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Instrumentality: How We Develop Relationships With Objects and People

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INSTRUMENTALITY: HOW WE DEVELOP RELATIONSHIPS WITH OBJECTS AND PEOPLE

by

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Abstract

There are many different types of relationships a person will have throughout their life, each being given varying levels of authenticity, weight, and care. One's attention is primarily placed upon the meaningful relationships in one's life, but often deeper consideration of one's "lesser" relationships is neglected. Networking and professional relationships are often impersonal. Family members will often lie to each other in favor of avoiding conflict. The emotional labor of service workers often goes underappreciated and undercompensated. Careers in the political sphere revolve heavily around maintaining a positive public image, and there are well-observed disparities between politicians' stated values and their actual support of legislation. This paper looks to compare **the relationships that people have with objects** to **the relationships people have with other people**, by proposing a standardized framework through which all relationships with entities of all types are formed. I argue that the impersonal relationships we hold are closer to the kinds of relationships we have with objects. I also make the argument that we ought to recognize how our relationships with objects are more nuanced than one might commonly assume. I conclude that by more accurately conceptualizing our relationships, we ultimately improve the quality of those relationships, both in terms of how they might benefit each entity, but also in terms of how we ought to act so as not to encourage disingenuity or dishonesty.

Preface

I've always struggled with making open-ended choices. Selecting a capstone project topic has been one of these choices.

Deciding whether or not to attend a 4-year university was a simple yes or no decision. Deciding which university to attend was one of the most stressful decisions I've had to make. I was given a lot of advice, very little of which was much help. I didn't feel a strong pull towards any university in particular.

Deciding what career I want to pursue is an ongoing open decision. My original career plan was to double major in biology & nursing, then apply to medical school immediately after. I would have had the hands-on experience with nursing, paired with the "book smarts" in biology.

At the end of my sophomore year, I wasn't accepted into the nursing program. This forced me to reevaluate my career goals. Going into college, I was of the belief I was capable of handling anything, so I should take the most difficult road, to make the most of myself and my capabilities for the sake of others. I still believe anyone is capable of achieving their dream, no matter how difficult it might seem. I've learned that our goals will gradually change as we work towards them. Although the outcome usually turns out different from our original plans, I believe we can all find a version of success that we're proud of.

Upon reflection, I found I hadn't taken an interest in exploring career options within the medical profession. Maybe I didn't have time to explore because I was too focused on the coursework of a double major. But despite having numerous other commitments, I recounted I had still carved out time for new experiences. I had developed my own exercise routines. I had explored romantic relationships. I had competed on an esports team. I had squeezed in a good number of non-required elective courses. I was clearly capable of making time for intrinsically motivated desires, but it just so happened that none of these intrinsic desires aligned directly with my stated career goals. I had "decided" what career I desired, banking on an intrinsic motivation that had not come to fruition during my education. I found I could not "decide" my desires, and I instead decided it was time to begin my career journey again, this time, building from the ground up instead of from the top down. My foundation would come from prioritizing my intrinsic motivations first. What did I find interesting?

I wanted to take this approach to selecting a capstone topic. The first topic I considered for this capstone project was a psychology paper about motivation and learning. I was intrinsically motivated to study my behavior and my cognitions during college. I wanted to know how to be an efficient, effective person, and I found I had a lot of difficulty living up to my own standards of behavior. I believed I didn't sleep enough, I didn't eat well enough, I didn't exercise enough, I didn't dedicate enough time to academics, etc.. I found I fulfilled many of the criteria for perfectionism, which explained many of the difficulties I had throughout college and my life as a whole.

This led me to research more about mental health, which led me to a deeper interest in psychology and philosophy, as well as a diagnosis for depression and anxiety. I'm interested in finding an explanation for the symptoms that aren't explained by depression and anxiety. I'm primarily looking at ASD, ADHD (more aptly named executive dysfunction disorder), and BPD. I have found myself to be much less depressed and anxious, having accepted my difficulties and dysfunctions as a part of my identity. My intrinsic motivation to understand myself has given me a better idea of what career I would enjoy pursuing. Although I continue to struggle with open-ended choices, I have found that my decisions no longer feel arbitrary. I no longer feel overwhelmingly uncertainty about the impactful decisions I've had to make about my own life.

I returned to the topic of selecting a capstone project. What subject would best represent the culmination of what I have learned during my college experience? I found that the most impactful lessons came from outside the classroom. The culture shock transitioning from California to Utah, the relationships I've developed with students and faculty, and the relationships I've reconstructed with my family during my time away from home: all of these interactions have taught me much more than any undergraduate college course ever could.

My neurodivergence and my beliefs both strongly clash against the culture in Utah. (I am also not the only one who holds this sentiment, given the number of friends I know who have transferred to other schools from here.) While I've developed several meaningful relationships during my college education, I've made more rivals and strained acquaintances than friends. I've arguably learned more from my many dysfunctional relationships than I have my functional ones. I've taken a strong interest in understanding why the relationships I've had with others

succeed and fail. It is this intrinsic motivator that has guided me towards this capstone topic. I would hope that this topic accurately reflects my personal growth.

Acknowledgements

I would like to thank Utah State University for providing a supportive learning environment through which I've grown. While my college experience as a whole has not been a pleasant experience, I believe that the university has had the best of intentions in supporting its students, and I've been grateful to have had access to its academic resources.

I would like to thank Professor Rachel Robison for her mentorship and support throughout the latter third of my education. I've come to enjoy philosophy largely through her instruction, and I am grateful for the better understanding I have of the world as a whole because of her.

I would like to express my gratitude towards my family and friends that have been immensely supportive and patient with me. They are a large part of what gives my life meaning, and I've been grateful to have had others with which to share my ideas with.

Lastly, I would like to thank the many people I've shared longer discussions with. I could not have challenged my own views without equally fierce and passionate opponents. I'm grateful to have interacted with so many radiant minds to spark curiosity into a variety of topics. Resistance fuels growth, and I love the inferno of involved discourse. I would not have had anything to research if I were without questions to ponder.

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Introduction

This paper is primarily designed to illustrate one angle through which one might view relationships. It is not meant to be an all-encompassing dictionary definition of what relationships are, nor is it meant to concretely define any one specific phenomenon of interpersonal relationships. This paper presents a broad framework of concepts and ideas that can serve as a tool in bettering our relationships with others. While I attempt to explore these ideas with grounded concepts, this paper will inevitably clash with various personal beliefs people might hold. Although I do make several arguments throughout, I would ask that the reader approach this paper as an open exploration/discussion, not a debate.

