

THE PHENOMENON OF SUBSTITUTION AND ASPERGER'S SYNDROME

THE PHENOMENON OF SUBSTITUTION AND ASPERGER'S SYNDROME
A PHENOMENOLOGICAL ANALYSIS

By

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ABSTRACT

This thesis suggests that the alliance between contemporary Psychology and Merleau-Ponty's Phenomenology provides a more complete analysis of the embodied experience of persons with Asperger's Syndrome (AS). This alliance would rely upon the first person experiences of those with AS in addition to the physiological analysis and observations provided by those in Contemporary Psychology. By examining the analysis provided by contemporary psychologists within in the framework of the philosophy of Merleau-Ponty, the 'whole' of the embodied experience of persons with AS will be revealed. The analysis of Dr. Simon Baron-Cohen, one of the foremost contemporary psychologists in the field of autism is examined. I will conclude that Baron-Cohen privileges interpersonal interaction while overlooking other types of interaction by an embodied being within the phenomenal world. First person accounts written by Temple Grandin, Ph.D. and Dawn Prince-Hughes, Ph.D., both persons with AS, are relied upon for the analysis of an alliance between the two disciplines. Critical to this examination is Merleau-Ponty's Phenomenon of Substitution, the 'seat of illness', and the 'third term'. Also discussed will be issues of boundaries that serve to separate the neurotypical from those persons with AS. These boundaries serve to diminish the potential and accomplishments of those persons with AS while attempting to maintain the hierarchical supremacy of those who are neurotypical.

This Thesis Is Dedicated To:

My Father, Lt. Col. Clarence (Mike) L. Mikel – USAF (Ret.)

and

My Grandmother, Emma Matilda Dickinson

**Both of whom taught me that with hard work anything is possible.
Their life experiences continue to inspire me.**

My Husband, Rick

and

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Their love and support knows no bounds!

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ABBREVIATIONS

Below are the abbreviations of titles of Merleau-Ponty's works.

CD *The Merleau-Ponty Aesthetics Reader – Philosophy and Painting*, ed. Galen A. Johnson, trans. ed. Michael B. Smith (Evanston, IL: Northwestern University Press, 1993).

PP *Phenomenology of Perception*, trans. Colin Smith (London: Routledge and Kegan Paul, 1962).

VI *The Visible and the Invisible*, trans. Alphonso Lingis (Evanston: Northwestern University Press, 1968).

INTRODUCTION

Imagine your sensory world scrambled and unregulated, your auditory intake an incessant rock station – or worse, mere static – blasting in your ears. Imagine your kitchen light as bright as a searchlight, boring into your cornea every time you turn it on. Imagine yourself in clothes so irritating that they seem lined with metal scraping brushes. Imagine walking past a woman wearing a spritz of Chanel No. 5 that leaves you disoriented and dizzy. Imagine entering a restaurant and encountering fumes so overpowering to your eyes that you think the cook must be boiling Mace. This can be the world of sensory integration dysfunction.¹

I became interested in persons with Asperger's Syndrome (hereafter AS), a form of autism, after watching a *Sixty Minutes* segment about a little boy from India named Tito Rajarshi Mukhopadhyay. Mukhopadhyay was defying what most researchers and doctors had thought possible for a person with autism. Very eloquently, he was writing about what it was like to be trapped inside of an autistic body.² Mukhopadhyay and his mother had been brought to the United States so that scientists would have a glimpse into the autistic mind. In subsequent weeks additional segments and letters to the show appeared regarding Mukhopadhyay. These later segments featured doctors and researchers who adamantly claimed that Mukhopadhyay could be nothing but a fraud. I was struck that the scientific community would take such adamant issue with a little boy, so much so as to appear on the US National television. Little did I realize the dichotomy that existed between what researchers had theorized about persons with AS, and what the first person accounts written by those with AS conveyed about their experience of being in the

¹ Patricia Stacy, *The Boy Who Loved Windows – Opening the Heart and Mind of a Child Threatened with Autism* (Cambridge, MA: Da Capo Press, 2003) 35.

² For more information about Mukhopadhyay see his book *The Mind Tree – A Miraculous Child Breaks the Silence of Autism* New York: Arcade Publishing, Inc., 2003

phenomenal world. This thesis is a result of researching this dichotomy. From this research I have concluded that what Classical Psychology had overlooked is the embodied presence of the persons they were theorizing about. I propose that a more complete analysis occurs of the embodied experience of persons with AS by allying Merleau-Ponty's Phenomenology philosophy with Classical Psychology.

AS is a form of autism. The psychologists who were the first to write about autism were Leo Kanner, in 1943, and Hans Asperger, in 1944. The articles detailed cases histories of autistic children. These publications are thought to be the first theoretical attempts to explaining the disorder. Independent of one another, both psychologists came to the conclusion that autism was a fundamental biological disorder, present from birth.³

Kanner's paper gained notoriety, while Asperger's paper was virtually ignored. There is speculation that this was because the paper was written in German and published during World War II.⁴ Additionally, Asperger's paper appeared to be describing children that were quite different than those described by Kanner. It was later thought that Asperger's definition of autism was more encompassing, while Kanner's was more restrictive.⁵ In subsequent years the term Asperger's syndrome (AS) was used to loosely identify autistic cases that otherwise would be considered too "mild" to be diagnosed as having autism.⁶ The formal pathology identified as Asperger's Syndrome was first referenced in the Diagnostic and Statistical Manual of

³ Uta Firth, *Autism – Explaining the Enigma* (Malden, MA: Blackwell Publishing, 2003) 5.

⁴ Firth, 10.

⁵ Firth, 10.

⁶ Firth, 11.

Mental Disorders, a reference of diagnostic criteria for all known psychological pathologies, in 1994.⁷

The psychological assessment and diagnosis of AS usually occurs in later childhood or thereafter. Parents are often unaware that when their infant does not look at the person looking at them, or fails to turn around when called by name, and is unresponsive to teasing, their child could have AS. As the child grows older, the behaviour displayed causes most parents to seek professional help. The assessments of children may vary between clinicians because the knowledge of the pathology of AS greatly differs. This variance could range from being misdiagnosed to being diagnosed with AS.⁸ The problem of misdiagnoses occurs because AS is what is considered to be a borderline case of autism, and many clinicians are still unaware of the existence of AS as a pathology.⁹

Classical Psychology considers all forms of autism to be a behavioural syndrome. Classical autism is the most extreme form of autism that in most cases requires institutionalization. Because it is a behavioural syndrome, there is a 'cluster' of three abnormal behaviours that must be present for one to be diagnosed with classical autism.¹⁰ These behaviours are: "person's social relationships and development are abnormal, the person is failing to develop normal communication, and the child's interest and activities are restricted and repetitive, rather than flexible and imaginative."¹¹ The person with AS has an 'atypical' form of classical autism.

⁷ Dawn Prince-Hughes, Songs of the Gorilla Nation – My Journey Through Autism (New York: Harmony Books, 2004) 28.

⁸ Firth, 12.

⁹ Firth, 13.

¹⁰ Simon Baron-Cohen and Patrick Bolton, Autism – The Facts (Oxford: Oxford University Press, 1993) 14.

¹¹ Baron-Cohen and Bolton, 14.

Therefore, only one or two of the behaviour criteria need be present to be diagnosed with AS. In addition, some of the features of the behavioural diagnostic criteria do not necessarily appear prior to three years of age.¹²

There is no definitive cause of AS, though medical evidence suggests that biology is a factor. The various suggested biological causes include “genetic factors, viral infection, and birth or pregnancy complications.”¹³ The cause is not definitive because these ‘suggested’ biological factors are not found in every child with autism.¹⁴ Post-mortem studies of both children and adults with autism have also proved inconclusive as to the cause of autism. No abnormality has been found in post-mortem studies that are present in every case.¹⁵

Classical Psychology knows very little about the adult with AS because very few studies have followed persons into their adult years. For those who are highly functioning autistics, such as those with AS, classical psychologists speculate that a life of independence and employment are not ‘unknown’, but are unusual.¹⁶ On the contrary, though his perspective was virtually ignored, Asperger was more optimistic. Asperger noted that contrary to the process of deterioration that is frequently cited in adult psychoses, his patients showed increased adaptation and compensation for their disability. His optimistic viewpoint was in light of his belief in education and the possibility of person with AS compensating for persistent problems inherent to the pathology.¹⁷ Contemporary classical psychologists speculate that persons may show

¹² Baron-Cohen and Bolton, 16.

¹³ Baron-Cohen and Bolton, 10.

¹⁴ Baron-Cohen and Bolton, 10.

¹⁵ Baron-Cohen and Bolton, 35.

¹⁶ Baron-Cohen and Bolton, 79.

¹⁷ Firth, 16.

improvement but usually AS continues throughout their lives.¹⁸ Since no specific method of treatment has proven effective in the cure of autistic disorders, each hypothesis about treatment is a ‘shot in the dark’.¹⁹

The analysis provided by Classical Psychology is incomplete. Fifty years after Asperger wrote his paper, little is known about persons with AS. Though little is known, persons along with their potentials for being-in-the-world are categorized according to the pathology of AS based upon the findings of classical autism. Because the analysis proceeds from viewing the person from the baseline of classical autism, the perspective starts from what they should not be able to accomplish rather than what they can accomplish. This places persons with AS in the position of proving to the classical psychologist that they are able to accomplish a task or else they are a fraud. It is striking that the analysis of Classical Psychology often overlooks how the person with AS ‘feels’. Because Classical Psychology views AS as a ‘behavioural’ syndrome, little information is gathered about the embodied experience of persons with AS. This is because the analysis begins from the perspective of classical autism rather than the potential of persons with AS.

In contrast, the focus upon the lived body and the embodied experience in the phenomenal world is the strength of Merleau-Ponty’s philosophy. First and foremost, Merleau-Ponty focused upon the importance of the body’s integrated being in-the-world. To be “in the world” requires that one have ‘presence’. One cannot have presence unless one has consciousness. If one does not have consciousness, the

¹⁸ Baron-Cohen and Bolton, 12.

¹⁹ Firth, 31.

person is an object. In other words, one is an embodied conscious being that is in the phenomenal world.

The quote at the beginning of this introduction describes how the person with an AS body 'feels'. Their bodies experience the world on sensory overload. The difference between the quote at the beginning of this introduction and the analysis of the pathology of AS provided by Classical Psychology is startling. Focusing on AS solely as a behavioural syndrome misses the overwhelming impact that sensation has upon the body of persons with AS. The exclusivity of this focus often leads to a distorted or wrong interpretation of the behaviour analysed. The 'overload' affects the perceptive capabilities of persons with AS. Because phenomenology focuses upon the embodied experience, the discipline 'captures' the effects of the 'overload'. The result of allying the disciplines is the conclusion that persons with AS are 'sensory disabled'. The 'sensory disability' contributes to the behavioural issues attributed to the pathology as proposed by Classical Psychology. The analysis of behavioural issues without examination of the experienced 'sensory disabilities' results in an incomplete story of the life experience of persons with AS. The addition of the phenomenological explanation and analysis of the theories proposed by Classical Psychology points toward the impact of the sensory disability resulting in behaviour that is inherent to the pathology of AS.

It is important to note that boundaries are used within empirical science to establish a baseline or average. Unfortunately, these boundaries have been carried over into Classical Psychology where a 'norm' is established. This 'norm' delineates those who are normal from those who are not by use of hierarchical standards. In

many cases, ‘normal’ has come to be defined more by what it is not, rather than what it is. I have chosen to disregard the term ‘normal’ as the basis of comparison within this thesis. Instead I am employing the term ‘neurotypical’, which is used by persons with AS and those who study them, to refer to persons who are non-autistic.²⁰ This way, the focus remains on what the person with AS experiences, rather than on their difference from the normal. Therefore, the analysis can proceed from what AS is, rather than look at a hierarchical standard of what it is not.

This thesis is comprised of three chapters. Chapter One discusses the problems that Merleau-Ponty found inherent to the analysis of Classical Psychology. The discussion juxtaposes one of the foremost contemporary authorities in autistic research, Baron-Cohen and Merleau-Ponty. Baron-Cohen’s theories such as ‘mindblindness’ and the ‘extreme male brain’ will be discussed. Once Baron-Cohen’s position regarding persons with AS is established, I will propose a response from Merleau-Ponty that will be formulated based upon three of his philosophical works. This response will examine what Merleau-Ponty found overlooked by Classical Psychology employing the inductive method.²¹ Inherent to this response will be Merleau-Ponty’s focus upon the importance of the body, embodiment, and the ability of the body to know pre-cognitively. I will also discuss Merleau-Ponty’s interest in the disabled experience as a means to understand embodiment in the world. He was adamant that the observation of persons who are disabled does not fully explain the

²⁰ Prince-Hughes, 84.

²¹ Merleau-Ponty wrote in the middle of the 20th century, therefore some of his analysis about Psychology could be considered outdated by current methodology. While the analysis could be considered outdated, it is important to understand why he proposed this project based upon the methodology of his era. Though outdated, the analysis is applicable to contemporary Psychological methodologies because the embodied lived experience of persons with disabilities in many instances continues to be overlooked. By allying this analysis with contemporary methodologies of Psychology, a more complete story of the experience of disability is revealed.

pathology and in most cases results in incomplete analysis. By looking closely at the embodied disabled experience that we come to understand the pathology, but most importantly, the person.

Chapter Two will look at two first person accounts written by women with AS. Portions of these accounts will be examined within the context of Merleau-Ponty's phenomenology. Both authors are university professors who have successful careers. Interestingly, neither woman has the desire to be anyone other than a person with AS, because AS is part of who they are. Their first person accounts document their life experiences from childhood to the present. Their experiences within neurotypical society do not mirror each other. Rather, each woman's account stands by itself, and cannot be considered a standard for the person with AS. Both women exhibit different preferences and personalities, similar to the personality differences found in those who are neurotypical. By examining their accounts from the perspective of phenomenology, startling similarities become apparent as to how their bodies pre-cognitively 'know'. The conclusions reached by this examination will point to the benefit of allying the disciplines of Phenomenology and Classical Psychology.

Chapter Three will examine embodiment. Inherent to this discussion will be the juxtaposing of the Cartesian method and Merleau-Ponty's phenomenology. Specific to this discussion are sensation and the sensory organs. Because persons with AS are on sensory overload, their sensory perceptions are different than those of persons who are neurotypical. This sensory disability affects their embodiment because their bodies must employ different means by which to tolerate being in the

world. Interestingly, some of the ‘means’ which bodies of persons with AS employ are similar. These means are pre-cognitive, or before thought. Therefore, there is similarity of the bodies of persons with AS ‘knowing’. One ‘means’ that is similar, and almost inherent to those with AS is the avoidance of the ‘gaze’. I will discuss this avoidance from the perspective offered by Classical Psychology after which I will present the phenomenological perspective offered by both Sartre and Merleau-Ponty. This comparison points towards the problem of the mechanistic perspective of the body incorporated into theories about persons’ with AS embodied experience. From this discussion, it will be apparent that AS cannot solely be considered a behavioural syndrome, but should be additionally viewed as a sensory disability. In addition, once the pathology is viewed as a sensory disability that affects behaviour, a more complete understanding of the experience of persons with AS can begin.

