phones. I mean c'mon. Phones aren't a hard drug. I don't consider weed a hard drug. Adderall's the same way (11/20/12).

When students described drugs in this manner, I could only imagine them putting stimulants on a spectrum, with caffeine being the least hard, cocaine being the most, and Adderall in the middle. The perception that Adderall is not as hard as other drugs is linked to its partial identity as a medicine. Not only are Adderall and other prescription stimulants considered ADHD medication, but the ADHD diagnosis is traditionally meant for children. Therefore, the pills have a more benign connotation in many college students' minds. There is a perception that if elementary school children are told to take them every day, how bad could they be? "Since it's prescription it gets less of like you know a stigma than like weed or

other drugs people take in college...It can't be *that* bad for you. You know, it's prescribed, to like *kids*" (11/8/12) one woman commented.

While the existence of Adderall in the medical sphere has these benign connotations in some students minds, this property also allows it to be thought of as more powerful than caffeine. The identity of Adderall as a pharmaceutical makes it seem like it is more effective: a "real" drug. The fact that Adderall comes in pill form often makes it seem like it is a better option in terms of substances to aid with academic work than drinking coffee or energy drinks. Often, students cited that the reasons for using Adderall was for its supposed medical efficacy. "I know a lot of people who will drink Monsters or 5-Hour Energy to stay awake and keep up, and I think that Adderall is just stronger...Cause Monster's really bad for you actually" (11/14/12), said one woman, demonstrating how Adderall is seen as more efficacious for studying than caffeinated substances. Just because students may use Adderall for activities for which they might have used caffeine or cocaine, however, does not mean that they will not use the non-prescription options. Sometimes these drugs are used in tandem, or particular students may enjoy using Adderall for either academics or recreation, and another substance for other activities. Students seem to be constructing their own amalgam of stimulant use; they decide how much of what kind to use when. Undergraduates are becoming more familiar with Adderall use as evidence in the way it is causally regarded, and it seems to becoming such a popular stimulant option.

What is Adderall Worth?

With other stimulant options available to students, they are still turning to Adderall in unprecedented ways. Students consider Adderall a valuable commodity, and they are thus

willing to trade money or other substances to be able to harbor its effects. Students often expressed to me that Adderall was most commonly exchanged for money on campus. They usually expect to pay money for Adderall, and, as seen from previous examples, the value of the pill is often well worth the few dollars to most students. One student mentioned that "usually there is a monetary transaction simply because people recognize that it's not free. Somebody had to pay for it. The people with prescriptions usually don't just give it out because they have a very valuable bottle" (11/7/12). From what I gathered, the standard accepted price was five dollars per pill, and most students casually mentioned this figure; "Five a pill" was common knowledge. Whether they engaged in it themselves or not, many students seemed familiar with the details of this exchange. They used terms like "IRs" and "XRs" colloquially, as well as referred to the twenty milligram instant release Adderall pills, which most students are interested in for off-label use, as "twenties," or "addy." Extended release pills are often sold for more than instant release pills because they provided the student with more hours of focus and attention, and are thus more valuable in certain situations. One student commented: "for about twenty milligrams, IR would be about four dollars, twenty milligrams. XR I think might be five or six, because it lasts you eight hours, whereas the instant release is three, four hours" (10/26/12). Students were also well aware of the prescription stimulants that were available generically, and the difference in price between extended and instant release pills.

Adderall's obviously the most common [prescription stimulant]...Extendeds are more expensive. They'll go for like six dollars for a thirty milligram pill. And then instant release is maybe like three dollars for a ten milligram pill, and then it kind of works its way up. Maybe like five dollars for like a twenty milligram instant release. It's not expensive at all (11/2/12).

If a student buys a prescription stimulant with health insurance, they are probably paying less than fifty cents per pill. Selling that same pill for five dollars can thus yield a large profit. However, other students are willing to pay that amount because it seems reasonable to them, and students selling the drug can take advantage of the high demand.

Most people sell Adderall because they want the free money basically. If they spend ten dollars on thirty pills, they can make *a lot* of money selling it for five dollars a pill...There isn't *big* money, it's more like...a little extra money, you know, for the weekends. It's not the same as selling weed or molly or hallucinogens. You can make *way* much more money with all that stuff (11/8/12).