This paper is primarily broken in three parts, A, B, and C. Part A will establish a framework of relationships laid out in terms of functional and emotional components, derived from materialism, evolution, and behavioral psychology. Part B will then apply this framework to the three primary classes of entities, consisting of objects, people, and concepts. Part B will also explore the nature of relationships between entities within their respective classes. Part C will then explore the nature of the specific relationship between objects and people, as well as advocate more directly for a shift in perspective.

A: Foundations of Experience in Materialism

The human condition is broadly defined as "the characteristics and key events of human life, including birth, learning, emotion, aspiration, morality, conflict, and death". Under the lens of materialism, all these defining characteristics of the human condition are grounded in physical means. The form and function of one's body is largely guided by our genetics, which is further shaped through one's environment. Our emotions are a result of electrical impulses and release of neurotransmitters within the brain. From an evolutionary perspective, an organism's behavior

is largely dictated by what increases its odds of survival (Encyclopædia Britannica 2023). Broadly speaking, we are punished for behaviors that adversely affect our species survival in the long-term, and we are rewarded for behaviors that increase the likelihood of passing on our genes. This system of punishment and reward is partially reflected through our emotions. For the majority of humans, engaging in prosocial behaviors, such as sharing and pair-bonding, are rewarded with positive feelings, like compassion, love, and joy (Dovidio 2017). Likewise, engaging in antisocial behaviors, such as stealing and inflicting injury, are typically punished, either directly via our emotions (shame, guilt, fear, etc.), or indirectly via social means (legal repercussions, ostracization, public humiliation, etc.) (Dovidio 2017).

To take it one step further, one might argue all complex human experiences are simply a product of our reactions to our physical environment. If an "experience" consists of "what we do" and "how we feel about it," both arise from genetics and our survival instinct. "What we do" is enabled by our form and function, and "how we feel about it" refers back to the emotionally-driven system of reward and punishment. We would also consider the inverse to be true; many simple experiences or sensations are required to develop more complex experiences. While not all experiences are equally complex, the principles by which these experiences are built remain the same. For example, one might consider "desire" to be a complex experience. Let's say you really want a piece of cake. There might be components of sadness, in that we feel unsatisfied without that which we crave. There might be components of anger or envy, in that others might have what we don't. There might be components of excitement, in anticipation of biting into a sugary confectionery. These emotions are reactionary; what we anticipate is based upon our previous experiences. We know from previous experience what cake is made of, what it tastes like, how much effort it takes to acquire, etc.. We might also have specific positive events

associated with cake, celebrations such as birthdays or weddings. These memories are a result of our brain's ability to store and recall information via electrical signals and neural structures. Although it may not feel this way within the lived human experience, everything within the human experience is grounded in physical means. With this in mind, I would like to consider the concept of a relationship. How do we define what a relationship is? How is the complex concept of a relationship "built?"

A: Relationships: The Stimulus-Response Definition

In its most reduced form, one might consider a "relationship" to be a response (or set of responses) we have tied to a specific stimulus. These stimuli can be external, as is the case with most things we interact with in our environment, but they can also be internal, as is the case with emotions and cognitions. These responses (which can also be both internal and external) will induce some sort of physical change. To reiterate, emotions and cognitions are created via neurons that conduct electrical impulses and chemical neurotransmitters within the brain. Additionally, memory development is a critical internal response we have with nearly all stimuli. When we are exposed to a stimulus, we are inclined to remember it, whether consciously or subconsciously. Almost without exception, our response to any given stimulus is greatly influenced by previous interactions with either the same stimulus or similar stimuli. Even in cases where we have not been exposed to a given stimulus, the specific stimulus is conceptualized as an "unknown stimulus," and our reaction usually involves some element of "exercising caution." We might assume the default of most relationships to be in an "apprehensive state," in which we are primed to intake a first impression.

When we think of a "relationship," we typically think of the kinds of emotional bonds we share with other humans. Romantic relationships, friendships, parental relationships, etc.. are all

stimuli that involve responses to individual people in a variety of circumstances. We might also typically extend "relationships" to include groups of people. This would include emotional bonds with larger family groups or specific communities. We have experiences with people, which develop memories, attitudes, and emotions that become associated with that person or collective group.

However, people are just one subset of stimuli. Virtually everything can be considered to be a stimulus. In the same way that we can develop memories, attitudes, and emotions that become associated with people, we can develop memories, attitudes, and emotions that become associated with objects and even abstract concepts. Relationships are not limited to being held exclusively with people.

We might consider internal responses, in and of themselves, to be a stimulus. In other words, we develop attitudes towards attitudes. This is often the case when we engage in self-reflection. For example, I might develop an anger (an attitude response) towards papercuts. I might then develop an anger towards young children screaming on airplanes. I might then develop an anger towards lip smacking noises. I might then notice that I am engaging in an anger response quite often, and (ironically) develop an anger (an attitude response) towards my own tendency to become angry. The thought of the emotion itself has become a stimulus that I develop a response to. The field of psychology recognizes this relationship that one has with their internal responses. Cognitive Behavioral Therapy (CBT) is a widely successful type of talk therapy that involves becoming aware of these relationships with our attitudes, in order to improve these relationships with our attitudes (Mayo Foundation for Medical Education and Research 2019). Treating these attitudes as distinct entities is what allows CBT to work effectively. The process is not framed as fixing a dysfunctional person. It is instead characterized

as continuously and actively improving a relationship that one has with certain behaviors and attitudes.

One might object that the human body treats people as stimuli differently than objects or concepts as stimuli. However, the body is full of redundant systems. An example of this is the human body's stress response. When the body recognizes itself as being at risk of injury or death, for example, while being attacked by a wild animal, the body releases cortisol and adrenaline. The chemicals released in our brains trigger signals in other organ systems, signals that dilate our pupils, increase our blood flow, and increase the amount of glucose in our bloodstream. Our "fight or flight" response increases our body's physical capabilities, which increases our likelihood of survival in response to a threat (Encyclopædia Britannica 2023). This is how the body is programmed to respond to stressful situations, regardless of the nature of the threat; the "fight or flight" response is also triggered by non-lethal situations, for example, during public presentations (Fink 2010). Our bodies will exhibit an almost identical physiological reaction to public speaking as it would to being attacked by a wild animal. The human brain, despite being one of the smartest and most complex biological organs ever to evolve, will employ a multisystemic energy-exhaustive survival response to a mere babble in front of a small audience. To the body's credit, this stress system can be tweaked. Greater and lesser responses can be emitted according to the perceived threat level. Despite this, the stress response has proven to be increasingly maladaptive over time; stress negatively affects one's physical wellbeing in a variety of ways (McEwen 2008) (Segerstrom 2012). It might be analogous to sending militias after tax cheats; sending an armed force is a waste of resources, whether you send a large army or a small one. This is not the only example of redundancy in the human body, but if the brain did not develop separate systems in regards to one of the most taxing processes directly

associated with our survival, it would make sense that this redundancy would remain present for lower priority items, such as the secondary processing of stimuli in question. In other words, it's overwhelmingly likely that the brain utilizes the same mechanisms in forming attitudes about objects and concepts as it does with forming attitudes about people, given the lack of discrimination the brain has towards more evolutionarily impactful processes.