Because persons with AS experience being-in-the-world with such heightened sensitivity, persons who are neurotypical can learn about their own sensory capabilities as embodied beings. Persons who are neurotypical are often desensitized to sensory perception because of the primacy given to cognitive thought processes. In essence, the ‘mind knowing’ takes precedence over the body ‘knowing’. Because of the Cartesian split of mind and body, the body has been relegated to the position of mechanism. This philosophy has been incorporated by empirical science for centuries. In this process persons who are neurotypical have been desensitized to the sensations that the body experiences prior to cognitive thought. In other words, they disregard the body ‘knowing’. Persons with AS cannot exist as embodied beings without their body pre-cognitively ‘knowing’. By examining their embodied

experience the person who is neurotypical may become re-sensitized to their own sensory embodied experience when viewing their body as more than a mechanism.

It is my hope that this thesis will further the understanding of embodiment of persons who are neurotypical and persons with AS. From this understanding, similarities rather than differences between persons becomes apparent. In addition, boundaries that once separated persons who are neurotypical and those who have AS will become blurred. It will be apparent from my analysis that Merleau-Ponty's phenomenology in addition to Psychology offers a substantially more complete understanding of the pathology of AS and the embodied experience of persons with AS. Additionally, I want to give voice to the embodied experience of persons with AS, whose first person accounts have often been overlooked by Classical Psychology because persons with AS are deemed incapable of self knowledge.

CHAPTER ONE

MERLEAU-PONTY'S PROBLEM WITH CLASSICAL PSYCHOLOGY

All of my knowledge of the world, even my scientific knowledge, is gained from my own particular point of view, or from some experience of the world without which the symbols of science would be meaningless.¹

Merleau-Ponty, a cognitive psychologist writing in the middle of the 20th century, rejected the methodology of inductive reasoning used by Classical Psychology in the diagnoses, research and treatment of persons with disabilities. He found the methodology inherently dualistic, meaning that the brain is treated in isolation from the body. The brain in isolation is therefore given priority over the body, creating a hierarchy. Additionally, the brain is treated as a segmented and compartmentalized organ, with the focus upon locating the malfunctioning module in the brain. Instead, he found that allying Classical Psychology with phenomenology provided a more conclusive explanation for disabilities because the philosophy recognized the patient as a “whole” integrated being, rather than one whose mind and body are split. The person is recognized as a conscious, intentional presence in the world, rather than as a collection of module parts commanded by consciousness.²

In this chapter, I will examine Merleau-Ponty's objection to Classical Psychology as it relates to the findings of one of the current foremost psychologists in autistic research, Dr. Simon Baron-Cohen. I will then explain the framework of the phenomenological method that Merleau-Ponty proposed. By comparing these two

¹ Merleau-Ponty, PP, vii.

² It should be noted that the words ‘consciousness’ or ‘conscious’ are used differently by the disciplines of Psychology and Phenomenology. Consciousness from a phenomenological perspective means presence in the world. For further explanation, please refer to page 34.

methods it will become apparent that Psychology overlooks the ‘whole’ experience of persons with Asperger’s Syndrome (AS), a specific type of autism. In doing so, the analysis provides an incomplete assessment of the pathology. It should be noted that this analysis encompasses only those persons with AS, and does not address the more classical forms of autism. The classical forms of autism are considered to be a severe disability that in most cases requires lifetime institutionalization.

There are various levels of autism. The autistic spectrum is a theoretical tool used by Classical Psychology to measure the degree of functionality a person with autism will have within society. The person with AS is located at one end of the autistic spectrum. This “highly functioning” person is considered to be capable of some degree of contribution within society. At the opposite end of the spectrum is the person with classical autism. This person is considered to have no functionality within society according to this measurement and would generally be institutionalized. Based upon this measurement, persons with AS are not only misunderstood, but their lives are described on the basis of constructed categories.³ The construction of these categories occurs when Classical Psychology explains the difference between what is neurotypical and what not pathological, while in most instances overlooking embodied experience.

Additionally, it should also be noted that ‘neurotypical’ is a constructed category. The categorical divisions of whole/incomplete or able/disabled cover up the reminder that the wholeness of a being is in fact a hallucination, a work of fiction.⁴ Deviations from the expectations of categories are often dismissed as anomalies. By

³ Lennard J. Davis, Enforcing Neurotypicalcy – Disability, Deafness and the Body (London: Verso, 1995) 56.

⁴ Davis, 130.

examining first person accounts of people with AS, these anomalies become important clues as to what Psychology is overlooking. By allying Merleau-Ponty's phenomenological framework to these accounts it will become clear that our understanding of the experience of AS and our conception of the embodiment of persons with AS is enriched by including both perspectives.

In an effort to be more *humane*, the current thinking is to label the disability rather than the person. Rather than write about AS people, the psychologist writes about people with AS. This measure is taken in an attempt to be less offensive when discussing persons with AS.⁵ The pathology is understood by way of the examples found in persons. In essence the pathology is considered separate from the person. This measure is disconcerting because it renders the person's consciousness invisible, while the disease is discussed in the forefront. This consciousness of the person with autism becomes so invisible that, in a strange way, most people speak only of autistic children and never of autistic adults. It is as if autistic children somehow just vanished from the earth, and never grow up.⁶ In essence, understanding the pathology takes precedence over understanding the person, and their experience in-the-world. Merleau-Ponty's phenomenology is critical of this approach because the pathology cannot exist, nor be understood in isolation.⁷ Therefore, the pathology can only be comprehended in relation to understanding the person who is experiencing it.

The methodology of diagnosing AS further marginalizes the person because they are removed from their experiences and environment to be examined within a

⁵Baron-Cohen and Bolton, v.

⁶ Oliver Sacks, An Anthropologist on Mars – Seven Paradoxical Tales (New York: Vintage Books, 1995) 246.

⁷ Merleau-Ponty, PP, 82.

clinic. Because of this removal, the conclusions reached about the person are not always representative of their experience, but are derived by placing them in previously constructed categories. Understandably, for purposes of diagnosis in Psychology, it is critical that the assessment take place at a clinic, because the procedure often involves a variety of specialist investigations, such as intelligence and language testing, in addition to medical and neurological examinations. It should be noted though that the clinic setting also provides a ‘standardized’ context for observing the nature of the person’s difficulties.⁸ Once diagnosed, constructed boundaries and norms set out by psychologists define the limitations of the person with AS’s embodiment and potential experience in-the-world. Additionally, once diagnosed in most cases persons with AS are viewed according to the diagnostic category of the pathology, rather than an individual person with a subjective life. In other words, the disease comes to define them and their experience. While being observed and speculated upon by the scientific community, the person with AS is rarely conferred with about what their experience of embodiment entails. Their conscious embodiment and resulting contributions are often overlooked.

Occasionally, psychologists do evaluate first person accounts written by persons with AS. When consulted about their life experiences, as we will see with Dr. Temple Grandin (a person with AS), psychologists extrapolate specific portions of their experience to support the clinical theories already in place, thus providing further definition of the AS syndrome. Individual observations and accounts from persons with AS are met with suspicion because the autistic ‘mind’ is deemed by the Psychological community to be incapable of self-understanding and understanding of

⁸ Baron-Cohen and Bolton, 15.

others. Because of these limitations, the mind with AS is also incapable of introspection and retrospection. Therefore, for most psychologists, the possibility that a person with AS would write an autobiography is a contradiction in terms.⁹

Much of the meaning of their experience is lost because their accounts are interpreted through the lens of Psychology. Only those portions supporting the theories that the classical psychologist constructs are extrapolated. The person is no longer viewed with potential, but is now assessed according to the categories that construct and define their lives. Because the pathology takes the forefront, the person is no longer just a 'person', but a person with AS. The life of 'an example of a pathology' begins under the empirical gaze. The consciousness of the person with AS becomes invisible.

Because persons with AS are perceived by Classical Psychology as mentally disabled, they are not considered capable of providing an accurate or insightful account of their own condition or experience. In addition to this lack of merit, because the author has AS, little can be learned that is relevant to the experience of neurotypical persons. These accounts are dissected for details that support the current categories of Psychology. This is an effort to understand the pathology, not the experience of the person in the world. The person and their contextualized experience are in essence rendered invisible.

From the philosophical perspective of Phenomenology, the examination of the first person account of AS allows for the whole of the experience to be recognized. It is the 'whole' of the person's experience in the world that is important, rather than the extrapolation of select portions in order to confirm or prove a theory. In addition, first

⁹ Sacks, 253.

person accounts have merit because the philosophy invites the ‘neurotypical’ person to learn from the experience of the person with AS. This occurs by recognizing their consciousness, their presence in the world, and a lack of categorical boundaries.

It is important to understand why Merleau-Ponty thought Phenomenology would be an asset to the analysis of Psychology. As previously discussed, some of his analysis is antiquated by contemporary standards of modern Psychology. Though antiquated, his discussion points towards why allying the two disciplines is crucial to understanding disabilities. At the time, Merleau-Ponty objected to Classical Psychology’s reliance upon the inductive method and causal relationships in the process of diagnosing and categorizing persons with mental disabilities. He illustrated his objection by comparing the methods of Classical Psychology with those practiced by the discipline of Physics.¹⁰ In his era, both disciplines relied on the inductive method to arrive at their findings.¹¹ The inductive method requires observation, followed by a hypothesis about the object observed. The hypothesis is used to establish the possible or probable causes of the behaviour of the subject. This method requires no relationship between the observer and the observed or object. From these observations psychologists were to make their diagnosis and prescribe their treatments. The patient’s ‘being in the world’ is effectively summed up by the observation of the psychologist, thus overlooking the patient’s embodied experience.

In Merleau-Ponty’s era, the inductive method was useful within the discipline of Physics because it provided the ability to propose hypotheses according to a degree of probability. Where the results co-ordinate with the original hypothesis without

¹⁰ Merleau-Ponty, PP, 118. Again, it is noted that his notion of Physics is based upon the knowledge of his era, and again may not be representative of current methodologies used within the discipline.

¹¹ This analysis of scientific method has since been challenged by Nagle, Popper and others.

veering to alternative supportive hypotheses, each progressive experiment or observation increases the likelihood that the original hypothesis is correct. While this method may have been effective for Physics, Merleau-Ponty concluded that Psychology is not in the same position. Psychology cannot be confined to the probability of inductions because the psychologist is unable to choose, even on the basis of plausibility, between hypotheses that are incompatible from a strictly inductive point of view.¹² Therefore, instead of recognizing and understanding individual variance, classical psychologists sought to construct categories by which to describe and define their subject. These constructed categories overlooked embodied experience in an attempt for cohesiveness of the individual variables. In other words, the multitude of variables present in the life experiences of individuals cannot be adequately described or captured by constructed categories. In essence, these categories reduce persons to fit within boundaries. As a result, the 'whole of the integrated experience becomes invisible'.¹³

Merleau-Ponty found that inherent to inductive and causal thought within Classical Psychology is the singling out of one sensation over another, such as vision over touch. In doing so, the power of projection found in all of the senses is concealed. Therefore, according to Merleau-Ponty, the dimension of behaviour that Classical Psychology is supposed to be concerned with is ignored.¹⁴ In essence, by focusing observations on one sense, the whole of the integrated experience, which Merleau-Ponty proposed was to be the focus of Psychology, is not taken into account.

¹² Merleau-Ponty, PP, 118.

¹³ The discussion regarding the reduction of person's experiences as it relates to what Merleau-Ponty terms the 'intentional arc' is found on page 35-36.

¹⁴ Merleau-Ponty, PP, 120.

Because the ‘whole’ of the experience is not taken into account, Merleau-Ponty found that Classical Psychology provided an explanation that was created, not discovered. The facts collected from the observations result in a probable interpretation of the person’s experience because the results become ambiguous, with no experiment decisive and no explanation final.¹⁵ In essence, Merleau-Ponty found that the theory either explained itself or the pathology, but overlooked the conscious embodied experience of the person in-the-world.

To illustrate Merleau-Ponty’s objection to the above mentioned methods, and to show the benefit of allying the disciplines, it is beneficial to examine a contemporary psychologist’s research with regards to persons with AS. Though this contemporary psychologist is employing methodology that is current by today’s standards, this comparison will demonstrate that Merleau-Ponty’s analysis is not antiquated, but applicable to methodologies of contemporary Psychology. The psychologist Dr. Simon Baron-Cohen is considered one of the foremost authorities in autistic research by the contemporary medical community.¹⁶ He has written several books and papers, each expanding his theory of ‘mindblindness’, which he hypothesizes is the reason why persons with AS are unable to form neurotypical social relationships, or to develop neurotypical communication.¹⁷ He describes autistic persons as ‘blind to things’ like thoughts, beliefs, knowledge, desires and intentions, which for most of us self-evidently underlie behaviour.¹⁸ This description

¹⁵ Merleau-Ponty, PP, 115-116.

¹⁶ For other Classical psychologist who promote similar theories about autism refer to: Helen Tager-Flusberg, Donald J. Cohen, Henry M. Wellman and Kristin H. Lagattuta.

¹⁷ Baron-Cohen and Bolton, 1.

¹⁸ Simon Baron-Cohen, Mindblindness – An Essay on Autism and Theory of Mind, (Cambridge, MA: The MIT Press, 1.

includes those with AS. He alleges that persons who are autistic are born ‘mindblind’.¹⁹ He proposes that there are four mechanisms that reflect four properties of the world: volition, perception, shared attention, and epistemic states.²⁰ Each of these four properties is subject to damage, with the nature of the consequent disability dependent upon which property is damaged.²¹ Baron-Cohen specifies that damage to a circuit in the brain that is dedicated to mindreading must be the cause of autism in children who exhibit mindblindness.²² He concludes that the essential difference between people with autism and neurotypical persons can be accounted for by the impairment of one or multiple ‘properties’.²³

For purposes of illustration, Baron-Cohen uses the experiences of Temple Grandin, Ph.D., a person with AS. Dr. Grandin serves to illustrate what Baron-Cohen refers to in subsequent texts, as demonstrating the “flesh on the bones” of AS.²⁴ In essence, Grandin provides an example of the pathology from which Baron-Cohen seeks to demonstrate his findings.²⁵ Currently Dr. Grandin is an Assistant Professor of Animal Science at Colorado State University, and a consultant/designer of livestock handling facilities throughout North America. She has documented her experience of life with AS in two books, which relate her first person accounts. It should be noted that these books are not interpretive accounts written by a parent or

¹⁹ Baron-Cohen, Mindblindness, 11.

²⁰ Baron-Cohen, Mindblindness, 31.

²¹ Baron-Cohen, Mindblindness, 60.