While most people do not consider Adderall trade to be a lucrative endeavor, the fact that students are profiting at least slightly from selling these pills cannot be denied. One man shared an anecdote about his experiences in his fraternity house. He said that one of his friends, another student who lived in the house, regularly procured and sold Adderall to most of the men living in the fraternity, for profit. Within this submarket, this person easily became the primary distributor to all the men who lived in the house. As a result, they all had a constant supply of the drug, and the distributor constantly made a profit. So much, in fact, that he started giving away some pills to his friends after he had made enough money back each month:

They guy I was with at the time in the frat, this past summer, he started buying large amounts, and he gives it away all the time...he gets an *insanely* good deal. So he sells most of it, and makes way more money than he needs, so he just gives away the rest, and takes a bunch of it as well...He gets over a hundred pills at like a dollar seventy a pill, every month. So he'll sell each pill for like five or six bucks, and then make *way* more than enough money to just be able to give it away (1/17/13).

¹¹ "Molly" is a colloquial term used for MDMA: 3,4-methylenedioxy-*N*-methylamphetamine.

While most students find Adderall affordable, some commented that they thought it was often overpriced, and that the market was controlled by the value these pills have on college campuses, to help with various aspects of student life.

It's kind of a valuable commodity around UofM, definitely...I come from Grand Rapids, and it's *a whole lot cheaper* there than it is here. It might be two or three times more expensive here. Typically when you're going through a dealer I guess or something, because this is a college campus. People use it for studying, people use recreational drugs more, all of that combined (11/19/12).

It's not cheap. In high school it was as cheap as, I could probably get a twenty milligram instant release for a dollar apiece. Very cheap. But then you get to college and it becomes more of a *wanted good*, so prices are naturally higher. And I've heard as high as, at a different college...ten dollars for one pill...Or even a dollar a milligram. It's pretty outrageous (11/28/12).

Adderall's market value is shaped by the demands of its consumers, the students. As I mentioned before, students most commonly use Adderall for academic purposes. For this reason, the price of Adderall is often correlated with exam schedules, and students frequently described this phenomenon. When I asked about the exchange rate of Adderall, the most common reply was something to the effect of "finals or not?" "Around finals people are *milking it*" (11/7/12), said one student. "I mean yeah finals time, midterms time, because everyone wants it. It's supply and demand." The increase in price during finals time was noted by many of my informants, and this speaks to the academic use value these pills have to students. "Right before a test, they just jack the price way up, because you *really* want it" (11/20/12). A student who buys Adderall for off-label use every week contributed:

Finals and midterms it *definitely* goes up. I mean, the person that I usually get it from, I mean he even says, Oh it's going to be a dollar more for the next two weeks because it's midterms. And I'm just like Oh well fuck you dude. At the time I was like What? I get it from you all the time. But yeah the price definitely goes up with the demand, you know for those two weeks (11/8/12).

This increase in price did not stop this student from continuing to buy Adderall from her supplier, however, even though she knew he was taking advantage of the increase in value of the pills during finals time to make more money. But it did affect their relationship, and this is due to the fact that Adderall is considered a more valuable commodity during exam weeks. Students are clearly using Adderall more during exam weeks, as a tool to help them academically during this time. Thus the value placed on Adderall speaks to the value University of Michigan undergraduates place on academic achievement. I heard quite a few stories of students selling pills for much more than the price they paid to obtain them. The highest price I heard an Adderall being sold for:

A lot of people I knew would really overcharge depending on the time of the year. Like the beginning of the semester, Adderall's not going to go for very much. But during finals it could be four or five times as much. It's ridiculous... during finals, that same pill is going to be thirty bucks. I saw this girl, she sold it for thirty-five bucks, and it was twenty milligrams (1/17/13).

I asked if the student buying the pill knew that this was an atrociously high price. Most students, especially those buying Adderall during finals week, seem to know the average range they can expect to spend for this drug. The informant answered: "They were *really desperate*." This student's anecdote sheds light on the high value students place on prescription stimulants, and indirectly speaks to how synonymous Adderall use has become with academic work. Stories like these make it seem like Adderall is becoming so valuable, it is becoming an academic necessity in many students' lives.

Practitioners also mentioned being wary of prescribing Adderall during finals time.

They worry that students are just trying to increase the available supply of Adderall for the purpose of taking exams. Practitioners are cognizant of the street value for prescription

stimulants, and want to reserve prescription for persons they deem have legitimate medical need for the drugs.

When I get a request, a week before finals, I think I have ADD, I'm very skeptical. And I'm likely to say, Let's wait till the semester's over, and let's talk about it in January, or let's talk about it in September. And then either they're getting it from a friend, and don't have ADD. Or they really do, but this is not the time you address it (UHS Psychiatrist, 11/1/12).