One then might consider how they ought to go about developing bonds and attachments, both with people and objects, within the scope of this framework. If emotion is just reinforcement of optimal evolutionary behavior, does that devalue the relationships we develop with people and communities? Similarly, if we implicitly develop similar emotional attachments with objects and concepts as we do with people, are we obligated to extend the same privileges? Are some, if any, objects and concepts deserving of respect in the same way that people are? In order to consider these questions, we must first highlight the similarities and differences between the different entities. Although the brain will develop relationships with all entities in a similar manner, there are plenty of nuances to how these relationships will be built differently depending on the nature of the entity. The complexity of these relationships will increase, going from objects, to people, and finally with concepts.

As a brief note, this framework will reject the notion of a soul that exists outside of grounded physical means. Any consideration of one's soul would be a concept of consciousness that arises from other attitudes concerning the self and one's numerous relationships to other entities. In other words, a "soul" under this framework would be defined as a conglomerate of all attitudes an entity holds, and the entity in question must possess at least one attitude towards one's own experience. Most animals would possess a "soul" or would be considered "consciousness," since most express an aversion to stress in some manner. (This expression

might not be readily apparent, such as organisms like insects or mollusks.) Most, if not all, objects would not possess a "soul," given that objects do not develop attitudes towards their own experience. There is an argument to be made that artificial intelligence could be considered as conscious under this definition. In short, most animals could be considered persons, and it is indeterminate if any objects could be considered persons. The discussion of which organisms and entities ought to be considered as having a consciousness lies beyond the scope of this paper.

B: Functionality and Emotion: Objects

Earlier I described "experiences" as being composed of both "what we do" and "how we feel about it." We can roughly summarize these as being the "functional" and "emotional" components of a relationship, respectively. These components are most clearly illustrated in the case of simple tools. Consider a mallet. Its function might be to hammer nails into boards. My emotional response might be a mild pleasure that the planks remain in place.

The degree to which these two components express themselves lies on a spectrum. The function of a hammer to nail a multitude of boards might eventually build a house. Temporarily setting aside that this would be a separate relationship with a "house object," the corresponding emotional response I will have to owning an entire house will (presumably) far outweigh the mere pleasure of a single stable plank. There is a clear distinction that can be drawn between something being "mildly functional" versus "greatly functional," and everything in-between. The same would be true for the emotional component.

It is also important to note that both these components are still attitudes/perceptions formed within the brain. The perceived functional component of a relationship might not actually reflect what it does, and the perceived emotional component of a relationship might not actually reflect the reason why we feel a certain way. A technologically-challenged individual might

assign low functionality to an “uncooperative” computer that won’t connect to Wi-Fi, making the assumption that the device itself is causing the issue. However, the actual dysfunction might come from signal interference or a bad Wi-Fi router. A person might assign low emotional value towards a rose for being an ugly flower, but the actual distaste might stem from a myriad of other causes. They might have a fear of being scratched or pierced by the thorny stems of a rose. They might dislike watching the flowers wilt as they sit. They might feel apprehensive of the extra responsibility of having to semi-regularly change the water in the vase. In short, the concept of “functionality” and functional components are, in and of themselves, concepts the brain forms. The same applies to emotional components.

Additionally, the relationships we develop are specific to each person. What might be considered useful and pleasing to one person might be dysfunctional and abhorrent to another. In the case of the mallet, one might consider its function to harm others. The functional component of a mallet might come from using it as a weapon. The emotional component might be a feeling of safety in serving as a deterrent against potential attackers. It might also be a feeling of joy in the minds of particularly devious or bloodthirsty individuals who wish to inflict harm upon others unprompted. Consider the case of a pencil. Its function might be to make chicken scratch on paper, a very low functional component. For some, its functionality might extend to writing long letters to unresponsive recipients, a high functional component, with a corresponding low emotional component from a lack of a response, or alternatively, a high emotional component having written a New York Times Bestseller. For another, its functionality might extend to artistic drawings, scientific diagrams, sketching figures, etc., each with its own corresponding emotional component depending on the circumstances. The way I use cotton swabs to meticulously spread thermal paste on delicate computer components will be a vastly different

experience than those who barbarically utilize cotton swabs to tease wax out of their ear canals (which, medically speaking, one should not attempt, despite its popular use).

B: Functionality and Emotion: People

To reiterate, **all** relationships have functional and emotional components.

These components are less clearly illustrated in the cases involving entities other than objects, especially those involving people. We typically don't like to define people by their functional components. There is an intuition that we ought to avoid "using" someone. However, in many cases, we can and do acceptably "utilize" people as resources, even if we're not actively aware of it. There are many examples of this phenomenon, and I will make the argument, there is a moral imperative to be aware of it. Being unaware or unwilling to acknowledge the functional component invariably leads to conflict.

We'll begin with a simple example: dining out at a restaurant on vacation. We rely upon a waiter or waitress to take our orders, we rely upon the cooks in the kitchen to prepare the food, and we expect members of custodial staff to keep the establishment clean. There is a relationship we share with these people, even if we never end up meeting them face to face. These relationships are almost exclusively defined by their functional components. We (presumably) experience very little emotional attachment to people that we've likely never met and will likely never meet again. The emotional component might be a pleasure or distaste towards the service worker's demeanor, or an indifference towards them in the greater context of one's dining experience. Service workers are paid for their functional component by employers, and they are valued by customers for their functional component in carrying out their duties. The relationship

we have to service workers might be assumed to be a combination of high functionality with low emotional value. (There is certainly further discussion to be had about the undervaluing of service workers' emotional labor, but for the sake of this example, we will assume the relationship is primarily functional.)