²² Baron-Cohen, Mindblindness, 94.

²³ Baron-Cohen, Mindblindness, 136.

²⁴ Simon Baron Cohen, The Essential Difference – The Truth About the Male and Female Brain, (New York: Basic Books, 2003) 154.

²⁵ It should be noted that Baron-Cohen used Sacks’ interview of Grandin in lieu of her first person account published in 1986.

psychologist from the position of being neurotypical, but describe the contextualized first person experiences of Grandin.

Baron-Cohen discusses Grandin's experiences from a Psychological perspective in an attempt to explain his theories. Though he does have contact with autistic persons through his research, his account of Grandin is not first person. He relies upon the interviews conducted by another author, Oliver Sacks, a neurologist, who documented his visit with Grandin in an attempt to understand her pathology.²⁶ Sacks was curious about Grandin because persons with AS are considered incapable of self-knowledge, therefore they should not be able to write their own account of life experiences.²⁷ Initially, Sacks approached his encounter with Grandin based upon the current findings of the medical community relating to the capacity and potential of persons with AS. Upon meeting her, and discussing her experiences Sacks realized that contrary to current findings, Grandin had the capacity for feelings and empathy. His account stops short of analysis as to how this capacity interrelates to the pathology as described by current Psychology. Instead, his account descriptively relates his surprise that the person encountered with AS was contrary to what the medical community had proposed. In essence, Sacks is providing a first person account of encountering a person with AS.

Based upon Sacks' writings, Baron-Cohen draws generalized conclusions about persons who have AS, and more specifically, he draws conclusions about

²⁶ Oliver Sacks spent a weekend with Grandin, documenting their discussions about her experiences. Sacks did not place Grandin in a clinical environment, but sought to understand her experience within her home, the University, the feedlots and slaughterhouses that employ her as a consultant, and the natural environment found in the mountains of Colorado. Though Sacks assesses Grandin from a neurologist's perspective, such as the way she walks and her manner of speaking, his purpose in interviewing Grandin is to understand her experiences within the context of her environment.

²⁷ Sacks, 253.

Grandin's potential, life experiences, and her difference from the neurotypical.

Baron-Cohen seeks an explanation of Grandin's pathology, while overlooking her embodied experience. His theories do not explain how she has become so successful in her academic and personal endeavours in the 'neurotypical' world. Dr. Grandin serves as 'an example' without intentional presence in-the-world. She serves as an example of what is not neurotypical, but pathological. Baron-Cohen takes the liberty of explaining but a small portion of Grandin's experience, thus defining her entire existence.²⁸

As an example as to whether mindblindness can be overcome, Baron-Cohen discusses Dr. Grandin. The focus of his discussion is whether she is a 'neurotypical' mindreader. To reiterate, his discussion is not based on a first hand discussion or first person account, but relies upon interviews between Grandin and Oliver Sacks. Though Grandin is an educator with a Ph.D., when Baron-Cohen discusses Grandin, he refers to her by her first name, 'Temple', as if referring to a child or object. By taking the liberty of such familiarity, Baron-Cohen not only marginalizes Grandin's experiences, he also fails to acknowledge her 'neurotypical' life achievements, and confines her experiences securely within the boundaries of the disabled.

²⁸ The primary difference between the accounts offered by Sacks and Baron-Cohen is that Sacks acknowledges that Grandin has presence in-the-world. She is more than an 'example' of a pathology, she is a person. Sacks' documents Grandin's experiences as contextualized. He is not reliant upon hearsay, but meets with Grandin himself. Grandin has consciousness in Sacks' account, even though Sacks still observes her and postulates from a neurological perspective about her condition. His account expresses his surprise at Grandin's presence in the world, in opposition to the account offered by most of the medical community. This account stops short of a phenomenological reading between Grandin's life experience and the pathology. Baron-Cohen on the other hand, relies upon Sacks' account to prove his theory. The account that Baron-Cohen relies upon is not first person. Experiences that were applicable to what Baron-Cohen was attempting to prove were extrapolated. Within Baron-Cohen's account of Grandin, her experience is that of 'example' rather than embodied individual experiencing the world. Therefore, her accomplishments in the 'neurotypical' world are marginalized.

From Sacks' interview Baron-Cohen extrapolates examples from Grandin's childhood. He focuses upon the inability to infer the social signals that were easily negotiated between other 'neurotypical' children and her problem understanding theatrical drama productions, such as *Romeo and Juliet*. Grandin states in Sacks' interview that her problem in understanding arose because of 'sequencing difficulties', meaning she got lost in the 'back in forth' play between characters. She could understand "simple, strong, universal" emotions but was stumped by more complex emotions and the games people play.²⁹ Baron-Cohen points to Sacks' observation that contrary to Grandin's own internal examination, the problem arises from her failure to empathize with the characters, or to follow the intricate play of motive and intention.³⁰ In Sacks' interview Grandin describes her memory as having built up a vast library of experiences over the years, videotapes she could play in her mind and inspect at any time of how people behaved in different circumstances. From these 'tapes' she could then predict how people in similar circumstances might act. She complemented her library of experience by constantly reading periodicals, including trade journals and the *Wall Street Journal* – all of which enlarged her knowledge of the 'species'. Baron-Cohen speculates that Grandin's library of experience is a 'Contingency Stance', because of her inability to use the 'Mindreading Stance' in a neurotypical manner. Though this 'Contingency Stance' gives Grandin some predictive power over the apparently unpredictable nature of human action, according to Baron-Cohen, this does not mean that Grandin is cured, that she can 'mindread'. Lacking the neurotypical stance of 'mindreading', Grandin must

²⁹ Sacks, 259.

³⁰ Baron-Cohen, *Mindblindness*, 140.

compute others' feelings, intentions, and states of mind, to try to make algorithmic or explicit what for the rest of us is second nature.³¹ Finally, Baron-Cohen states that for Temple Grandin, as for other adults with AS whom he has met, who are making astonishing adaptations to their disability, mindreading remains mysterious and confusing. They remain, to some extent, blind to the 'language of the eyes'.³²

Baron-Cohen expands his mindblindness theory with a discussion of "folk psychology" and "folk physics". He refers to understanding other minds as "our folk psychology". In this view, the brain needs to be able to maximize the survival of its host body in response to at least two broad challenges: predicting the physical and the social environment. 'Folk physics' is the search for the physical cause of any kind of event. Baron-Cohen postulates that AS is a cognitive profile of superior folk physics (searching for the physical causes of any other kind of event), alongside of an impaired folk psychology, both arising because of genetic reasons.³³ Baron-Cohen concludes that experimental tests reveal a vast majority of persons with AS are deficient in their folk psychology, which is thought to underlie their difficulties in social and communicative development. In contrast, persons with AS are average, if not superior, to developing neurotypical children in the area of folk physics.³⁴ In extreme cases, severe autism could be characterized by almost no folk psychology (and thus 'mindblindness') and no folk physics. Although the autism spectrum – the range between classical autism and higher-functioning autism or AS – is

³¹ Baron-Cohen, *Mindblindness*, 141.

³² Baron-Cohen, *Mindblindness*, 143.

³³ Simon Baron-Cohen, "Autism: Deficits in Folk Psychology Exist Alongside Superiority in Folk Physics", *Understanding Other Minds – Perspectives From Developmental Cognitive Neuroscience*, eds. Simon Baron-Cohen, Helen Tager-Flusberg and Donald J. Cohen (New York: Oxford University Press, 1993) 73.

³⁴ Baron-Cohen, "Autism: Deficits in Folk Psychology", 75.

differentiated and assessed according to degrees, Baron-Cohen allows for no variance in the autism spectrum for ability of folk psychology.³⁵ In essence, no matter where on the autism spectrum the person falls, they are considered mindblind. Variations in the degree of autistic behaviour, the spectrum between classical autism to AS, are accepted yet no variance is allowed for ‘mindblindness capabilities’ within Baron-Cohen’s theory. Either one is mindblind thus autistic, or the person is considered to be neurotypical. The person with AS demonstrating any capability of mindreading becomes invisible. Additionally, there is no provision within the theory for the neurotypical person to be mindblind in any degree. The neurotypical person is always a mindreader without impairment.

Recently, Baron-Cohen has furthered his mindblindness theory to speculate that persons with autism possess brains that are what he terms “extreme male brains”. He describes the person with AS as having a strong inner drive to systemize, meaning that this person becomes a specialist in something, or even in everything they delve into. This systemizing drive of AS is often a drive to identify the underlying structure of the world.³⁶ Baron-Cohen defines and generalizes the female brain as characterized by the individual’s greater ability to empathize than systemize. He is quick to note that many people have neither the male nor the female brain because their empathizing and systemizing abilities are pretty much in balance.³⁷ These brains are not given a name, but could only belong to those who are considered neurotypical. The results of a test called the ‘Empathy Quotient’ showed that females score higher than males, but that people with AS score even lower than males,

³⁵ Baron-Cohen, “Autism: Deficits in Folk Psychology”, 77-78.

³⁶ Baron-Cohen, *The Essential Difference*, 149.

³⁷ Baron-Cohen, *The Essential Difference*, 150.

irrespective of their gender. From this study, Baron-Cohen concludes that persons with AS are empathy impaired.³⁸

In order to demonstrate the systemizing drive and ability of persons with AS, Baron-Cohen points to tests of intuitive physics that showed males score higher than females, while persons with AS score higher than males. In addition, he has observed that males are over-represented in departments of mathematics. He points out that math is frequently chosen by people with AS, as their favorite subject in school. Boys, according to Baron-Cohen, prefer constructional and vehicle toys more than girls do, as do children with AS. Furthermore, as adults, males prefer mechanics and computing more than females do. Similarly, people with AS have the same as their major leisure interests. Finally Baron-Cohen refers to the ‘Tomboyism Questionnaire’, in which girls with AS proved to be less interested in female-typical activities (this he does not specify), while men with AS were reported to show precocious puberty, correlating with increased levels of current testosterone. Based upon these findings, Baron-Cohen theorizes that the autistic brain is an extreme version of the male brain.

It is interesting to note that the persons with AS that Baron-Cohen describes, lack physical gender. The subject of the physical gender is only relevant to the neurotypical male or female. Based on Baron-Cohen’s results, persons with AS who are male or female, have exactly the same generalized experience. With no variance between male and female persons with AS, difference is experienced only between the neurotypical female, neurotypical male, and the person with AS having an

³⁸ Baron-Cohen, The Essential Difference, 151.

‘extreme male brain’. The person with AS is relegated to a genderless position of ‘other’³⁹

One can imagine Merleau-Ponty chuckling at Baron-Cohen’s findings. He would conclude that these findings are a product of standardized tests and clinical observations which provide an analysis of the consciousness of the person with AS, while overlooking their embodied existence. The question remains though how much we know about Temple Grandin’s embodied experience, and what has been learned about AS. Merleau-Ponty stresses that there is a difference between the empirical world and the phenomenal world. The empirical world is an objective world that is already constituted. The phenomenal world is un-constituted, therefore it takes shape before us and expresses itself in our experience. Merleau-Ponty finds that the empirical world fails to account for consciousness and has lost sight of it (consciousness) as the place where the world appears.

In an interesting twist, Baron-Cohen’s primary theoretical focus is his theory of ‘mindblindness’ concerning persons with autism, but several years prior, Merleau-Ponty compared empiricism to “a kind of mental blindness”. What he would have found missing from Baron-Cohen’s theory was the presence of the subject.⁴⁰ Under the clinical gaze Grandin is not a person, but becomes an example of the pathology. The observation of Grandin as ‘example’ does not acknowledge her consciousness, her presence. Merleau-Ponty refers to this as “...qua consciousness ‘I have a body’.

³⁹ Not acknowledging the physical gender of the person with AS renders invisible experiences both women discussed in this thesis had with sexual harassment. Both women discuss harassment during the course of their employment. Ignoring their integrated experience of being a woman with AS in the world, in favour of the modular focus of the ‘extreme male brain’ with a genderless body, nullifies their experience and renders their voice mute.

⁴⁰ Gary Brent Madison, The Phenomenology of Merleau-Ponty – A Search for the Limits of Consciousness. (Athen, Ohio: Ohio University Press, 1981) 151.

My body properly belongs to me. The body of which science and objectivistic philosophy speak is a secondary, thematized body, and that body does not exist; it is but a thought body.”⁴¹ The body found in textbook diagrams and constructed categories is very different from the body located in the world of experience. The body in the world must belong to someone, because there is never ‘just a body in the world’, but a body that is a person with presence in the world.

With each successive expansion of Baron-Cohen’s thesis, the brain becomes further separated from the body and experience of the person in the world. Additionally, the brain becomes hierarchically more important than the body because it is deemed the centre of the pathology. The brain in this theory finally becomes gender-specific. Not only is the brain gender specific, the brain of a person with AS is an extreme form or variation of what Baron-Cohen finds to be neurotypical gender brain activity. The ‘intentionality’ of the person with AS is overlooked within Baron-Cohen’s analysis, along with their embodied experience.

Merleau-Ponty’s phenomenology claims that “... the body has its own intentionality, one that is prior to and independent of any symbolic function, categorical attitude or intelligible condition of consciousness conceived as representation.”⁴² In essence the body is an ‘expressive space’.⁴³ Without the body, Grandin would not be in the world. It is through the body’s intentionality that we experience the world. Our bodies communicate with the world pre-cognitively.⁴⁴ For example, consider the cognitive thought that goes into blinking. One could consider

⁴¹ Madison, 23-24.

⁴² Merleau-Ponty, PP, 137-139.

⁴³ M. C. Dillon, *Merleau-Ponty’s Ontology*, (Evanston, IL: Northwestern University Press, 1988) 135.

⁴⁴ Madison, 169.

this process automatic. The process is completed without direction of our cognitive faculties. Similarly, our body is in the world, without our having to conceive of a purpose or reason for it to be there. All that reflection does is note the contingency of this fact and recognize in it the primary embodiment of rationality without looking any farther. “Beyond this fact there is nothing to understand. Phenomenology has no other mission than to reveal the mystery of the world and of reason.”⁴⁵ Grandin’s intentional experience of ‘being in the world’ is silent within Baron-Cohen’s findings. With her experience observed (actually read about) and reported on, she becomes an example of a less-than-neurotypical-person. Additionally, absent from Baron-Cohen’s account is the failure to realize that the world is not ready-made for him, but he too is a perceiving subject with consciousness or presence.⁴⁶ Unlike Merleau-Ponty’s description of the empirical as a ready-made world, there are no neutraltypical objective observers in the phenomenal world.

Baron-Cohen’s contemporary analysis illustrates that what Merleau-Ponty found to be overlooked by Classical Psychology: the consciousness of an integrated being existing in a phenomenal world. He found that there needed to be a revision in the analysis of Psychology, especially with regards to persons who have disabilities. There is more to the experience of disability than defining the boundary of neurotypical and ‘other’. He thought that instead of focusing upon specific senses, the integrated experience of persons with disability or difference from the norm would lend themselves to discover the ‘seat of the illness’.⁴⁷ He theorized that the ‘seat of illness’ was precisely what was overlooked by using the inductive methodology to

⁴⁵ Merleau-Ponty, PP, xvi.