Another psychiatrist spoke of patients who she suspected had ADHD. When she was determining whether or not to diagnose them with the condition, she said:

I ask them about any prescription medications they might have taken, without a prescription. And there's a *fair number* that will say, yeah, I've tried methylphenidate [Ritalin]...or Adderall prior to an exam...usually it's exam time, for studying, the students here who have said that (CAPS Psychiatrist, 11/2/12).

So in order to prevent diversion, practitioners sometimes avoided starting a stimulant prescription during times that correlated with undergraduate exams. However, as the previous student examples show, even if there is slightly less supply, it is possible to obtain Adderall during exam weeks.

Although Adderall is very commonly sold for money, I also heard it being exchanged in other ways. This shows how the exchange of these drugs is not solely for monetary gain. When I asked one student if he had seen Adderall being traded for anything else, he paused for a minute and said "Like friendship?" (11/20/12). There are social relations that weigh into how drugs circulates among undergraduates. Some students mentioned giving Adderall from their prescription to close friends without accepting anything in return.

Right now I'm prescribed twenty milligrams XR a day. And that's how much I take, five days a week...I'm supposed to take it every day, but I don't want to be as productive on Saturdays and Sundays...if I have extra Adderall, then my friends do buy them from me. It's just like pocket money...Just like close friends who know I have a prescription...if one of my close friends is like Hey, I need an Adderall, I'm more than likely to just give them one. I have

health insurance, it doesn't cost me anything. But there are people who charge a lot for Adderall (11/19/12).

Another student refused to take money when she gave some of her prescription to her friends.

No I feel weird. It makes me feel too weird...People have offered me, and I know people who do that, but I think it's just weird...Maybe if it was some random person who I didn't know. But when it's like a good friend, *I don't want to be taking their money, for something I get so cheap*. Because insurance pays for most of it (12/6/12).

The idea that Adderall can be given for free was often associated with gestures of kindness and friendship. One student mentioned her housemate procuring Adderall for all the people who lived in a house because she thought it would be a thoughtful gesture. "I know my housemate gets prescribed it...she had gotten it for our house, for exams. She was just like, I just figured everyone could use it around exam time" (12/9/12). I also heard of Adderall being exchanged for other substances, either different prescription stimulants, or other drugs that undergraduates deem as having value.

Some kids that have prescriptions they'll literally just give it for free to their friends. But also a lot of kids *definitely* sell it for money. Or they'll trade it for other things, like marijuana, or like other types of prescription drugs. I've seen like Xanax, Klonopin, stuff like that, pain killers and anxiety meds (11/2/12).

Anytime I've ever seen things that are besides money involved has been between *friends*...I think I've heard people say Oh I'll give you the same amount, money worth of a bag of weed, for a few pills. Or, I didn't have cash on me, and one of my friends had a prescription, and I was like like Oh can I get one of those tonight? I don't have cash on me, I'll stop at the ATM. But then we got to the bar and I was just like How about I buy you this drink? It's the same price. And they were like Oh, yeah, that works (11/8/12).

I even heard of Adderall being exchanged for Adderall in some cases. As one student with an extended release prescription explained, "Right now I have IRs and XRs, because I traded some of my XRs with my friend's IRs...if I want a shorter day, and I want to go to bed easier at night, so we just traded" (11/19/12). Here again, Adderall is used as a substance that

fellow students exchange to help each other out. Adderall being traded for other drugs shows the value students place on Adderall specifically; it is substantial enough that they are willing to part with some other substance in order to have the desired effects of Adderall. These exchanges also exemplify the role Adderall has on a university campus, and the life it embodies as it travels between people in that environment. The manner in which Adderall travels among students has just as much bearing on its identity as production and consumption. The exchange of Adderall is crucial to its social life, as these exchanges confer value and thus shape its identity.

The Adderall trade has clearly found a place within the overall structure of undergraduate drug exchange. In the grand scheme of the substances undergraduate students value, it has been given legitimacy. Observing where it is exchanged, and for how much money or what other substance, sheds just as much light on the identity of this commodity as does examining its production or consumption points. The pills are very small and easily transportable. As such, a large part of their time in the world is spent in storage or transit. The interactions that occur when the pills are transferred between students are affecting social relationships, and the network through which these interactions take place is complex; there are different ways they are traded, bought and sold. These exchanges demonstrate what students value, what importance they give to certain materials in their environment, how they interact with each other, and in what places. Adderall pills are a malleable commodity, and as such are defined by cultural practices for which they are used. These practices are not limited simply to why they are produced or why they enter students' bodies. They are also evident in the modes by which Adderall travels between people, and the choices that are made before a

student uses the pill. Thus, the pills' social lives are given another layer of dimension through their exchange.