Another common example might be most friendships. There is often a high emotional component associated with friendships. We enjoy having fun, spending time together, and genuinely caring for another individual, but we often overlook or become uneasy with the functional component of these relationships. One might often ask their friend for favors. The occasional request is barely noticed, but asking too often leads one to question whether their functional component is more highly valued than their emotional component. There's also the question of whether having fun with friends serves a functional value, in that it maintains our sanity and helps us avoid feelings of loneliness. One might argue the functional component and emotional components are one and the same in these cases, that is, we have friends not because we care about the other person, but because we like to feel good, and friendships that allow us to feel good selfishly improve our quality of life. My response to this argument would be that friendships are not immutable. Friendships often change and develop over time. I would argue, most friendships start out as being primarily functional, and as time moves forward, the functional bond gradually adopts more emotional qualities. Acquaintances might start out as mandatory collaborators for a project, but through the process of working towards a common goal, deeper emotional bonds are formed. Friendships with high functionality and low emotional value are not built to last; either they die out, or they improve. Those considerations aside, the relationship we have with friends might be assumed to be a combination of low functionality

with high emotional value. While friends can be useful and supportive, we typically don't mandatorily require things of those we trust beyond our traditional work/life responsibilities.

Parallel to friendships are the relationships we have with coworkers. These relationships tend to be extremely variable. We might ask someone to pick up our shift upon unforeseen circumstances. There is a functional component to having someone fill in for the work that needs to be done, and an emotional component that someone was willing to be inconvenienced due to our circumstances. There are coworkers we like less than others. We might assume our relationships with those coworkers to be primarily valued for the functional component. One might hold the attitude that "They're just somebody I work with." Contrast that with the coworkers we like working with, the ones that we'll spend time outside of work with. We might assume our relationships with those coworkers to be primarily valued for the emotional component, regardless of their functional component in working together. One might hold the attitude that "They can be distracting, but they're super fun to work with!"

A more complex example might be the relationship a person has with one's parents. One's family and socioeconomic background is the greatest source of inequity (Conger 2010). Although we typically focus on the emotional component of family or parental relationships, our culture often shies away from discussing the nuances of the immense functional role they play in its entirety. Our culture praises parents who can afford to be present for their child, often irrespectively of the child's needs. While childhood neglect is a valid and prevalent concern, "helicopter parenting" has also become an increasingly relevant concern (Schiffrin 2017) (LeMoyne 2011), even beyond the traditional K-12 environment (Schiffrin 2014). On the opposite end of the spectrum, our culture also seems to relieve parents of their obligations once they graduate high school and become of age. Young adults perceive there are strong

expectations of self-sufficiency (Kolkhorst 2010). This is despite the fact that college students often still need and greatly benefit from parental support during their time in college (Tan 2020). In the case of a healthy household, these relationships are highly valued for both their functional component and their emotional component. In the case of abusive households, or households in general where there is tension between a parent and a child, the emotional component is valued very little, but the functional component is required to be high. Parents are responsible for raising their children, and children mostly depend on parents to support them, at minimum, financially. Unlike with friends and coworkers, where one might, with relative ease, choose to spend less time and attention with people they don't care for, there is a strong external (and arguably internal) pressure for parents and children to maintain or improve their relationship, despite their incompatibilities. One might argue that as a parent, cohabiting with and raising a child is essentially committing to taking care of a stranger. One might ponder, if they were to meet their parents without the context of having been raised by them, how would they interact? The large difference in age, experience, and cohort dynamics would presumably make it more difficult to connect emotionally. There might be an argument that an additional responsibility parents have is to teach children how to interact with people beyond their own age. Taking all these considerations into account, from the perspective of a parent, the child will likely (and ought to) serve very low functional purpose, but have a high emotional component. Conversely, from the perspective of a child, the parent will serve a very high functional purpose, and have a varying emotional component depending on the overall compatibility and experience the child has with the parent.

B: **Functionality and Emotion: Concepts**

Lastly, we might consider the relationships we form with concepts. These concepts are often composites of several stimuli that take on unique properties, distinct from its composite parts, and usually involve some sort of repeated behavior. For example, let us consider baseball (or any sport) as a concept. We might consider our relationships with balls, bats, and fields. Each relationship has its own corresponding emotional and functional components, but we would not consider the sport of baseball to be a mere addition of their functional and emotional components. Baseball, as a concept, has a lot more flexibility in being defined from the perspective of others than people or objects do. For some, a love of baseball might come from playing the sport themselves. A love of baseball can come from the competition aspect of following specific players and teams, similar to betting on fantasy football. A love of baseball might arise from the entertainment aspects, the roaring crowds, packed stadiums, blinding floodlights, and greasy chili dogs. Each conception has slight differences, more so than how one might perceive people and objects, with unique corresponding emotional and functional components.

Another example might be certain franchises. Unlike baseball, which centers around a certain activity, enthusiastic fans might hold more investment in the setting itself. The most accessible franchises that readily come to mind might be Star Wars, Star Trek, or Lord of the Rings. Similarly to baseball, these franchises have extremely variable definitions. For some, Live Action Roleplay (or LARPing) could be a primary part of the experience. Attending conventions might be a more significant interaction with the franchise for others. Some might forgo the larger crowds altogether, and instead take pride in collecting memorabilia. Another experience might involve primarily engaging with a fanfiction writing community. All of these are equally valid

experiences with a franchise, and often, the experience with a franchise is a composite of several items. Although I've listed the most involved activities, an engagement with the franchise could be as simple as buying a t-shirt and watching the corresponding film series.

More abstractly, we can also have relationships with behaviors. These can be healthy and unhealthy relationships, regardless of the activity, although some behaviors will inherently lean one way more than the other. One might consider having a well-developed relationship with exercise to be healthy, however, I would argue there are many cases where this might not be true. The most destructive example might be professional athletes who often continue to train, despite the immense strain on their bodies that leads to physical injury, multiple surgeries, and potential long-term disability. Less dramatically, an unhealthy relationship with exercise might simply be a lack of engagement with it. I may enjoy running and its health benefits, but if I never run, it is a relationship that I neglect. To run only because I value the health benefits would be putting the emphasis on the functional component. To run because I value it as a meditative practice and because it makes me feel good would be putting the emphasis on the emotional component.