⁴⁶ Merleau-Ponty, PP, 240.

⁴⁷ Merleau-Ponty, PP, 134.

formulate theories. Also ignored are the pre-cognitive substitutions that persons with disabilities make. A ‘substitution’ is what Merleau-Ponty deems to be a pre-cognitive method or action that a person who is disabled takes in lieu of what would be considered the norm. This could be described as the body ‘knowing’ and responding. In many instances this ‘substitution’ reaches the same or similar results, only by an alternative process. The analysis of the phenomenon of substitution is not made in terms of how the disabled try to function as neurotypical. The focus is how, as a separate cohesive methodology, the substitution stands ‘apart’ from the neurotypical. The examination of the substitutions made by disabled persons in their experience of the world provides a more complete understanding of embodiment both for the disabled and the ‘neurotypical’.⁴⁸ Additionally, by examining the “seat of illness” and the phenomenon of substitution, what Merleau-Ponty describes as the ‘third term’, which is somewhere between the psychic and the physiological, the consciousness in the world, can be realized.⁴⁹

Classical Psychology has missed what Merleau-Ponty describes as ‘the seat of illness’, in part because of the superficiality of inductive reasoning. The inductive method of evaluating persons in a segmented manner resulted in an often compartmentalized or modular methodology. This approach fails to consider a person’s integrated embodied experience, and more importantly what this integrated experience reveals about the person and the experience of embodiment. Embodiment in the world requires that the person occupy space. The person is ‘in the world’.

“The experience that one has of one’s body teaches a mode of existence because the

⁴⁸ Merleau-Ponty, PP, 106.

⁴⁹ Merleau-Ponty, PP, 121.

lived body is not a mechanism.”⁵⁰ In other words, the only way to know the phenomenal body is by living it. The world we rediscover through reflection is a world we have inhabited through our bodies: and the body has intention that gives structure to the world by dividing it up and making things stand out from each other because of the thing’s position in relation to the body.⁵¹ As Merleau-Ponty describes, “If consciousness is placed outside being, the latter cannot breach it, the empirical variety of consciousnesses – morbid, primitive, childlike consciousness, the consciousness of others – cannot be taken seriously, there is nothing to be known or understood, one thing alone makes sense: the pure essence of consciousness.”⁵² Grandin, a being in the world, is this pure essence of consciousness.

Merleau-Ponty illustrates his point with reference to Schneider, a man who suffered a wartime injury, wherein a shell splinter wounded him in the back of the head. This injury affects his motility as well as his perception. What is damaged is the domain of thought, his power of apprehending simultaneous wholes. In the case of motility, he is unable to take a bird’s eye view of movement and projecting it outside himself.⁵³ Similar to persons with AS described by Baron-Cohen, Schneider cannot understand metaphorical expressions such as ‘hitting the nail on the head’ in the course of a discussion. He manages to understand only by explicit recourse to conceptual analysis.⁵⁴ This would be similar to Baron-Cohen’s description of Grandin’s difficulty understanding the performance of *Romeo and Juliet*. She could understand “simple, strong, universal” emotions but was stumped by more complex

⁵⁰ Madison, 24.

⁵¹ Madison, 29.

⁵² Merleau-Ponty, PP, 125.

⁵³ Merleau-Ponty, PP, 126-127.

⁵⁴ Merleau-Ponty, PP, 128

emotions and the games that people play.⁵⁵ In essence, abstract concepts cause difficulties. “While Schneider’s general intelligence is intact, his replies are slow, never meaningless, but those of a mature, thinking man who takes an interest in the doctor’s experiments. Beneath the intelligence as an anonymous function or as a categorical process, a personal core has to be recognized, which is the patient’s being, the power of existing. It is here that the illness has its seat.”⁵⁶ Implicit to Merleau-Ponty’s description is that the personal core and experiences belong to Schneider. Though he is ‘in the world’, at the same time ‘he is for himself’. Though Schneider exhibits a disability that separates him from the norm, he is a consciousness in the world, a presence. As a consciousness, Schneider experiences the phenomenal world. At the same time, Schneider is present to the world, not as object or subject, but as part of the woven connectivity of the phenomenal world.⁵⁷

The ‘whole’ must be grasped without reductively stripping away meaning and integrity. Both the embodied and the biological experiences are grasped. This interwoven experience will reveal intrinsic temporalities, reflexivities and what Richard Zaner describes as ‘contextualities’, which describe the embodied organism as a complex contexture that is always on display with and amongst objects and other embodied beings.⁵⁸ There is no way to section off the body from itself, or the embodied self from the phenomenal world. One of the impressive features of contextures is that they tend to endure or maintain themselves, representing strength

⁵⁵ Sacks, 259.

⁵⁶ Merleau-Ponty, PP, 134.

⁵⁷ Richard M. Zaner, The Context of Self – A Phenomenological Inquiry Using Medicine as a Clue, (Athen, Ohio: Ohio University Press, 1981) 51.

⁵⁸ Zaner, 68.

and connectedness.⁵⁹ The connectivity of the person to the world and the world to the person is overlooked in the account of Baron-Cohen's description of Grandin's experiences. His analysis privileges interpersonal connectivity while overlooking Grandin's connectivity with the phenomenal world. As a result, she serves as an example of a person with AS, rather than an embodied being experiencing the 'whole' of the phenomenal world.

By allying the methodology of Psychology with the philosophy of Phenomenology, Merleau-Ponty proposed that the real work of Psychology could begin because the 'seat of the illness' would now be the focus. Merleau-Ponty is not seeking a norm, but rather an explanation derived from an integrated consciousness expressing its experience in the world. This work would not start from the position of attempting to prove a hypothesis, or to set a boundary between the disabled and the neurotypical. Not only is the patient acknowledged to have consciousness, but the researcher is also part of the same phenomenal world.

By locating the 'seat of illness', it becomes possible to understand how the disabled function spatially by substitution. The neurotypical subject lives in a spatial context structured both by physical restrictions and by theoretical possibilities. In neurotypical subjects the genesis of spatiality proceeds from "(a) the level of the immediate responses of bodily intentionality to concrete needs within the actual context to (b) that of the realization and sedimentation of increasingly abstract and theoretical possibilities."⁶⁰ Because the disabled person, in many instances, cannot perform the movements that a neurotypical person can, there is a need to account for

⁵⁹ Zaner, 98.

⁶⁰ Dillon, 138.

this degeneration in terms of a departure from the spatial neurotypical.⁶¹ Substitution is what the disabled do pre-cognitively, not to compensate their spatiality, because this would imply a drive towards being neurotypical, but to facilitate their own means of 'being-in-the-world'. What Merleau-Ponty finds critical in the phenomenon of substitution is the 'impulse' to be-in-the-world.⁶² The 'impulse' is not a conscious choice, because this would imply that a person would have to constitute the world prior to experiencing it. This impulse is 'pre-reflective', meaning that it occurs before cognitive analysis. Substitution is what the body does to be-in-the-world. For example, when Grandin was a young girl spinning was a favourite activity. She would sit on the floor and twirl around. The room would end up spinning with her. Her explanation is that the self-stimulatory behaviour made her feel powerful, in control of things. Spinning helped her to focus. Empirically explained, there is a mechanism in the inner ear that controls the body's balance and integrates visual and vestibular input. Through a series of nerve connections, the eyes, after some amount of spinning, will start jumping about (become nystagmatic) and the stomach queasy. Then, the child will stop twirling and spinning. Autistic children often have reduced nystagmus. It is as if their bodies were demanding more spinning as a kind of corrective factor in an immature nervous system.⁶³ Missing from the empirical explanation is the fact that the spinning helped Grandin to focus. The empirical explanation overlooks Grandin's experience from spinning, how the experience made her feel both physically and psychologically. By allying the feeling derived by her

⁶¹ Dillon, 137.

⁶² Merleau-Ponty, PP, 106.

⁶³ Temple Grandin and Margaret M. Scariano, Emergence – Labeled Autistic, A True Story (New York: Time Warner Books Inc., 1986) 18.

experience with the physiological explanation of reduced nystagmus, a clearer understanding of the behaviour of spinning results.

More importantly, substitution anchors the subject to a certain ‘environment’, or situation.⁶⁴ This ‘impulse’ to be-in-the-world has purpose, therefore, substitution cannot be random or half-hazard. In addition, the phenomenon of substitution cannot simply be correlated to a deficiency that the disabled lack and are trying to recover in an effort to be neurotypical. Rather, Merleau-Ponty finds substitution to be a ‘complete form of existence’ that replaces the neurotypical functions that have been destroyed or never existed, as opposed to an adaptation of the neurotypical. “Therefore, it is impossible to deduce the neurotypical from the pathological, deficiencies from the substitute functions, by a mere change of a sign. We must take substitutions as substitutions, as illusions to some fundamental function that they are striving to make good, and the direct image of which they fail to furnish.”⁶⁵ As a complete form of existence, pathological spatiality is not to be understood as a simple reduction in or restriction of neurotypical spatiality. This would result in a dichotomy between the neurotypical and the pathological leading to no further understanding of the disability. Though a person’s capacities are restricted, what makes the behaviour pathological (as opposed to primitive or undeveloped) is the attempt the body makes to compensate for its losses by “substitution behaviour”.⁶⁶ For example, there were no doctors, teachers, or parents who suggested to Grandin that if she spun about, she would feel better. This is a substitution that her body found by being in the world that gave her control, better focus and comfort.

⁶⁴ Merleau-Ponty, PP, 106.

⁶⁵ Merleau-Ponty, PP, 107-108.

⁶⁶ Dillon, 137.

The substitution phenomenon cannot be deciphered empirically because the focus always reverts to the dichotomy of neurotypical versus ‘other’. The phenomenon cannot be defined in terms of a mental process or calculations; but rather in terms of a certain manner of presenting its object.⁶⁷ In essence, what is acknowledged is consciousness. Clinically, substitution is not a matter of choosing between a description of the disorder that furnishes the meaning and an explanation that provides the cause.⁶⁸ Causation does not figure into the substitution phenomenon. The subject is not to be understood as reverting or remaining in earlier or more primitive stages, customarily experienced in the neurotypical process of development. It is rather the case that the subject creates a style of her own.⁶⁹ It is in this manner that the phenomenon is a complete form of existence.

For those who are neurotypical, injuries and disease result in a degeneration of their lived worlds. Schneider’s wound damaged his world, not merely as a physical injury, as an empiricist might claim, but as a consequence which cannot be explained in that reductive way. More than the specifics of the injury are necessary to explain Schneider’s affliction; “the meaning of the wound must be considered if its consequences are to be understood.”⁷⁰

The same would be true of the disabled person, for instance the person with AS, whose existence knows no neurotypical existence. Disability is their existence or consciousness, therefore the meaning of their disability cannot be considered in a reductive manner. This is why observing the phenomenon of substitution cannot be

⁶⁷ Merleau-Ponty, PP, 114.

⁶⁸ Merleau-Ponty, PP, 115.

⁶⁹ Dillon, 138.

⁷⁰ Dillon, 139.

empirically focused upon as the desire to return to being neurotypical. One cannot return to where one has never been. Also implicit in the notion that the disabled are attempting to be 'neurotypical', is the idea that 'neurotypical' is hierarchically better. Dr. Grandin states "If I could snap my fingers and be non-autistic, I would not – because then I wouldn't be me. Autism is part of who I am."⁷¹

Merleau-Ponty's explanation of what Classical Psychology overlooked is ultimately the consciousness or presence in the world of those who are disabled.

Consciousness lies beneath the flow of impressions as an explanatory invariant, because we are in the world, we are present. Consciousness is the 'thickness' that gives form to the stuff of experience. Consciousness does not have this power, but is the power itself. As soon as there is consciousness, and in order that there may be consciousness, there must be something to be conscious of, an intentional object, and consciousness can move towards this object only to the extent that it 'de-realizes' itself and throws itself into it, only if it is wholly in this reference to...something, only if it is a pure meaning-giving act. If a being is consciousness, he must be nothing but a network of intentions. If he ceases to be definable in terms of the act of sense-giving, he relapses into the condition of a thing, the thing being precisely what does not know, what slumbers in absolute ignorance of itself and the world, that consequently is not a true 'self', i.e. a 'for-itself', and has only a spatio-temporal form of individuation, existence in itself.⁷²

He found that the primary flaw of Classical Psychology is that it ignores the consciousness of the person the observer is analyzing. Its findings, therefore, result in incomplete analyses. On the other hand, by approaching the person who differs from the neurotypical, as consciousness, he proposes that the psychologist will ultimately find the "seat of illness".

Critical to most discussions of disability is the categorization that assigns to persons degrees of personhood. The degrees of personhood are dependent upon being

⁷¹ Temple Grandin, Thinking in Pictures and Other Reports from My Life With Autism. (New York: Doubleday, 1995) 16.

⁷² Merleau-Ponty, PP, 121.

neurotypical. There exists the neurotypical person, the newly disabled person, and the disabled person (the person with AS).⁷³ This also exists with the autism spectrum that measures the degree of autism from classical autism to AS. Similar to Baron-Cohen's finding that one is either mindblind or one is not. Merleau-Ponty rejects the notion of degrees of consciousness (again remember that he is referring to 'presence' rather than being dead or alive) as a measure of personhood. Either one is conscious or one is not conscious. If a patient no longer exists as a consciousness, they must exist as a thing. To exist as a thing is to exist as an object. "Either movement is movement for itself, in which case the 'stimulus' is not its cause but its intentional object – or else it disintegrate and is dispersed in existence in itself, and becomes an objective process in the body, whose phases are success but unknown to each other."⁷⁴

The physiological explanation often generalizes, making the movements of the body one of mechanism rather than intention. This explanation maintains two distinct dualistic categories: the psychic determined by the brain, and the physiological determined by the body. What is overlooked is what Merleau-Ponty calls the 'third term', that 'something' between the psychic and the physiological. This 'third term' is existence, the consciousness, the intentional person being-in-the-world. Without the recognition of this 'third term', the classical psychologist is doomed to constantly fall back upon the traditional dichotomy of body and consciousness, or dualism.⁷⁵ In this dichotomy, there is room for degrees of personhood, yet the conclusions drawn are based upon incomplete analysis because consciousness is not present.

⁷³ Davis, 7-8.

⁷⁴ Merleau-Ponty, PP, 121-122.

⁷⁵ Merleau-Ponty, PP, 122.