Conclusion

No two pills live the exact same life. The Adderalls in the Post-It Note were produced in the same place, at the same time. They were also consumed in roughly the same place, at the same time. However, the trajectories each pill followed from its moment of production to its moment of consumption were undoubtedly marked with differences. By virtue of its place in the history of medicine, and its accessibility and its movement on college campuses, Adderall is a commodity that is currently given great value by college students in many situations, and is in turn given multiple identities. The life an Adderall pill can live is as unique as the lived experience of the student whom it is accompanying. Adderall is affecting every arena of student life, and on individual and interpersonal levels. It has been given agency when students study, party, diet, clean, and engage in many other practices, and is therefore shaped by the cultural frameworks that already hold these practices in place. While these activities collectively make up student life, the pill's involvement in these practices brings them and students together in a novel way.

Limitations and Further Work

When I started writing, I was afraid the de-identified nature of the study would limit me from properly telling my informants' stories. I realized, however, that following the pills themselves became the most meaningful way to make sense of all the varied accounts, opinions, and beliefs I heard, as well as the larger forces that are driving this drug's increased production and consumption. A story about Adderall is really just a window into the stories of all the people who make, buy, sell, trade, swallow and snort Adderall. This study focused only on undergraduate students, but they are by no means the only people interacting with

this drug, and more studies, especially longitudinal ones, would also be very interesting and beneficial. More anthropological inquiry and ethnographic data is needed to fully investigate the ways in which all people use "speed" drugs, especially as the phenomenon of increasing prescription stimulant use by Americans is still growing, and it is my hope that more ethnographic work is conducted regarding amphetamine use in the upcoming years.

The Social Life of Adderall

Adderall pills are endowed with possibility. They are tools that can be used to understand what undergraduate students are doing, with whom, where, when, and what these practices means to them. While they seem to be used for unlike situations, in reality, the pills are just playing into the student experience at large, and can be seen as a tool that is unifying its components. As Kopytoff writes:

Biographies of things can make salient what might otherwise remain obscure. For example, in situations of culture contact, they can show what anthropologists have always stressed: that what is significant about the adoption of alien objects – as of alien ideas – is not the fact that they are adopted, but the way they are culturally redefined and put to use. (Kopytoff 1986:67)

They ways the pill is put to use give social scientists a window through which to understand facets of undergraduate culture. Adderall is a perfect tool through which to observe the lives of undergraduate students, what matters to them, what they value, and why they do the things they do. These pills have taken on social lives of themselves, which intimately intertwine with student lives and can be used to understand facets of human experience.

Works Cited

- 2010 Boosting Brain Power CBS News, 60 Minutes, April 25.
- 2012 ADHD Drugs Become Popular, Dangerous Study Solution for Students NBC News, Rock Center with Brian Williams, October 16.
- 2012 Maroon 5 Lead Singer Adam Levine and Shire Announce "The Own It Project," Encouraging Adults With Attention-Deficit/Hyperactivity Disorder To Tell Their Stories Through a National Contest. Philadelphia, April 10, 2012. http://www.shire.com/shireplc/en/investors/irshirenews?id=591 (accessed March 2013).
- 2013 U.S. Department of Justice, Drug Enforcement Administration, Office of Diversion Control. http://www.deadiversion.usdoj.gov/index.html (accessed April 2013).
- American Psychiatric Association. 1994. *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC: American Psychiatric Association.

Appadurai, Arjun

1986 Introduction: commodities and the politics of value *In* The Social Life of Things: Commodities in Cultural Perspective. Arjun Appardurai, ed. Pp. 3-63. Cambridge University Press.

Appadurai, Arjun, Ethnohistory Workshop., and Symposium on the Relationship between Commodities and Culture
1986 The Social Life of Things: Commodities in Cultural Perspective. :xiv, 329 p.

Barkley, Russell A. and Daniel Cox

2006 A Review of Driving Risks and Impairments Associated with Attention-Deficit/Hyperactivity Disorder and the Effects of Stimulant Medication on Driving Performance. Journal of Safety Research 38:113-128.

- Boyd, Carol J., Sean E. McCabe and James A. Cranford 2011 Substance Use and Abuse on Campus: Results from the University of Michigan Student Life Survey
- Cami, Jordi, and Magi Farre 2003 Drug Addiction. The New England Journal of Medicine. 349(10): 975-86.
- Cox, Daniel J., Madaan, Vishal, and Brain S. Cox 2011 Adult Attention-Deficit/Hyperactivity Disorder and Driving: Why and How to Manage It. Current Psychiatry Reports 13:345-350.