Another example concerns addiction. Addicts are often presumed to have unhealthy relationships with various substances. Broadly speaking, addiction might be defined as a repeated behavior that one performs at least partially against the will of the afflicted individual. One might jokingly posit that sleep is an addiction, in that the urge to sleep is involuntary for most, and that it is done almost literally every single day, without fail. However, this might not be entirely in jest. One might argue that sleep isn't an addiction, because it is "normal" and physiologically required for our holistic health and wellbeing. However, what is "normal" and "abnormal" varies greatly from person to person. While 7-8 hours per night is the average amount of sleep a typical person might be genetically predisposed towards, the amount of sleep a

person needs changes over the course of one's lifetime. As one's age increases, one's natural desire and necessity for sleep decreases (Li 2022). Additionally, some people are naturally predisposed to need less sleep (5-6 hours per night) , and some are predisposed to require more (9-10 hours per night) (Chaput 2018). One would not immediately claim a person to be depressed, simply because they sleep 9-10 hours a night consistently. If we were given the choice to sleep less, without incurring a health cost, would we choose to sleep less? My intuition would be that most people would like to have more time in their day. College students and workaholics already choose to sleep less, despite the widely acknowledged cost it has to our health and wellbeing. The relationship one has with sleep does indeed have functional and emotional components, as the boundaries of necessity and preference are pushed. As someone who struggles with insomnia, I find myself preoccupied primarily with the functional components of sleep. I can't function well without sleep, so I must schedule out time for it. Falling asleep is often an ordeal, so I tend to do it less. If it was easy to do, I would do it more, and I would likely enjoy it more. In short, there are two unique relationships in this example. The relationship one has with sleep is nuanced, as is the relationship one can have with addiction.

Continuing with the example of addiction, alcoholism is a serious and chronic condition that has devastating effects on one's long-term health. However, alcohol might also be viewed charitably as a coping mechanism to avoid worse forms of self-harm, such as suicide. Alcohol addiction tends to increase as income level decreases (Pence 2021). Given the current trend of increasing wealth disparity in the United States, one might argue that turning to drinking is a rational response to stress, albeit, it is not the healthiest coping mechanism. There are a wide variety of cognitions one might hold about the functional and emotional components of alcohol addictions. The commonly accepted sentiment would be that alcohol addiction has low

functionality and low emotional value, given the detrimental long term effects excessive alcohol consumption has on one's health and the variable effects it can have on one's mood. However, one might consider it to have high functionality. Based off of a 2018 study, one out of six people in the United States are functional alcoholics, defined as people who regularly consume more than 10 drinks a week, binge drink (7 or more drinks in one evening) at least one day a week, and do not experience difficulties with their day to day responsibilities because of their alcohol consumption (Pence 2021). Removing alcohol could be very disruptive to a stable routine. Many consider alcohol to have high emotional value. For those who don't have access to mental health treatments, alcohol addiction might be their only effective form of treatment that addresses the severity of their symptoms. Addiction, not just to alcohol, is notoriously difficult to treat, because its solution often involves making changes to one's lifestyle. Rarely is it ever "solved" or "cured" in its entirety; it is a relationship that needs to be maintained, that is often contingent on many other circumstances within one's life.

Needless to say, relationships with concepts are incredibly complex and difficult to define across multiple people. It is difficult, and perhaps pointless, to try and separate and assign with perfect accuracy functional and emotional components to these concepts. I would argue that there is still a strong value to conceptualizing relationships in this way. Although we cannot do it perfectly, making estimations of how we value these emotional and functional components can be an effective framework for gaining a deeper understanding of ourselves and how we interact with the world around us.

B: Intra-entity Interactions

With the fundamentals of functional and emotional components having been laid out, I would like to explore the role of the individual in holding a relationship. The discussion thus far

has broadly described the reactions we have with entities, but the nature of these relationships cannot be exclusively described by functional and emotional components alone.

I would first like to broadly consider how relationships between entities shift the nature of both entities involved. The least interesting relationship between entities would be the object to object relation. Object to object relationships concern the fields of mathematics, physics, chemistry, and biology. Atoms smash into one another and become new elements. Mix your chopped lettuce object with your favorite dressing object together, and you get a new salad object. Relationships involving people and concepts are much more interesting. We, as people, are ourselves entities. Those with consciousness have the conception of a self, and the conception of the self can change depending on the entities we interact with. We might adjust the conception we have of ourselves based on how others perceive us. When we do this, we essentially integrate a portion of someone else into ourselves. This can be both good and bad, and learning to discriminate between which portions of others are worth integrating from which people is a fundamental part of building up one's self image. The person to person relationship dynamic is studied further in the various fields of humanities and social sciences. Concept to concept relationships are the most complex and difficult to conceptualize. Unlike objects, which are physically grounded, or people, who have conscious minds, concepts might best be considered as a collective consciousness that arises from multiple minds conceiving of the same or similar thing. I propose that it is best conceptualized as a grand system of analogies that attempt to provide structure to otherwise inherently fluid or flexible ideas. For example, we might compare the concept of "games" to the concept of "work." We might assume the raw concept of "games" to be "fun," and the raw concept of "work" to be "necessary tasks." When both of these raw concepts are compared against one another, each changes to be more like the

other. Many careers emphasize the importance of "having fun at work," in which necessary tasks should not be seen as a mere salary or functions of survival. The more personally invested one is in their job, the more likely the product or service is to be of higher quality. However, there is still an emphasis where "work" remains distinct from "games", in that it should not be taken lightly when it comes to providing a quality service. There is still more of a directed purpose or task that is attempting to be completed. In the case of games, there is often a need for structure and rules within "having fun." Many games are designed to where the "purpose" is to find a winner. If there was no directed purpose, carefree fun would be less meaningful. However, there is still an emphasis where "games" remains distinct from "work," in that the directed purpose of finding a winner is not really what is important. The intention of playing games is primarily to have an enjoyable experience.

Having briefly gone over intra-entity interactions, I would like to move on to discuss the interactions between different entities. There is extensive discussion to be had looking at how inter-entity relationships play out. The interaction I will primarily be discussing is the relationship between people and objects, which I will then be comparing to interpersonal relationships.

C: Defining Instrumentality

In comparing the relationship between objects and people, it is important to first establish the differences between the two. Objects do not function as observers; they are unable to make judgements about humans, and by conventional standards (excluding beliefs like monism which suggest every entity has a consciousness) are unconcerned with the functional and emotional components of their relationships with other entities. In contrast, people are capable of engaging with evaluating functional and emotional components of relationships, and will thus, be the

exclusive observer of this relationship. Although they are the exclusive observer, this does not mean that it becomes a one-sided relationship. Objects can and do affect the way the observer perceives and interacts with the world. We might assume this synthesis of objects and people to be somewhere roughly in between object-object relationships and interpersonal relationships. There is a synthesis between the two entities that isn't as materially straightforward as is the case with the example of atom collisions, but isn't as ambiguous and uncertain as is the case between people.