Embodied consciousness must be acknowledged to locate the ‘seat of illness’. The ‘seat of illness’ is not located by observation, but in what Merleau-Ponty terms the ‘intentional arc’. The ‘intentional arc’ describes behaviour in relation to objects. The life of consciousness or the cognitive life is subtended by the ‘intentional arc’ that projects around persons their past, their future, their human setting, their physical ideological, and the results of being situated in all of these respects. The ‘intentional arc’ brings about the unity of the senses, of intelligence, of sensibility and motility. In illness or disability, this arc goes awry.⁷⁶ Though the intentional arc is in disarray, the person is still consciousness, and therefore not relegated to object. Understanding pathology from the perspective of the intentional arc rather than solely upon observation would allow the psychologist to comprehend the multiple threads of intention that make up the patient’s life. “Neither the body nor existence can be regarded as the origin of the human being, since they presuppose each other. The body expresses total existence, not because it is an external accompaniment to that existence, but because existence realizes itself in the body.”⁷⁷ For this reason, we are prevented from ‘reducing’ existence, because existence is not a set of facts capable of being reduced by others or by which they can reduce themselves. “Existence is an ‘intercommunication’, the point at which their boundaries run into each other, or again their woven fabric.”⁷⁸ One cannot separate the neurotypical from the disabled, or the sensations of touch from sight, as a means of observed explanation. “All human ‘functions’, are rigorously unified in one synthesis, it is impossible to distinguish in the total being of man a bodily organization to be treated as a

⁷⁶ Merleau-Ponty, PP, 136.

⁷⁷ Merleau-Ponty, PP, 166.

⁷⁸ Merleau-Ponty, PP, 166.

contingent fact, and other attributes necessarily entering into his make-up. Everything in man is a necessity.”⁷⁹ Because everything is a necessity the disabled must be considered as an integrated consciousness in the phenomenal world that may have an existence quite unlike our own, but there are no boundaries. The boundary of the neurotypical and the disabled only exist in the fabricated empirical world. In the phenomenal world, I am the disabled and the disabled is me.

According to Merleau-Ponty, the human being is a historical idea, a fabrication.⁸⁰ The dichotomies between the neurotypical and the disabled are an abstraction, built upon this historical idea. It could be surmised that very little is really known about humans, with regards to their consciousness in a phenomenal world. Empiricism is useful in disciplines such as physics, but only skims the surface of the consciousness of mankind.

It is through my body that I understand other people, just as it is through my body that I perceive ‘things’. The meaning that we give ourselves and others through movements and gestures are not understood by what is ‘behind it’. This is an empirical notion. The meaning is ‘intermingled’ with the structure of the world outlined by the gesture, and which I take up on my own account.⁸¹

Understood in this manner, there are no objective observers because the observed and observer are both in the phenomenal world.

Merleau-Ponty’s phenomenological framework provides an additional means of understanding the phenomena of AS, complementing the methodology of contemporary Psychology. With this alliance, the person with AS is not approached as ‘other’ but is recognized as a consciousness in the phenomenal world, as is the

⁷⁹ Merleau-Ponty, PP, 170.

⁸⁰ Merleau-Ponty, PP, 170.

⁸¹ Merleau-Ponty, PP, 186.

person writing about them. Their first person accounts serve to explain their ‘presence’ in the world, their phenomenon of substitution, and the ‘third term’. By viewing these accounts cohesively as persons’ life experiences, rather than extrapolating from the accounts what is necessary to support Psychological theory, much can be learned about neurotypical embodiment.

Sacks describes persons with AS having that “...something, a sort of moral or intellectual intensity or purity, so far removed from the neurotypical as to seem noble, ridiculous, or fearful to the rest of us.”⁸² In the next chapter I will introduce the reader to two individuals with AS, Dr. Temple Grandin and Dr. Dawn Prince Hughes, via their first person accounts. I will then place Merleau-Ponty’s phenomenological framework over their first person accounts to analyse their means of substitution and phenomenal experience. Both of these women have AS, but more importantly, both of these women have, on their own, found a non-hierarchical continuous thread of embodiment that equally connects the human being to the phenomenal world and the phenomenal world to the human being.

⁸² Sacks, 252.

CHAPTER TWO

MERLEAU-PONTY'S FRAMEWORK APPLIED

Autism is a way of sensing the world – the whole world – of creating and knowing. It is my hope that as more autistic people find places to learn about themselves and grow, as they tell their stories for themselves and all people, they will find ways to share their special talents with the world. I hope they will be perceived as being as whole as the worlds they sense. Like all human and other persons, we are not only part of things but whole already. As whole cultures within one, we have much to sing about.¹

For the person with AS, the experience of the world differs from that of the neurotypical person. The person with AS experiences the world in a state of sensory overload. This state causes indifference to or total rejection of social interaction.² Every sight, colour, sound, smell or touch comes crashing in on them as they experience the world. In other words, they experience the world as a barrage of sensation. The neurotypical person's body 'tunes' out many of these sensations, to focus upon what they desire. In reaction to sensory overload, the person with AS pre-consciously employs the method of substitution. This method is pre-conscious, meaning that no prior cognitive thought or training is employed in the substitution. Nor can the substitution be viewed as a means for the person with AS to experience the world as neurotypical. Rather, the substitution stands as a cohesive manner of being in-the-world that may or may not provide similar results to those of the neurotypical.

¹Prince-Hughes, 224.

²Karen Zelan, *Between Their World and Ours – Breakthroughs with Autistic Children* (New York: St. Martin's Press, 2003) 1.

Accounts written by empirical observers have explained the state of sensory overload experienced by persons with AS in an objectified manner. These accounts focus upon the boundary between the neurotypical and pathological. To maintain the hierarchical status of ‘neurotypical’, the boundary must be cautiously preserved. This effort requires that the disabled remain neatly confined within their designated categories. Despite accounts written by persons with AS describing and explaining their autistic experience, empirical science has continued to treat persons with AS based upon their own objective observations.³ For example, by disregarding first person accounts that describe the physical pain associated with tactile human contact, some therapists still recommend that parents forcefully hold their ‘wild or withdrawn’ children in order to convince them of the social benefits of being physically close. In addition, children with AS are often subjected to structured behavioural regimes that disregard how autistic persons ‘feel’.⁴

The first person accounts written by those with AS have merit. These accounts demonstrate that persons with AS should be perceived as capable of shaping their own lives in significant ways.⁵ The accounts are not mere anecdotal passages, entertainingly written by persons defined by the medical community as having no capacity for self-knowledge. Instead, these accounts should facilitate understanding the experience and means of substitution incorporated by those with AS. In addition, these passages give ‘voice’ to the AS community, expanding the forum by which those with AS share their relational experiences of being in-the-world.

³ Zelan, 2-3.

⁴ Zelan, 2.

⁵ Zelan 3.

A humanistic approach that returns the focus to the whole person, regardless of their often withdrawn or wild behaviour is necessary. This humanistic approach is exemplified by Merleau-Ponty's phenomenological philosophy. This philosophy recognizes the person with AS, as a whole integrated person rather than a modular composition. The person is not treated in parts, but as a 'conscious being experiencing the world'. The key to discovering the reason or purpose for the actions of those with AS is recognizing the actions outside the expectation of what is neurotypical. Discovering the means and method of the 'phenomenon of substitution' will point to reasons for the actions, and the purpose behind them. Merleau-Ponty encourages analysis of embodied experience rather than exclusively depending upon objective observation. In this manner, the reason or purpose is not purported by an objective observer, but is conveyed by those who live with AS. As previously discussed, the phenomenon of substitution is not a means by which persons with AS attempt to be neurotypical. Rather, the substitution is a separate cohesive methodology that stands apart from the methodology of the neurotypical.⁶ In addition, the analysis of the phenomenon of substitution provides for a better understanding of the 'seat of illness'. More importantly, this analysis enriches our understanding of embodiment for those persons with AS, as well as those who are considered neurotypical.

Two first person accounts are discussed in this chapter: one by Temple Grandin, one by Dawn Prince-Hughes, both of whom have AS. Though their accounts have similarities, the experiences discussed cannot become or should not be considered the generalized norm for the person with AS. To generalize these

⁶ Merleau-Ponty, PP, 106.

accounts would require standard categorization of their experiences. Though some of the ‘substitutions’ they rely upon are very similar, each of these women are separate entities whose experiences are unique to her embodiment. The similarities between ‘substitutions’ point to the ‘seat of illness’. It is important to remember that the experience related in these accounts is one experienced with consciousness. These women are embodied beings, rather than examples of a pathology as described by the medical community. Their accounts describe their experiences first-hand, written from their perspective. It is this consciousness or ‘third term’, located between the psychic and the physiological that Merleau-Ponty finds critical to understanding embodiment because “...only an embodied being can experience the phenomenal world as a network of intentions.”⁷ Conversely, a person who is an object or thing lives in absolute ignorance of themselves and the world.

The merit of these women’s accounts will be recognized by examining instances of the ‘phenomenon of substitution’ in their experiences. Additionally, some of the boundaries between neurotypical and the disabled will become indistinct. These highly-functional autistic women have different means of navigating being-in-the-world because of the phenomenon of substitution. Because of this phenomenon, they have work-related success in areas where neurotypical persons would not. In these cases, applying the term ‘disabled’ to either of these women would be inaccurate. These instances speak to the dynamic nature of the phenomenon of substitution. This phenomenon is what Merleau-Ponty described as an ‘impulse’ to be-in-the-world.⁸

⁷ Merleau-Ponty, PP, 121.

⁸ Merleau-Ponty, PP, 106.

Temple Grandin is an Assistant Professor of Animal Science at Colorado State University, and a consultant/designer of livestock handling facilities throughout North America. In recounting her childhood, she recalls the frustration of not being able to talk until the age of three. This inability caused her to throw tantrums. She could understand what people said to her, but could not get her words out.⁹ Screaming was her only way of communicating.¹⁰ She finds that because she was unable to communicate adequately, her ability to think visually was enhanced and eventually replaced verbal thinking. By thinking visually, memories played like a ‘movie on the big screen’ in her mind.¹¹ At age three, Grandin’s mother took her to a neurologist for an examination because she was not behaving in the same manner as other little girls. Though Grandin tested borderline autistic by the standards of the Rimland checklist,¹² the doctor concluded there were no physical impairments, and suggested a speech therapist for her communication disability.¹³ By today’s medical standards, Grandin would have been diagnosed with Asperger’s Syndrome or AS, a designation within the autism spectrum. As previously discussed, the autism spectrum is a linear degreed measurement of autistic pathology.

Because Grandin’s family was aware that she had special needs, her educational experience was closely monitored. After removal from several schools for behavioural problems, Grandin attended a boarding school whose primary

⁹ Grandin, 44.

¹⁰ Grandin and Scariano, 13.

¹¹ Grandin and Scariano, 15.

¹² The Rimland Checklist is a means by which to empirically diagnosis autism. A score of +20 indicates classical autism or Kanner’s syndrome. Grandin scored +9. This test has been revised and expanded in later years to account for more variation in the autistic spectrum, especially in the diagnosis of AS.

¹³ Grandin and Scariano, 16-17.

directive was to “assist gifted children reach their highest potential.”¹⁴ She knew that she did not fit in with her high school peers, but was unable to figure out what she was doing wrong. No matter how hard she tried, her peers still made fun of her.¹⁵ After graduating high school, Grandin attended post-secondary institutions to receive her Master’s and Ph.D. She credits no single breakthrough enabling her to adapt to autism, but points only to a series of incremental improvements.¹⁶ While attending University, Grandin came to the realization that ‘she’ was different. Prior to this, she thought ‘her classmates’ were different. She realized that she was alienated from her classmates by not quite fitting in, but then understood that her ‘difference’ was because she was autistic.¹⁷

Dawn Prince-Hughes is a professor at the University of Washington – Bellingham, specializing in Anthropological research of ‘ape culture’. In contrast to Grandin’s account, Prince-Hughes was not diagnosed with AS until she was thirty-six years of age.¹⁸ Her behaviour was described by her mother as ‘wild’.¹⁹ Her family moved several times prior to Prince-Hughes moving out at the age of sixteen. The family’s final move was to a location in a remote area of Montana. At this point, the family cohabitated in a small travel trailer. Living within the confined space of the small trailer with several family members was painful for Prince-Hughes because of the close proximity and lack of privacy from other family members. The constant physical contact was disconcerting and at times painful because of her tactile

¹⁴ Grandin and Scariano, 62.

¹⁵ Grandin, 33.

¹⁶ Grandin, 35.

¹⁷ Grandin and Scariano, 121.

¹⁸ Prince-Hughes, 27.

¹⁹ Prince-Hughes, 40.

sensitivity. Her education was punctuated by a lack of understanding or intolerance from faculty and school administration. Additionally, while at school, she was physically abused by her peers. The abuse ranged from forcing her head in a toilet to throwing trash at her in the hall.²⁰

Prince-Hughes dropped out of high school and became homeless at sixteen.²¹ As a person with AS, she found relationships with other homeless persons difficult. The majority of homeless persons have the advantage of weaving together a street family wherein they feel relatively safe and know that others are going to help them find food, shelter, and a sense of belonging. Additionally, the street family provides a means of protection. Incapable of looking people in the eyes, Prince-Hughes found it difficult to bond with other homeless persons and to panhandle. She lived beneath staircases, with her sustenance consisting of food and drink she obtained from the garbage.²² When she was homeless and broke, she tried to talk her way into the local zoo, but to no avail.²³ She eventually landed a job as a dancer in a strip club.²⁴ No longer homeless, and with minimal expendable income, she pursued visiting the zoo, which changed the rest of her life.²⁵ After several visits and through a series of events, she landed a job at the zoo working with the gorillas.²⁶ With the help of co-workers and supervisors, she pursued a post-secondary education which eventually led to a Ph.D. in Anthropology.²⁷

²⁰ Prince-Hughes, 60.

²¹ Prince-Hughes, 63.

²² Prince-Hughes, 69-70.

²³ Prince-Hughes, 88.

²⁴ Prince-Hughes, 72.

²⁵ Prince-Hughes, 88.

²⁶ Prince-Hughes, 101.

²⁷ Prince-Hughes, 106-107.

Both of these individuals with AS have unique experiences in the world, thus they have different personalities. There is no ‘standard’ personality for the person with AS. Their personalities cannot be generalized, though as we will later see, some of their means of substitution are similar. Grandin is more overt and forthcoming in her account of interacting with other persons than is Prince-Hughes. Whether one attributes the differences to genetics or experiences growing up, their personalities are as unique as those attributed to the neurotypical. Because of this uniqueness and the diversity of experiences, the similarities of the phenomenon of substitution between the two women becomes all the more interesting and meaningful. The phenomenon becomes the clue to the ‘seat of illness’, rather than providing a way for those who have a disability to act or react in a manner closer to neurotypical. Both women have found their means of substitution by way of animals. Though persons with AS are often ‘drawn out’ by animals, there is no norm.²⁸ Similarities can be found in the phenomenon of substitution, but there is no standard by which the person with AS proceeds to be-in-the-world.