Dillingham, Ian

2013 Study Strong: How students on campus misuse stimulants The Michigan Daily, March 11.

DeSantis, Alan D., Elizabeth M. Webb, and Seth M. Noar

2008 Illicit use of Prescription ADHD Medications on a College Campus: A Multimethodological Approach. Journal of American College Health 56(3):315-323.

Dumit, Joseph

2012 Drugs for Life: How Pharmaceutical Companies Define Our Health. Durham and London: Duke University Press.

Greely, Henry

2008 Towards responsible use of cognitive-enhancing drugs by the healthy. Nature 456(11): 702-705.

Greenslit, Nathan

2005 Depression and consumption: psychopharmaceuticals, branding and new identity practices. Culture, Medicine and Psychiatry 29(4): 477-502.

Hacking, Ian

1996 Automatisme Ambulatoire: Fugue, Hysteria, and Gender at the Turn of the Century. Modernism/modernity 3(2):31.

Hacking, Ian

1998 Mad Travelers: Reflections on the Reality of Transient Mental Illnesses. Charlottesville, Va.: University Press of Virginia.

Iversen, Leslie L.

2006 Speed, Ecstasy, Ritalin: The Science of Amphetamines. Oxford;New York: Oxford University Press.

Kopytoff, Igor

1986 The cultural biography of things: commoditization as process. *In* The Social Life of Things: Commodities in Cultural Perspective. Arjun Appadurai, ed. Pp. 64-91. Cambridge University Press.

Marshall, Mac, Ames, Genevieve M., and Linda A. Bennett

2001 Anthropological perspectives on alcohol and drugs at the turn of the new millennium. Social Science and Medicine 53: 153-264.

McCabe, Sean Esteban, and Carol J. Boyd

2012 Do Motives Matter?: Nonmedical use of Prescription Medications among Adolescents. Prevention Researcher 19(1):10.

McCabe, SE, JR Knight, CJ Teter, and H. Wechser

2005 Non-Medical use of Prescription Stimulants among US College Students: Prevalence and Correlates from a National Survey. Addiction 100(1):96-106.

Moore, Elaine A.

2011 The Amphetamine Debate: The use of Adderall, Ritalin and Related Drugs for Behavior Modification, Neuroenhancement and Anti-Aging Purposes. Jefferson, N.C.: McFarland & Co.

Oremus, Will

2013 The New Stimulus Package The Slate, March 27.

Petryna, Adriana and Arthur Kleinman

2006 The Pharmaceutical Nexus *In* Global Pharmaceuticals: Ethics, Markets, Practices. ed. Petryna, Adrianna, Andrew Lakoff and Arthur Kleinman. Durham: Duke University Press.

Petryna, Adriana, Andrew Lakoff, and Arthur Kleinman

2006 Global Pharmaceuticals: Ethics, Markets, Practices. Durham: Duke University Press.

Ridberg, Ronit and Amy Goodman

2006 Big Bucks, Big Pharma Media Education Foundation

Schwarz, Alan

2012 Attention Disorder or Not, Pills to Help in School The New York Times, October 9.

Schwarz, Alan

2012 Risky Rise of the Good Grade Pill The New York Times, June 9.

Schwarz, Alan and Sarah Cohen

2013 A.D.H.D. Seen in 11% of U.S. Children as Diagnoses Rise The New York Times, March 31.

Smith, M.E., Farah, M.J.

2011 Are Prescription Stimulants "Smart Pills"? the Epidemiology and Cognitive Neuroscience of Prescription Stimulant use by Normal Healthy Individuals. Psychological Bulletin 137(5):717-741.

Svetlov, Stanislav I., Firas H. Kobeissy, and Mark S. Gold

2007 Performance Enhancing, Non-Prescription use of Ritalin: A Comparison with Amphetamines and Cocaine. Journal of Addictive Diseases 26(4):1-6.

Talbot, Margaret

2009 Brain Gain "The underground world of 'neuroenhancing' drugs." The New Yorker, April 27.

Teter, Christian J., Sean Esteban McCabe, Kristy LaGrange, James A. Cranford, and Carol J. Boyd

2006 Illicit use of Specific Prescription Stimulants among College Students: Prevalence, Motives, and Routes of Administration. Pharmacotherapy 26(10):1501-1510.

Trudeau, Michelle

2009 More Students Illegally Turning to 'Smart' Drugs National Public Radio, Morning Edition, February 5.

White, Barbara Prudhomme, Kathryn A. Becker-Blease, and Kathleen Grace-Bishop 2006 Stimulant Medication use, Misuse, and Abuse in an Undergraduate and Graduate Student Sample. Journal of American College Health: J of ACH 54(5):261.