People are commonly observed to integrate objects into their concept of self. This is an idea that has been echoed across several different domains. East Asian Buddhism discusses the concept of Indra's net, which describes each individual entity's existence as being a "node in the web," and each node is a cumulative reflection of its surrounding nodes (Loy 1993). In psychology and neurobiology, there exists the concept of the "extended self," in which objects become semi-transparent when used or owned (Ahuvia 2005). We don't experience the object itself. Instead, we experience things *through* the object. There are many common examples of this phenomenon. The most accessible example might be driving a car. Experienced drivers will describe the importance of "getting a feel for the car." With enough time and experience, one can get a feel for the bumps in the road, whether they will fit into a parking space, or sense when one's brake is "touchy." French philosopher Maurice Merleau-Ponty describes a thought experiment in which a gigantic feather is tucked into one's hat. The feather becomes a part of the person's self-perception, in that they will crouch under door frames so as not to damage the feather (2004). In the realm of neurobiology, an experiment was performed in which Japanese monkeys were tasked with using rakes to pull food closer to themselves. When the researchers recorded their brains, they found the neurons that fired were the same neurons associated with

the tips of their associated limbs. The researchers concluded that the brain considered the tool to be a literal extension of the body, separate from brain regions that might have suggested an engagement in problem solving or tool-use behaviors (Maravita 2004).

One might consider an instrument as being a conduit of expression, a tool that allows one to express themselves through a certain lens. Another French philosopher, Bruno Latour, suggests that when we use an object, it "lends" us its way of seeing. It remains distinct from us, but we become a new hybrid, "compound entity." Along with its strengths, we often also adapt an instrument's limitations (2012). One limitation involves the manner in which we can express ourselves. We might be capable of selecting which notes to play, in what arrangement, and for what length of time, but we can't choose the sound or timbre of the instrument itself. The kind of instrument can also influence the manner in which we can play the notes. You couldn't use vibrato, a string technique, on a piano (despite it technically being a stringed instrument), but you also couldn't play multiple notes simultaneously on a trumpet. Another limitation involves the perspective in which we perceive our environment beyond the instrument. To quote psychologist Abraham Maslow, "if the only tool you have is a hammer, you tend to treat everything as if it were a nail" (1966). When an object lends us its way of thinking, we adopt its blind spots as well. We will often unknowingly limit our own perspective and effectiveness. The presence of a lock and corresponding key implies that there's something we ought to keep hidden or protected from others; locks derive value from a distrust towards others. They implicitly encourage a wariness towards others. A more serious example might be the development of weapons as instruments of violence. The existence of guns, grenades, and nukes makes the assumption that there are beings deserving of being threatened, maimed, or killed. One ought to consider if constructing weapons of mass destruction is ever justified, given their use has only one likely

outcome. It would make better sense to construct instruments which encourage diplomacy, or at the very least, do not enable violence. There is further discourse to be had about teleology and how instruments ought to be designed, given how greatly it can influence how people behave. For the purposes of this discussion, the important point is that objects have a way of subtly using us. Although we may believe ourselves to be masters over our subservient inanimate tools, the relationship is rarely ever one-sided, and they often have a great deal of influence over our perceptions and actions.

As a brief note, smartphones and the internet have become increasingly dangerous and pertinent examples of this phenomenon. Society has implicitly and almost ubiquitously shifted its attitudes towards concepts like privacy (Fuchs 2017) , our attention spans (Kies 2018), and accessibility to misinformation (Scheufele 2019). One might argue, as I have in previous research, that the relatively unregulated accessibility of smartphones is a direct causal factor to several of the problems our newest generations face.

C: Human Instrumentality

Having defined the instrumental relationship as the relationship between an object and a person, I would like to propose that **the relationship between objects and people** is not dissimilar to **interpersonal relationships primarily valued for their functional component**. In other words, interpersonal relationships with primarily functional components are closer to being an instrumental relationship than our preconception of a traditional interpersonal relationship. As aforementioned, there might be a negative reaction to the conception that we "use" people. We ought to behave respectfully towards persons as persons, and we ought to acknowledge objects as being objects. However, we've also established that there are many acceptable relationships that are valued for its functional component. It is almost inconceivable

that any relationship would be held solely for its emotional component. Additionally, instrumental relationships are not without its emotional component. All relationships have functional and emotional components. To think of a relationship to a person as being similar to a relationship with an object is not inherently disrespectful towards the person. I would like to argue that:

1. We ought to rethink of the way we perceive instrumental relationships, and
2. Accurately perceiving and acknowledging instrumental relationships for what they are will improve the quality of those relationships

I will be presenting a series of considerations that will hopefully, at the very least, make my claims appear contentious as opposed to being rejected outright.

C: Human Limitations

These considerations primarily support my first claim. There exists a psychological proclivity towards the conservation of energy. Most, if not all, living creatures are primed to expend the least amount of effort possible for the greatest amount of benefit, either for them, or for their family/species group. For humans, this concept extends to the mind as well. We like to "work smarter, not harder." It's the reason why we develop stereotypes, make assumptions, utilize heuristics, and pass down adages. These snap judgments aren't always correct, nor are they without harm, but it doesn't change the fact that we unavoidably engage with these judgments, nor does it change *why* we engage with them. Psychologist Daniel Kahneman describes the brain as having two modes. "System one" is fast, instinctive, and emotional, whereas "system two" is slower, more deliberative, and logical (2013). This two tiered system arises as a result of the brain trying to be as efficient as possible. To spend ten hours deciding what to eat for breakfast is a waste of time and energy. To spend less than a minute deciding