The instances of the phenomenon of substitution described in this chapter from the accounts of both Grandin and Prince-Hughes, are by no means the summation of the substitution experienced by each woman. Rather, these are a few examples of similar substitution noted in their first person accounts. These examples point not only to the ‘seat of illness’, but also further the understanding of their embodiment. As previously discussed, embodiment in the world requires that the person occupy space.²⁹ The person is ‘in the world’. There are no bodies without

²⁸ *Zelan*, 49-53.

²⁹ Refer to Chapter 1, page 27.

consciousness, or consciousness without bodies. The body cannot be considered modularly, but as an integrated ‘whole’. The experience that one has of one’s body teaches a mode of existence which properly belongs neither to the in-itself, nor the for-itself, because the lived body is not a mechanism.³⁰ There is no hierarchical separation between mind and body. In other words, the mind does not control or direct the body. All parts of the body are segments of a cohesive fabric, woven together by interdependence.

These examples are pre-conscious, meaning that there is no cognitive thought or learning involved in the ‘substitution’. Although the experience of the phenomenon of substitution is pre-conscious, both women later analyze their experiences, thus moving from the pre-conscious towards cognitive conceptualization. The phenomenon of substitution is not static, but a dynamic phenomenon. We shall see that these substitutions open pathways to future substitutions, thus further enhancing the women’s experience of embodiment.

Both Grandin and Prince-Hughes describe their thought processes as “visual thinking”. This means that they think in pictures rather than words. Because Grandin thinks in pictures, words are like a second language to her. She translates both spoken and written words into full-colour movies, complete with sound that operates like a VCR tape in her head.³¹ Additionally, she sees the world in pictures and stores these images in her head as if it were a CD-ROM disc. When she recalls something she has learned, she replays the video in her imagination.³² The result is

³⁰ Madison, 24.

³¹ Grandin, 31.

³² Grandin, 24.

that every experience builds on the visual memories she carries from prior experiences. It is in this manner that her world continues to grow.³³

Persons who are neurotypical think with language in addition to pictures. The process of language thinking entails images that are converted into concepts that have been previously associated with the image.³⁴ For example, when looking at an arrangement of yellow long stem roses delivered for a birthday, the person who thinks with language would remember ‘yellow long stem roses’ as opposed to storing a mental image of the specific arrangement of ‘yellow long stem roses’ in vivid detail. Later, when remembering the occasion the flowers were delivered, this person would think of the ‘yellow long stem roses’ and perhaps afterwards summon a generalized image of what the flowers looked like. In some cases, without the words or concepts to describe the roses, there would be no memory, because the words are what is stored.³⁵ Once the roses have been identified, perhaps not even specifically, the verbal identification is what is remembered. To summon the image, one recalls the words ‘long stem yellow roses delivered on my birthday’, and the image appears of what generalized ‘long stem yellow roses’ would look like. In this manner, the memory goes from a verbal concept of roses, to the image of generalized ‘long stem yellow roses’. Persons who are neurotypical have the capacity to have visual memories. They tend to do so particularly in times of extreme stress. Post-traumatic stress disorder is an example of neurotypical visual memory. This disorder occurs

³³ Grandin, 40.

³⁴ Merleau-Ponty, PP, 174.

³⁵ Merleau-Ponty, PP, 177-178.

when the subject continuously relives horrifying experiences in the forms of intrusive thoughts, nightmares and flashbacks.³⁶

In some instances, the memories of persons who are neurotypical are stored as language. Should the object be one's first encounter of something, descriptive comparisons would be stored of the object as opposed to the specific image. From these descriptions, one conveys to another person what the image was or looked like. Important to this process is the taking up of others' thought through speech, the ability to think according to others that enriches our own thoughts and experiences. Words conveyed in lived experience are understood in the context of gestures and actions. Language conveys its own teaching and carries it's meaning into the listener's mind.³⁷ Speech is therefore a cultural institution, where commonplace utterances between persons translate into ready-made meanings with little effort.³⁸ It is through my body that I understand other persons, just as it is through my body that I perceive 'things'. The meaning of a gesture is 'understood' not behind it, but as intermingled with the structure of the world outlined by the gesture, taken up on my own account. What Merleau-Ponty terms 'verbal gesticulation', aims at a mental setting which is not given to everyone, and whose task it is to communicate it. Nature does not provide the means to accomplish this task, but culture does.³⁹ The meaning of a language is never fully translatable into another. Though a person may speak several languages, one remains the constant by which they live and think.⁴⁰

³⁶ Richard J. McNally, "Memory and Anxiety Disorders" Philosophical Transactions: Biological Sciences 352 Nov. 1997: 1755.

³⁷ Merleau-Ponty, PP, 179.

³⁸ Merleau-Ponty, PP, 184.

³⁹ Merleau-Ponty, PP, 186.

⁴⁰ Merleau-Ponty, PP, 187.

Conversely, Grandin and Prince-Hughes are visual thinkers, meaning that they see the image and store it in their memory with vivid detail. This could be equated to taking a snapshot of the specific floral arrangement, and storing it in one's memory. There is no conversion of the specific image to a generalized word concept. When persons with AS remember the floral arrangement, the specific image of the yellow long stem roses comes to mind with vivid details, such as the roses' fragrance or a brown spot located on the second rose to the left's third petal. After remembering the image, they can articulate a description of the specific flowers, but this is not necessary to remember them. Their memory proceeds from specific images to generalized concepts. The words are only necessary to convey the memory to other persons, because they cannot transmit the image of the flowers mentally. Additionally, the memory would exist without the words to describe the image. Cultural inflection is present in the memory when the person with AS need to convey the experience to another person. At this time, the memory has to be converted from a visual image to cultural dialogue. The cultural dialogue of the person with AS differs tremendously from that of a neurotypical verbal person because the initial image is not translated in language but is stored as an image. It is true that because the image stored is perspectival, and the objects within the image are related to Grandin's and Prince-Hughes' social culture, there is a respect in which their images are culturally constituted. In many respects, however, this constitution is minimally comparable to the cultural infusion located in verbal language or language memory.

At University, Grandin realized that some people were completely verbal thinkers. She had first suspected this when she read an article in a science magazine

about the development of 'tool use' in prehistoric humans. A scientist had speculated that humans had to develop language before they could develop tools. She thought this was ridiculous, but later realized that her thought processes were different from those of other persons. The difference is that she thinks in vividly detailed pictures while neurotypical persons think in a combination of words and vague, generalized pictures. She often becomes frustrated when a verbal thinker cannot understand something she is trying to express because they do not 'see' the picture that is crystal clear to her, they do not see the picture in her head.⁴¹

This frustration is also attributable to the lack of cultural information that can be conveyed within the initial stored mental image. For example, using your imagination, picture a mental snapshot picture of Bornholm, Denmark. This mental picture is an instantaneous still image. For the language-thinker, this exercise is frustrating because there are no further details such as whether there are cliffs or beaches in the photo. One may wonder if there are persons in the photo, leading to further inquiry as to what these persons are wearing or what activities they are engaged in. Are there houses or streets lined with cars or bicycles in the snapshot? All of these questions start from the position of relating where the viewer is located culturally to the cultural information conveyed by the snapshot or visual image. Through this cultural connection, one reaches understanding. The person with AS stores the image without culturally locating it within language. Later, when conveying the experience of being on the island of Bornholm, the person with AS is frustrated that the same snapshot is not available mentally to the other person. If the image could somehow be transmitted mentally without words, the experience would

⁴¹ Grandin, 27.

be less frustrating for the person with AS because the ‘neurotypical’ person could extract the cultural information that they needed to understand the concept. In lieu of this ability, the person with AS must translate the snapshot into language in order to describe the image. The person with AS must attempt to relate important cultural details to the listener, so that the gist will be conveyed appropriately and the meaning will be completely understood. Because of this singular translation, Prince-Hughes describes AS as a culture of ‘one’.⁴²

The manner in which Grandin and Prince-Hughes determine social interaction with other persons is not a natural cultural process, but relies upon cognitive methodology. As previously discussed, this methodology does not rely upon ‘verbal gesticulation’, the means by which ‘language thought’ is conveyed verbally to another within the context of location and bodily gesture. Prince-Hughes describes this methodology as an attempt by persons with AS to pass as neurotypical. These persons often use their profound intellectual capacities and acute memory skills to learn coping strategies that help them to blend in.⁴³ Though persons with AS are thought incapable of looking at situations from the vantage point of another person, as was previously discussed in Baron-Cohen’s ‘mindblindness theory’, Grandin uses visualization and logic to solve problems, thus determining how people will react.⁴⁴ Over time, she has built up a tremendous library of memories from past experiences, TV, movies and newspapers that assist her in avoiding social embarrassments that could be caused by her autistic mannerisms. She uses her ‘library’ to guide her decision process in a totally logical manner. When she was younger, her logical

⁴² Prince-Hughes, 7.

⁴³ Prince-Hughes, 30.

⁴⁴ Grandin, 136.

decisions were often wrong because they were based on insufficient data. Now, these decisions are more accurate because her memory contains more information.⁴⁵ She can speed-search her CD-ROM memory of videotapes and make a decision quickly.⁴⁶ Unlike the neurotypical person, whose memories will fade into generalized concepts or perhaps even be forgotten entirely with time, Grandin's memory consisting of specific movie images with explicit detail will not fade. No matter whether the memory is good or bad, it is never forgotten.

Grandin was not aware until recently that most people rely upon emotional cues in their interactions. These emotional cues again are based upon contextual language based cultural thinking. She attended a lecture where a social scientist said that humans do not think like computers. Later, she told the scientist that her thought patterns resemble computing, so much so that she is able to explain her thought processes step by step. Grandin was shocked that the scientist was unable to describe how her thoughts and emotions were joined, because the factual information and emotions were combined into a seamless whole. Due to this revelation, Grandin was able to understand how people allow emotions to distort the facts, while her mind can always keep factual information and emotions separate.⁴⁷ This disjointedness between information and emotion speaks to the lack of culture present in the thinking process.

For the verbal thinker, whose thoughts and emotions are combined into a seamless whole, it is hard to conceptualize that the two can be kept separate. When considering the 'facts', one cannot help but acknowledge the location of oneself, or

⁴⁵ Grandin and Scariano, 137.

⁴⁶ Grandin and Scariano, 138.

⁴⁷ Grandin and Scariano, 137-138.

the person remembering the experience. The ‘location of the person’ would include a range of diversities, such as cultures, gender, socio-economic status or religion. If Grandin and several other persons witnessed a bank robbery, several factors outside of what ‘really’ happened could come into play. For persons who are neurotypical, the factual is influenced by the emotional. This would be beneficial when observing someone acting nervously or with anger prior to the robbery. The ‘sense’ that something is amiss often prevents or helps one cope with situations out of the ordinary. Grandin, on the other hand, is able to precisely remember what occurred with minimal prejudice, though it is acknowledged that Grandin does view the event from a certain perspective by which to construct her mental ‘snapshot’. This perspective does not account for the emotions that often accompany and assist one through trying or dangerous situations.

Grandin credits her visualization abilities with helping her to understand the animals she works with. Every design problem she has solved, started with her ability to visualize and see the world in pictures.⁴⁸ As a consultant, before she attempts any construction, she test-runs the equipment in her imagination. She visualizes her designs in every possible situation, including different sizes and breeds of cattle and variable weather conditions. By doing this, she is able to correct mistakes prior to construction.⁴⁹ She describes doing an equipment simulation in her imagination as being similar to viewing the simulation on videotape in her mind. She can observe the image from any angle, placing herself above or below the equipment and rotating it at the same time. She does not require graphics programs to produce three-

⁴⁸ Grandin, 20.

⁴⁹ Grandin, 20-21.

dimensional design simulations. Grandin is capable of doing it faster and more accurately in her head.⁵⁰

When Grandin is resolving a problem at a feedlot, the first thing she does is put herself inside the cattle's head, thus looking out through their eyes. Because their eyes are on the sides of their heads, cattle have wide-angle vision, so it is like walking through the facility with a wide-angle video camera. She finds that it is a matter of observing the small details that made a big difference.⁵¹ She does not assimilate information that most people take for granted, but instead, stores information in her head as if it were on a CD-ROM disc.⁵² Early in her career she got into arguments with other engineers at meatpacking plants. She could not imagine their inability to see mistakes in blueprint diagrams prior to the equipment being installed. She now realizes that it was not inability but a lack of visualization skills. They literally were not able to see with their minds.⁵³

Grandin has observed that those who excel as verbal thinkers in combination with poor visualization skills are most likely to deny animals the capacity of thought. For them, 'one must be verbal to have the capacity to think'. She also observes that these persons excel at verbal or sequential thinking activities but are unable to read blueprints.⁵⁴ She defends her experience as a visual thinker, in addition to the possibility of animals having the capacity to think. In her experience thought does not have to be verbal or sequential to be real. She is not suggesting that animals, neurotypical humans and persons with AS think alike. What she does believe is that

⁵⁰ Grandin, 21.

⁵¹ Grandin, 22.

⁵² Grandin, 24.

⁵³ Grandin, 26.

⁵⁴ Grandin and Scariano, 159-160.

recognizing different capacities and methods of thinking can lead to greater connectedness and understanding.⁵⁵

Prince-Hughes is also a visual thinker. In the course of her research of gorillas, her visualization skills enable her to excel at keeping records, making keen observations, descriptively communicating information, and memorizing events with intricate perfection.⁵⁶ Because she is a visual thinker, she meticulously records everything she sees. She is able to capture details others would not have noticed. Most observers have to stop frequently to look down at the data sheets and write their observations. Prince-Hughes is able to write without looking away from the gorillas, because she can accurately envision the form she is filling out.⁵⁷ “When I close my eyes, I can play it (memories) back like a three-dimensional tape, replete with the smells, the sensations, and my feelings about it. I have always had this photographic or eidetic memory, and all of my many recollections of the past have a quality that makes them seem almost more real than the present. They allow me to tell the story of my life.”⁵⁸

Both authors attribute visual thinking for their attention to detail, granular focus, and ability to precisely store information. Their visual thinking is multi-dimensional, allowing for storage, retrieval, and use at a later date. Because of this substitution, memories are not fuzzy, one-dimensional, or non-specific. Instead, they are intricate, specific, and ingrained with granular details. This granular focus moves the thought from granular detail to the generalized concepts, rather than the

⁵⁵ Grandin, 164.

⁵⁶ Prince-Hughes, 103-104.

⁵⁷ Prince-Hughes, 105.

⁵⁸ Prince-Hughes, 16.

generalized concept comprising the details. Grandin and Prince-Hughes in the course of their work are not looking empirically to satisfy the criteria of a concept, rather they are looking with granular focus and later conceptualizing about the observation to either document or describe the occurrence for those who think verbally. If both women thought as neurotypical persons do, the results of their occupations would be more typical. It is because of their substitution that they are successful in their endeavours.

As previously discussed, tactile stimulation is painful for the person with AS. Touch by humans, fabric, or any other object on the skin, causes the person to recoil and stiffen their body. Unfortunately, being-in-the-world is nearly impossible without touch. This sensation is one of the ways that the neurotypical person knows the boundaries of their bodies. The person with AS pre-consciously finds a way to exist in this tactile world by means of substitution. This means is not an attempt to replicate the norm, but to tolerate existence while being-in-the-world.

In elementary school, Grandin was known for her unique and creative abilities, though she also had a reputation of being erratic and throwing temper tantrums.⁵⁹ Regardless of her creative talents, she lacked the ability to get along with people.⁶⁰ At puberty she was desperate for relief from what she terms “stage fright” nerves. During these episodes, she alternated between erratic, impulsive behaviour and withdrawal into her inner world where stimulation could be avoided. There were two choices in coping with the nerve problem: she could retreat into her inner world and minimize the stimulation, or she could fight fire with fire – find the most

⁵⁹ Grandin and Scariano, 35.

⁶⁰ Grandin and Scariano, 59.

stimulating activity and “go for it”.⁶¹ Sometimes intense activities such as galloping on a horse or strenuous physical labour temporarily alleviated these attacks.⁶²

Additionally, she hated to be hugged. She wanted to experience the good feeling of being hugged, but it was just too overwhelming. “It was like a great, all-engulfing tidal wave of stimulation, and I reacted like a wild animal. Being touched triggered flight; it flipped my circuit breaker. I was overloaded and would have to escape, often by jerking away suddenly.” At the same time, she wanted physical contact, but found herself withdrawing. She describes this experience as if a sliding glass door separated her from the world of love and human understanding.⁶³ She notes that it is easier to be touched if she initiates it.⁶⁴ She often became overwhelmed with many simultaneous stimuli and reacted with temper tantrums, screaming and other unacceptable behaviours.

She found that self-stimulating behaviours helped to calm her over aroused central nervous system.⁶⁵ She calls herself a ‘pressure seeker’. Pre-consciously, her body sought bodily pressure as a means to calm her. When she was six, she would wrap herself up in blankets and get under sofa cushions, because the pressure was relaxing. At night she tucked in the sheets and blankets tightly and slid in under them.⁶⁶ She daydreamed in elementary school of constructing a device that would apply pressure to her body.⁶⁷ This design was sort of a coffin-like box. She imagined crawling in the open end. Once inside, she would lay on her back, inflate a

⁶¹ Grandin and Scariano, 85.

⁶² Grandin and Scariano, 70.

⁶³ Grandin and Scariano, 28.

⁶⁴ Grandin, 62.

⁶⁵ Grandin and Scariano, 21.

⁶⁶ Grandin and Scariano, 29.

⁶⁷ Grandin and Scariano, 62-63.

plastic lining which would hold her tightly but ever so gently. Most importantly, even in her imagination, she controlled the amount of pressure exerted by the plastic lining.⁶⁸ The advantage of a comfort device would be that she could control the amount of stimuli. She could satisfy her craving for contact comfort without flooding her senses with massive amounts of input that her nervous system could not tolerate.⁶⁹

During a summer break from school, she visited her Aunt's ranch in Arizona. She noticed that cattle relaxed when they were pressed between the side panels of the cattle squeeze chute. This was her first connection between those cows and herself. After a panic attack, she got inside the squeeze chute at her Aunt's ranch. She asked her Aunt to press the chute's sides against her and close the head restraint bars around her neck. At first there were a few moments of sheer panic as she stiffened up and tried to pull away from the pressure. Five seconds later she felt a wave of relaxation, and about thirty minutes later she asked her Aunt to release her. For about an hour afterward she felt calm and serene.⁷⁰ Her constant anxiety had diminished. This was the first time she ever felt really comfortable in her own skin.⁷¹ She later copied the design and built the first human squeeze machine out of plywood panels when she returned to school.⁷² Though over the years she has improved the design of her machine, when she was younger, people tried to convince her she should give up the machine. She was torn between two opposing forces: she wanted to please her

⁶⁸ Grandin and Scariano, 30.

⁶⁹ Grandin and Scariano, 50.

⁷⁰ Grandin and Scariano, 60.

⁷¹ It is important to acknowledge that at all times Grandin maintains control of her situation while using the 'squeeze machine'. Maintaining control allows her to experience the tactile stimulation she has avoided without reservation. This is not comparable to previously described techniques of Classical Psychology where the child with AS is forced to be held against their will in an effort to demonstrate the value of human contact. In this instance, the person with AS has no control, and is placed in the position of an unwilling participant.

⁷² Grandin, 63.

mother and the school authorities by giving up the machine, but her biology craved the process that resulted in the calming effect.⁷³

As her nervous system learned to tolerate the soothing pressure from the squeeze machine, she discovered that the comforting feeling made her a kinder and gentler person. This points to the dynamic nature of the phenomenon of substitution. The original substitution was pressure for the panic attacks. As a further benefit or substitution, Grandin discovered that the machine helped her to experience feelings towards other persons. It was difficult for her to understand the idea of kindness until she had been soothed herself. From the time she started using her squeeze machine, she understood that the feeling it gave her was one that she needed to cultivate toward other people. It was clear that the pleasurable feelings were those associated with love for other people.⁷⁴ She found that the relaxing feeling of being held washed negative thoughts away. She believes that the brain needs to receive comforting sensory input. In her words, “[g]entle touching teaches kindness.”⁷⁵

Although the squeeze chute was just a mechanical device, for Temple Grandin, it broke through her barrier of tactile defensiveness, so that she felt the love and concern of people. She was not able to express her feelings about herself and others. “It was as if an accordion folding door had been shoved back revealing my emotions.”⁷⁶ Feeling the soothing pressure from the squeeze machine slowly enabled her to start having feelings of empathy. For Grandin, the squeeze chute gave the feeling of being held, cuddled and gently cradled in a Mother’s arms. She was finally

⁷³ Grandin, 64.

⁷⁴ Grandin, 82.

⁷⁵ Grandin, 83.

⁷⁶ Grandin, 92.

able to endure brief physical contacts, like a pat on the shoulder or a handshake.⁷⁷ As a child she wished for a small cubby hole about three feet wide and three feet high. The squeeze chute she ultimately built was that secret, coveted cubby hole of childhood dreams.⁷⁸

The squeeze machine is the cognitive result of Grandin's body seeking to relieve and endure tactile stimulation. The substitution of climbing under sofa cushions and tightly tucking in sheets, resulted in the analysis that culminated in the making of the machine. Because of the dynamic nature of the phenomenon of substitution, other substitutions occurred after the machine is built. Though the machine is produced for a specific purpose, Grandin discovers the 'language of pressure' that helps her understand the complexity of feelings, even though initially, the machine was designed to relieve and endure tactile stimulation.

Similar to Grandin, as a child, Prince-Hughes did not like being held. When people tried to cuddle her she would stiffen and push away from them, feeling as though she was drowning.⁷⁹ Prince-Hughes felt 'special' while she rode the Round-Up ride at the fair. It made her feel content and relaxed, as well as joyful. The Round-Up ride utilizes centrifugal force to press the riders into a spinning chamber. She compares the sensations of relaxation and well-being experienced on the ride as her version of Grandin's squeeze machine.⁸⁰ She did not consciously enter the ride for the purpose of tactile relief, but by being on the ride, her body made a connection.

⁷⁷ Grandin, 101.

⁷⁸ Grandin, 92.

⁷⁹ Prince-Hughes, 16.

⁸⁰ Prince-Hughes, 45.

Seeking this pressure as a child, she would hide underneath unwashed clothing piles. While shopping with her mother, she would hide inside clothing racks where the dark colours and lack of light would help to calm her down.⁸¹ Her sensitivity to pressure is apparent in that she wears the same clothes over and over and dislikes washing her favourite pair of pants. She often washes and dries her pants at night so that she can retrieve them from the dryer immediately in the morning. She can actually feel her shoulders lose their tension as she slides her pants on.⁸²

The phenomenon of substitution is similar for both authors, yet there are differences. Prince-Hughes' and Grandin' body crave pressure to relieve tactile stimulation. While Grandin continues to have this desire, thus the construction of her squeeze machine, Prince-Hughes' requirement for relief is not as apparent from her first person account, especially after her encounter with the gorillas. It could be surmised that while both women have a similar phenomenon of substitution, but that the degree to which the substitution is needed can differ at various points in the life, and by different personalities. This does not diminish either of their means of substitution, but points to a difference in experiences and personalities of those with AS.

For both authors, the experience with animals is important for their connection to and learning about the socialized human world. Though many persons with AS find their way into the social world of humans by means of animals, this means of substitution cannot be viewed as a norm. In some instances persons who are neurotypical have special relationships with animals. The difference though is that

⁸¹ Prince-Hughes, 21.

⁸² Prince-Hughes, 218.

most persons who are neurotypical find their way into the human social world by relationships with other persons. Grandin's connection with animals goes back to the time when she first realized that the squeeze machine could help calm her anxiety. She claims to have been seeing the world from their (the cow's) point of view ever since.⁸³ "When I put myself in a cow's place, I really have to be that cow and not a person in a cow costume. I use my visual thinking skills to simulate what an animal would see and hear in a given situation. I place myself inside its body and imagine what it experiences. It is the ultimate virtual reality system, but I also draw on the empathetic feelings of gentleness and kindness. I have to follow the cattle's rules of behaviour. I also have to imagine what experiencing the world through the cow's sensory system is like."⁸⁴

As previously discussed, Grandin experiences discomfort being touched by humans, although her touching a steer's back made an unexpected tactile connection that changed her life forever.

I always thought about cattle intellectually until I started touching them. I was able to remain the neutral scientist until I placed my hands on them at the Swift plant and feedlots in 1974. When I pressed my hand against the side of a steer, I could feel whether he was nervous, angry, or relaxed. The cattle flinched unless I firmly put my hand on them, but then touching had a calming effect. Sometimes touching the cattle relaxed them, but it always brought me closer to the reality of their being. When I gave an injection, I always placed my hand on the animal's back, which had a calming effect on me. This calmness seemed to be reciprocal, because when I was calm, the cattle remained calm.⁸⁵

Grandin's touch connected her with the being of the animal in a way that human touch, even from her mother, could not. Something occurred in that moment

⁸³ Grandin, 142.

⁸⁴ Grandin, 143.

⁸⁵ Grandin, 83.

that opened up reciprocity of understanding between animal and human. Grandin for the first time comprehended reciprocal emotion. She discovered that her touch calmed the animal, in addition to the experience calming her. As a result, Grandin experienced emotions she had not felt from other humans. It is a moment of connectivity with the world she had never experienced before.

Prince-Hughes had a similar experience while working at her job with the gorillas. She poignantly writes about her experience:

They (the gorillas) had just had their annual medical checkups, and several samples collected that morning had to be cataloged and delivered to the zoo's animal health department. Because the keeper was in a hurry and much needed to be done, she asked me to feed some strawberries to Congo, a huge silverback weighing over five hundred pounds who had recently joined us at the zoo. She showed me very carefully how to lay the strawberries on the edge of the windowsill, between the bars, and how to keep my hands back so that he did not grab my finger. When she left to deliver the samples, I looked through the bars at the massive gorilla sitting in his corner. I could smell his body, tart and pungently sweet, drawing me in and wrapping around my own body. As I shook the tin bowl full of strawberries, he rose up like a great dark wave of spirit and flesh and hoisted himself up to sit on the ledge under the sill. He was a foot away from me. I was overwhelmed by his sheer size and presence. It was not an unpleasant feeling; it was like lying in the silent dark in the arms of a mighty and compassionate god. He grunted and nodded his head at the bowl, raising his eyebrows to ask me to share the berries with him. I began placing the berries between the bars, careful to stay ahead of him as he quickly flicked them into his hand and popped them into his wide mouth. Congo was quite fond of the berries and ate them as fast as I could place them between the bars. Intent on my task and compelled to put the berries in the same repeating order between each of the bars, I didn't realize he was catching up to me and eating the berries faster than I was putting them down. And then, in an instant, it happened. We put our fingers down at the same time. His gigantic finger, black and leathery, soft and warm, rested on my own digit. We stared at our fingers and neither of us moved. Finally, I looked up into his soft brown eyes. They were dancing with surprise. We stayed like that for what seemed like a long time, our fingers joining five million years of evolution and reaching out to bridge the gap of generations traveled. He leaned forward slowly until he was six inches from my face. I could feel his breath. His steady eyes peered into my soul, and he did not blink. I leaned forward and rested my forehead on the bars. Our faces were almost touching. We stared at each other, our fingers still together. I relaxed into his touch and

his nearness. This is what it is, I thought. This is what it means to love and be loved. This is what it is to touch and look at another person and feel its meaning. This is what it is to not be alone in the vastness of space we hurtle through among the coldness and the dying. This is what it is to live, I thought.⁸⁶

Both Grandin and Prince-Hughes experienced a connection with animals that had not been possible with the humans they encountered. This connection provided the means for both women to encounter emotion and feeling from animals. Later this experience helped the women to open up to the social human world. This ‘touch’ cannot be compared to usual instances of a neurotypical person touching an animal. The touch emanates from the being of a specific person with AS, and is met by the being of an animal. It is also critical that the phenomenon of substitution not be considered modularly, but only as it relates to the whole person. Both women ‘touched’ the animals, but their entire beings were involved, not just their tactile sensations. The experience emanated throughout their entire bodies, to connect their being with that of the animal. But most important, the connection between human and animal was met with reciprocity.

There are ‘body boundary’ issues that often confuse or frustrate the person with AS, as well as their relatives. Prince-Hughes describes how her parents were often frustrated with her because she would ‘walk through or ‘look through’ people as if they were not there. She finds that this phenomenon had more to do with her unawareness of where her body began and ended, than with awareness of other people’s boundaries. “It was as if I understood the edges of other people – disjointed as they sometimes were – but I myself had no such edges.”⁸⁷ This is comparable to

⁸⁶ Prince-Hughes, 5-6.

⁸⁷ Prince-Hughes, 29.

Merleau-Ponty's example of the phantom limb. Persons who lose their arm, yet still have feeling for the missing limb are said to have a 'phantom limb'. Previously, psychological diagnosis of these patients suggested that the patient was refusing to recognize the existence of the disability, therefore the refusal caused them to think they were experiencing feeling in the missing limb. But, as Merleau-Ponty points out, this ignores the physiological aspect. A physiological explanation would conclude that the severance of the nerves to the brain would end the phenomenon of the phantom limb. What Merleau-Ponty demonstrates with this example is how the psychic determining factors and the physiological conditions gear into each other. He relates this to the case of substitutions, phenomena that lie outside the alternatives of psychic and physiological, of final and mechanistic causes.⁸⁸

Prince-Hughes description of living without 'edges' is almost inconceivable for the neurotypical person who protectively defines their bodily space. This boundlessness also explains the melding of one being into another, exploring their reciprocity. Grandin describes, how she through a machine 'touches' the cattle.