whether or not to move to a new continent would be ludicrous and irresponsible. This concept of energy conservation applies to our relationships as well. According to biological anthropologist and evolutionary psychologist Robin Dunbar, the average human can only maintain about 150 meaningful interpersonal relationships at a time (1998). Dunbar's number takes into account not only the amount of time one might have to spend with others, but the total amount of "emotional energy" one might have to expend as well. Given that we have an upper limit of how many interpersonal relationships we can effectively maintain, it would make sense that we would need to make some adjustments in how we act towards others depending on the context. Most people couldn't reasonably become invested in the life story of every cashier, flight attendant, bank teller, or security guard they interact with. Nor would those people reasonably want to reciprocate to that extent, given the context of the work they are trying to perform. Some relationships will naturally and justifiably be more superficial and impersonal than others. The lack of an emotional component does not bar the relationship from having a functional component. Given that developing an emotional component is infeasible, the best thing one can do to improve a relationship is to invest within the functional component, the component that has much more immediate and tangible effects. Aristotle proposed a hierarchical structure of relationships, where relationships with primarily functional components were considered to be the "lowest tier" or "least valuable" relationship one could have, and that one should avoid forming meaningless relationships (Crisp 2014). I think it would be more appropriate to describe these functional relationships as amenities in a car. Given that we can only have so many "important" parts in a car, such as those involved with the engine and steering, we can still look to add "lesser" components, such as windows, air conditioning, and radio. It would be disastrous if we tried to remove the cupholders in favor of adding additional steering wheels.

C: The Emotional Component of Instrumental Relationships

The next set of considerations supports both my first and second claims. Earlier, I primarily defined instrumentality by utilizing examples of tool objects. However, there are many instrumental relationships with little to no functional component. The most readily available example would be objects of sentimental attachment. The stereotypical stuffed animal of one's childhood might have a functional component in triggering a specific emotion or mood, but I would attribute this as being part of the emotional component of the relationship. Another example might be disposable tools, with which one has very little time and attachment to. "Disposable" here primarily refers to tools that we wouldn't utilize for very long, not so much how often it might be discarded or how well it might decompose. In this context, a writing utensil borrowed from a friend would be considered disposable, the same way in which a plastic utensil in a cafeteria might be considered disposable. One might consider that the emotional component of an instrumental relationship develops the same way as an interpersonal one; the more time we spend with an entity, the more meaning it often has to us, often despite the fact there is nothing inherently special about the entity itself. This transitions well into the next point, which is that instrumental relationships can and do have significant emotional components. Returning to the temporal aspect of relationships, there are several examples to consider. We often develop strong emotional attachments to objects. If one might consider a sentimental attachment to a stuffed animal to be too "childish" from them, one might consider the emotional attachments people develop to family heirlooms. These objects similarly hold no functional purpose; their value is derived simply by owning the object, perhaps occasionally being shown off within a display case. Plenty of people become attached to items they are in contact with

daily, useful or not. I love my earbuds that let me listen to music on a daily basis, but I also love the two previous sets of earbuds I don't use anymore. I love my flimsy paper folder that I store most of my school materials in. That paper folder has been with me for over 6 years (as of writing this), and the only thing holding the two well-worn sides together are a couple of well-placed strips of duct tape. By all means, a new folder would hold papers much more effectively, but I don't want to get a new folder, and I especially don't want to throw out the old one. I love old calendars that remind me of previous schedules I've had, even though it serves no functional purpose in helping me plan for the future whose date has already passed. Surely everyone must have examples of trinkets or keepsakes that we continue to possess despite serving only aesthetic pleasure, or having long outlived its usefulness.

Having established that instrumental relationships have emotional components, we can look at how this might be leveraged to improve relationships. Many cultures throughout history recognized the value of emotional investment in our instrumental relationships. "Klabautermann" in German and "Funadama" in Japanese referred to a "guardian of the ship" or a "ship's spirit." The ship was seen not only as a mere vessel, but an entity with which one had obligations to protect and take care of. To neglect the maintenance of one's sea vessel was to willfully ignore an injured crewmember, which was viewed as immoral and frowned upon by others (Buss 1971) (Yoshida 1974). As a result, not only were these ships incredibly well-maintained, but their navies were considered to be the strongest of their respective times. Japanese samurai believed that their swords had moral characteristics and ought to be respected and honored as people were. A qualified swordsmith needed to be capable not only of metallurgic manipulation, but of endowing a spirit into the blade which would become its soul (Museum of Fine Arts Bulletin 1906). Strict rules governed how katanas were carried, wielded,

and trained with. Samurai were required to wear the sheath on their left side, so that when two samurai passed one another, the sheaths would not bump into each other. Samurai were required to use techniques to draw their blade in such a way that didn't damage the sharp edge. Drawing a blade was always to be taken seriously; to draw a blade without purpose was to inconvenience a powerful spirit for no reason, thereby disrespecting it. Stepping over a katana, sheathed or unsheathed, or using it as a cane, was considered to be immensely inappropriate, and engaging in taboo behavior could result in severe corporal punishment (Kawachi 2006). As was the case with the ships, Japanese samurai were considered to be the best swordsmen of their time, in addition to having the sword arts persist culturally despite its obsolescence in field combat. Developing the emotional components of an instrumental relationship will lead to a growth in the corresponding craft. We might consider other examples as well. Chefs who take care to sharpen their knives, for the knives themselves, find themselves to be better cooks. Authors who care for their beloved writing utensils find themselves to be better writers. Educators who care for their classrooms find themselves to be better teachers. Better chefs, writers, and teachers all put out significant goods into the world; we ought then to advocate they develop a care towards their instruments.

We ought to apply this attitude more often towards our environment with respect to climate change. Aldo Leopold championed the idea of "the land ethic," which involved taking care of nature because it is good in and of itself (2007). The instrumental component of our relationship with nature has not been enough to convince humans to take better care of the environment. Even knowing that our current consumption and degradation of the environment is unsustainable, and that we will eventually lose many of the modern day luxuries we enjoy, we have been ineffective as a species in changing our behavior. We would be more effective in

addressing environmental concerns if we were to develop a deeper compassion towards the environment itself.

We ought to apply this attitude more often towards “human instruments.” Amazon is notoriously bad at treating their employees well (Kantor 2015) (Mulugeta 2022). Employers and businesses who care for their employees would find themselves to be better managers. Better businesses not only tend to make more profit, but even in cases where less revenue might be generated, providing benefits to otherwise struggling blue-collar workers would still be considered to be a “better business” by most. Educators are criminally underpaid and overutilized (Tran 2022) (Allitt 2022). Public officials and politicians that support their educators would find themselves to be better civil servants. People who hold public offices will not be able to develop a deep interpersonal relationship with every single educator they make policy for, much less meet every educator. Many politicians’ images depend on the perception that they have deeper ties to their community than they actually have. Being honest about the nature of the instrumental relationships they have with the people in their community would allow them to more effectively cater to their needs. If we engaged in a political discourse that summarized people’s views more accurately with statistics, rather than heuristically attacking members of political parties, we would likely have much more productive legislative proceedings, and at the very least, more civil discussions. In other words, while a majority views political discourse as being very emotionally charged and interpersonally complex, we ought to take an impersonal instrumental approach. If voters were to view the relationships with their political leaders as being more instrumental, discussion would likely improve in the absence of non-productive emotional/irrationally opinionated squabble.

Conclusion

There is an undeniably necessity for interpersonal relationships. We would not function as a society if we refused to rely on others. Many careers directly depend on having positive relationships with others in order to function. From this need to cooperate, there arises a pressure to be dishonest and disingenuous with others, either misconstruing one's character, or being untruthful in one's attitudes towards another person. The need to bolster the functional component of a relationship often means lying to others or oneself about the emotional component of that relationship. The reason why we feel the need to do this comes from an intuition that one ought not to treat people as mere instruments. There is an idea that being respectful towards another person might necessitate acting in such a way that doesn't accurately reflect the actual nature of their relationship. I disagree; to truly be respectful of others is to be honest and transparent about the functional and emotional components of a relationship. We can, and should, develop a respect towards inanimate objects. We can have emotional components in instrumental relationships. Given our limitations in holding effective relationships, and the problems that arise from being disingenuous in relationships in the pursuit of functional benefits, we should acknowledge the instrumental relationships we have with others for what they are.

[Word Count: 8908]

Capstone Reflection

This is currently the longest writing project I've ever undertaken. Having arrived at the end of it all, I can solidly conclude that I struggle with writing longer works. I might attribute this primarily to a lack of focus. There are always too many ideas I want to fit into what I write, and it's difficult for me to maintain a central focus. It's difficult for me to clear away thoughts that don't directly relate to what I'm doing, and I find this to translate over to my writing. I had to completely scrap two previous versions of this paper, because both devolved into a stream of consciousness that made it difficult to pull pieces from.

Selecting a topic was a difficult process. There was an element of choice paralysis from having such a wide variety of topics that interested me. There was also a desire to select the perfect topic, since it would be something I would be investing a lot of effort into. I was worried that selecting anything less than the best option would result in wasted effort. I've come to embrace that not every project I undertake or choice I make has to be optimized. Even if I don't pick the best option, I will still likely be choosing a "great" topic from many great options. A piece of advice I would give to future Honors students struggling to select a topic would be to act as if you will have opportunities to choose more topics in the future. As previous Honors students advised me to do, I would also advise students to pick a topic they genuinely care about. It would have been impossible for me to finish this project if I hadn't had a personal engagement with the topic.

After having selected a topic, I went into the capstone process with the belief it would be a high hurdle to clear. As I wrote and read, I found it to be less daunting. Towards the end, I once again found it to be difficult. What I discovered was that the difficulty centered around being able to convey my ideas to others. I feel as though I was able to enjoy the process when it was just me learning for my own sake. Having the freedom to explore and research at my own pace was the best part of the capstone experience. Reading about anything and everything that piqued my interest was the fun part. Condensing it down, deciding what pieces were relevant to an idea that I wanted to convey, that was the difficult part. I think my final written product is still too broad, and if I were to redo the project, I would start by choosing the most narrow topic as possible, and gradually expanding, rather than starting broad and honing it down. However, had I gone into the Capstone with too specific of a goal of what I wanted to learn, I would not have been as happy with the experience. When it comes to discussing a broad topic, I'm still learning to find a balance between being comprehensive, without moving into a different topic entirely. Going through this experience was an intensive exercise in trying to find that balance.

Additionally, this Capstone experience was personally insightful beyond my academic capabilities. I found that the difficulty of writing stemmed from my anxiety, trust issues, and issues of self-worth. No matter what I wrote, it didn't feel good enough. I had difficulty beginning to write, because I wanted it to be perfect on a first draft. I scrapped drafts because I

perceived it was bad, even though the independent feedback I had received praised it as being well-written alongside their constructive criticisms. I was previously under the impression I was very good at taking criticism in other domains, but it seems I have found a blind spot for this in my writing. I really don't like being critiqued on my writing, and I gradually learned to work through some of the discomfort that came with summarizing and applying feedback.

Alongside this point, I would have liked to utilize my mentors more. I was scared to have others read my work and perceive me as lesser, so I primarily looked for feedback from people I trusted more closely, but I don't think the feedback they gave was as effective as it would have been from my mentor. I was trying to deliver a "perfect" draft, which defeats the purpose of looking for feedback. This might have been a factor largely outside of my control; I've gradually been learning how to better manage my anxiety, but being aware of how my anxiety has been affecting me is still generally a new concept to me.

I was at least happy to have chosen a topic that lies a bit outside my usual academic domain. I still got to use my general knowledge of biology, but I don't feel as though I was tied down exclusively to what I could reasonably prove, as most STEM research does. I was also not as tied down to the dry language that comes with a meta-analysis paper. I have found that I want to incorporate more creative and expressive elements into my work. I didn't recognize that it was something I desired prior to this project.

I have learned that I am more effective at creating smaller high quality projects than large ones over time. I essentially tried to do this when I split my paper into three parts. I conceptualized it as three separate essays. Compartmentalizing in that way helped me to maintain a better focus throughout, although as aforementioned, the final written product is likely still too broad.

Overall, I think this Capstone project has helped me to evaluate my own strengths and weaknesses when it comes to communicating ideas. I am more capable when it comes to understanding ideas from others, but currently struggle with conveying it to others in writing. My current goal is to pursue a career in education, where conveying concepts is paramount. This project pushed me, and I would like to continue to expand on the skills I learned from this project, especially when it comes to being involved with a wider community. I was frequently surprised when people I talked to expressed interest in reading my Capstone. I would like to be more willing to share my thoughts with others outside my usual circles.

[Word Count: 1075]

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Author Biography

Nathaniel Bee majored in human biology with a minor in psychology. He has enjoyed exploring a variety of communities and activities at Utah State University, having competed on both USU's Overwatch esports team and ethics bowl team, and having served in the Residence Hall Association and National Residence Hall Honorary. Nathaniel also presented research at USU's fall student research symposium in his freshman and senior years. Nathaniel was able to experience a wide array of jobs on campus, working as a resident assistant, a summer assistant, an undergraduate teaching fellow, and a teaching assistant. He has found working with students to be a particular highlight, and Nathaniel plans to pursue career options in public education.