If I thought about the levers, I got all mixed up and pushed them the wrong way. I had to force myself to relax and just allow the restrainer to become part of my body, while completely forgetting about the levers. As each animal entered, I concentrated on moving the apparatus slowly and gently so as not to scare him. I watched his reactions so that I applied only enough pressure to hold him snugly. Excessive pressure would cause discomfort. If his ears were laid back against his head or he struggled, I know I had squeezed him too hard. Animals are very sensitive to hydraulic equipment. They feel the smallest movement of the control levers. Through the machine I reached out and held the animal. When I held his head in the yoke, I imagined placing my hands on his forehead and under his chin and gently easing him into position. Body boundaries seemed to disappear, and I had no awareness of pushing the levers. The rear pusher gate and head yoke become an extension of my hands. People with autism sometimes have body boundary problems. They are unable to judge by feel where their body ends and the chair they are sitting on

⁸⁸ Merleau-Ponty, PP, 76-77.

or the object they are holding begins, much like what happens when a person loses a limb but still experiences the feeling of the limb being there. In this case, the parts of the apparatus that held the animal felt as if they were a continuation of my own body, similar to the phantom limb effect.⁸⁹

It is this boundless melding that is attributed neither to the physical nor the psychological that Merleau-Ponty finds contributes to the phenomenon of substitution. The neurotypical person's boundaries are defined in many instances culturally. This cultural definition is rigidly superimposed, to keep others at bay. It is this uninhibited melding that can inform neurotypical persons about their own embodiment, because how much one concedes the possibility of melding speaks to how rigidly their personal boundaries are set. Boundaries such as those that separate the neurotypical from the pathological cannot occur with this melding. Though one knows that they are a specific entity, the melding with others makes the definition of what they are, blurred. Without definition, boundaries that define the hierarchy of the neurotypical cannot stand. This is the 'third term', that someplace in the middle between the Cartesian split of mind and body that Merleau-Ponty finds critical to the understanding of embodiment.

Finally, both women attribute their work and connection with animals in helping them to 'feel'. Learning from this connection, they find that the relationships they have with humans are easier, because to some extent, they now 'understand'. The experience with the animals is not threatening.⁹⁰ The gaze of animals does not cause either woman to turn away, nor cause embarrassment. Each is comfortable being a person with AS when relating to the animals during their experience in the world. Because of this comfort, each woman understands more about herself. This

⁸⁹ Grandin, 41.

⁹⁰ Merleau-Ponty, PP, 361.

understanding leads to more social success within the 'neurotypical world'. Both women compare autism versus the neurotypical world, as looking through or being trapped behind a window. Windows symbolize the feeling of disconnection from other people.⁹¹ Additionally, the correlation of windows can be related to the substitution phenomenon. The window serves as a tactile barrier, allowing the person on the other side to see, but not touch. This is the state for the person with AS. The substitution phenomenon is their way of getting past or going around this window.

Prince Hughes describes the autistic community as an emergent culture, much like the deaf community. Previously separated and defined by the medical community, persons with AS are finding their voice. Far from the pathology that the medical community has portrayed, the phenomenon of substitution reveals a manner of being in the world that is much more vivid than the experience of the 'neurotypical' person. Because persons with AS experience sensitivity to tactile stimulation, they seek to neutralize a portion of these sensations. What they sense is remarkable, when compared to what the neurotypical person misses. "We individuals, with our cultures of one, are building a culture of many."⁹²

The next chapter will examine embodiment with focus upon the 'gaze'. By studying how the phenomenon of substitution facilitates our understanding of embodiment for both those with AS and the 'neurotypical', the understanding of embodiment in a phenomenal world will show difference and similarities between those with AS and those who are neurotypical. Most importantly though, what this

⁹¹ Grandin, 36-37.

⁹² Prince-Hughes, 7.

understanding will show is the connection, or lack thereof , between those who are neurotypical and those who are placed in the position of ‘passing’ for neurotypical.

CHAPTER THREE

GAZE AVOIDANCE AND THE PHENOMENON OF SUBSTITUTION

I loved to watch the people I cared about, in the house I loved, doing the normal tasks that make a life: my grandfather would be cooking at the stove, my grandmother washing dishes in the sink, my sister playing in the living room, my uncle, mother, and father talking about politics. When they didn't see me, when we were divided by walls and glass, I could let my love for them pour out freely in the safety of the dark.¹

The psychological analysis of the experiences of persons with AS, such as the one offered by Baron-Cohen, differs remarkably from the first person accounts offered by Grandin and Prince-Hughes. As previously discussed, this difference occurs because in many instances Psychology relies upon the observation of persons with AS, often within a clinical environment. From these observations, psychologists formulate theories about the experiences of persons with AS. Key elements of their experiences, such as thinking in visual images as opposed to language, are overlooked by this method because those with AS are considered to be incapable of knowing their own experience-in-the-world. In contrast, these overlooked experiences become highlighted within the philosophical context of Merleau-Ponty's phenomenon of substitution. First person accounts are critical to this philosophy² because there is no consciousness without a body, or body without consciousness, in the experience of the world. By focusing on the pre-cognitive substitution within these experiences, one is able to understand the disability or person's difference within the context of their conscious embodied being in-the-world.

The first person accounts of Grandin and Prince-Hughes relate their conscious embodied experience. Their experience of being in-the-world differs because their

¹ Prince-Hughes, 22.

² Merleau-Ponty, CD, 75.

bodies are sensory disabled. Because of this sensory disability, they experience pain from tactile stimulation. Since the body locates its boundaries by means of tactile stimulation, the pain is impossible to avoid. Therefore, Grandin and Prince-Hughes' bodies seek to experience the phenomenal world by way of the phenomenon of substitution. Until their bodies discover the means by which to 'turn down' the barrage of sensation, persons with AS retreat inside of themselves, away from the sensations that the phenomenal world presents. Interestingly, the literal Chinese translation for autism is "self-close".³ The person with AS temporarily retreats until through the phenomenon of substitution, they experience a way of being in the world by which they can tolerate the influx of sensation. As related by the first person accounts of Grandin and Prince-Hughes, as the person matures the body finds increasingly better substitutions by which existence in the world is tolerable. This is not a cognitive choice but a directive of the body knowing.

The importance of the body, and the possibility of the body 'knowing' have been the source of contention. Descartes' philosophy separated the mind from the body. The mind was given priority over the body, as the centre where reason, the soul, and cognitive experience resided. The brain as the command centre presides over all body functions and motility.⁴ The 'I' resided in the mind, while the body was relegated to machine.⁵ Cartesian bodily experience becomes a chain of processes that are initiated and interpreted by the brain. Because of this priority, the mind or consciousness controlled the body. Therefore, one makes their way in the world by

³ Stephen Shore, Beyond the Wall – Personal Experiences with Autism and Asperger Syndrome (Shawnee Mission, KS: Autism Asperger Publishing Co., 2003) 103.

⁴ Merleau-Ponty, PP, 75-76.

⁵ Drew Leder, The Absent Body (Chicago, IL: The University of Chicago Press, 1990) 76.

means of conscious thought. Maintaining priority of the mind over the body results in the disembodied thinker. This thinker is controlled by an immaterial consciousness that leaves the body upon death. The body's purpose as machine is to feed information to the brain where consciousness resides. Additionally, the mobile body takes the consciousness where it wants to go.⁶ From this proposed process of interactions between the body and brain, the conscious mind constitutes the world. The body supplies the data by which the mind reflectively discovers the world. The concepts of pre-reflective or pre-cognitive do not occur within the Cartesian schema.

Merleau-Ponty disagreed with the Cartesian split of mind and body. He cited instances, such as the phantom limb⁷, that could not be described by explanations that were either exclusively physiological or psychological. If either explanation were correct, the body's feeling of the limb would disappear once it was amputated. After removal there would be no way for the limb to communicate with the mind or the mind to communicate with the severed limb because the nerves as the pathway of communication had been destroyed. An additional example is found in the visceral body. One forgets the visceral body, or inner organs because these organs seem to function unnoticed. This is because the visceral body operates without direction from the conscious mind. In most instances the visceral body disappears from our thoughts. These organs, such as the heart or liver do not rise to the forefront unless there is immanent illness.⁸ For example, one does not consciously direct their body to digest their dinner. Both the phantom limb and the visceral body point to the 'third

⁶ Leder, 125.

⁷ See Chapter 2, Pg 63 for discussion of the phantom limb argument.

⁸ Leder, 40-44.

term'⁹ that Merleau-Ponty sought to find. This 'third term' is somewhere between the physiological and the psychological that is missed in Descartes' theory. It is the place where consciousness resides.

Instead of splitting the body and mind apart, Merleau-Ponty stressed the importance of the body and mind as one interwoven conscious embodiment in the phenomenal world. Additionally, the phenomenal world is initially constituted pre-reflectively rather than reflectively. The body is capable of 'knowing', as demonstrated by Grandin's spinning to alleviate body discomfort, or in the instance of blinking. Additionally, the body cannot be an object or mechanism because it is the means by which we experience the phenomenal world. This is not to say that the mind experiences through the body because this would again imply a split. Instead, the mind and body are interwoven by their phenomenal experience of the world. It is with the sensory and motor capabilities of the body, that one encounters the phenomenal world.¹⁰

To understand Grandin and Prince-Hughes' disability of the sensory organs, it is necessary to have a better insight as to how the body of the neurotypical experiences the sensory world. With this insight of how the neurotypical body senses versus how the person with AS senses, the pain experienced from tactile stimulation will become clear. When one reflects upon the body perceiving and experiencing the world, one usually conceptualizes the surface of the body. This is because the sensory organs such as the nose, eyes, skin, taste buds and ears lie closer to or on the surface of our bodies, opening to the phenomenal world. In many respects the surface body is

⁹ See Chapter 1, Pg. 34-35 for discussion of the 'third term'.

¹⁰ Leder, 5.

freed up to experience the phenomenal world by the processes of the visceral body.¹¹

As the visceral body digests food and pumps blood, the surface body where sensation occurs is open to the possibility of experience in the phenomenal world.

The neurotypical body pre-reflectively perceives through these sense organs, though the organ does not share the perception it discloses. One does not ‘hear their ears’, or ‘taste their taste buds’.¹² In most instances, sensory organs recede to the background when they are not used as the focus of intention. Therefore, the senses work in tandem with each other pre-reflectively, so that they recede to the background, or proceed to the foreground as necessary.¹³ For example, when listening to music, the sensory focus is not on what one is seeing, but what one is hearing. Should one see something interesting while listening to the music, the hearing recedes and the visual experience becomes the foreground. In doing so, the senses do not interfere with the focus of intention.¹⁴ Senses recede or come to the foreground as necessary without interrupting each other. For the neurotypical, this sensory process exists at birth as part of their bodily functions. This sensory process is part of the neurotypical body ‘knowing’.

The person with AS does not experience this process of sensory recession to the background or progression to the foreground. Instead, the senses remain in the foreground. Not only do the senses remain in the foreground, the senses intensify what they are perceiving. For example, a pleasantly audible voice would be perceived as a loud shouting voice by the person with AS. Without the ability of sensory

¹¹ Leder, 47-48.

¹² Leder, 14-15.

¹³ Leder, 25.

¹⁴ Leder, 25-26.

recession, the bodies of persons with AS have minimal chance of pre-cognitively focusing their sensory intention. This remains the case until their bodies discover by means of the phenomenon of substitution, the manner by which to cause sensory information to recede to a level that is comfortable. By means of the substitution, the body of the person with AS is able to pre-cognitively focus upon the sensory information that will yield understanding. The world of possibilities, without this focus, becomes a barrage of sensory information that inundates the person with AS to the point of pain.

In contrast, those who are neurotypical experience pain in situations of sensory intensification. In this experience, the intensification of a portion of the body that previously yielded little sensory information suddenly makes itself known.¹⁵ In this manner, the recession to the background or progression to the foreground of the senses is disrupted. For example, one experiences this intensification when one suddenly smells a foul odor, receives a hard pinch to the skin's surface, or has the volume turned up unexpectedly when wearing earphones. The pain experienced by the sensory organs in these examples cause the neurotypical person to recoil in an attempt to remove themselves from the situation. The pain that is experienced from this sensory intensification is temporary.¹⁶ While the intention of the neurotypical is only momentarily disrupted, the person with AS experiences incessant disruption of their sensory intention without relief. There is no way for the person with AS to recoil from the experience of sensory intensification. Instead, persons with AS recede

¹⁵ Leder, 71.

¹⁶ Leder, 72.

within themselves until their bodies find the means by which they can experience the world without the pain of sensory overload.

Pain is a signal by which the body calls for immediate attention to a specific bodily part. The pain becomes the forefront of experience by the body. Therefore, one's focus is immediately reoriented when experiencing pain.¹⁷ For persons who are neurotypical pain is experienced as a temporary disruption in sensory flow. On the other hand, pain that is chronic has an 'episodic nature' because of circumstantial changes in intensity.¹⁸ This episodic nature is based upon a scale of what was experienced prior to the onset of the chronic pain. The neurotypical once lived without pain, therefore there is an experienced past by which one gauges their pain response.

The person with AS lives with incessant pain because of their hypersensitivity. Their pain becomes a way of being-in-the-world.¹⁹ From the moment that their existence experienced sensation, the person with AS was in pain. Unlike the neurotypical person, for whom pain disrupts sensory intentions but never leads to a complete collapse of the world, the focus of the person with AS cannot help but be on the pain of sensation. In contrast, for persons who are neurotypical pain throws them into an unaccustomed aspect of the world. Prior to the pain, their visceral bodies free up their sensory bodies to experience the phenomenal world as a field of possibilities. Leder describes the process of experiencing pain as follows: "[o]ne is no longer 'dispersed' out there in a world of possibilities, but suddenly 'congealed' within their

¹⁷ Leder, 73.

¹⁸ Leder, 73-74.

¹⁹ Leder, 73.

body.”²⁰ For the neurotypical, one’s attention is drawn back to one’s body with the focus often upon a specific body part.

The person with AS, while born into the phenomenal world is focused first upon their bodies in an effort to relieve the pain from the barrage of sensation. For the person with AS, there is no foreground or background of sensational data. Unlike the person who is neurotypical, the person with AS has no recollection of a painless past.²¹ There is no memory of how the body once felt, when sensory data flowed to and fro wherein the embodied being was able to pre-cognitively focus seeking understanding. Their bodies seek to attain the balance experienced by the neurotypical, by the to and fro of sensation. Pain, or the reduction thereof, becomes the focus for the person with AS when seeking this balance. Instead of experiencing the phenomenal world of possibilities, they are self-preoccupied with their condition.²² The focus of their world is reducing the pain of sensation, in addition to experiencing the ‘field of possibilities’ offered by the phenomenal world.

By understanding the embodied differences of persons with AS as opposed to those who are neurotypical, the importance of focusing upon the phenomenon of substitution is apparent. The bodies of persons with AS find these substitutions in an attempt to reduce the barrage of sensational data. In this manner, the substitutions cannot be considered haphazard, or an attempt to be neurotypical. They seek these substitutions to be able to pre-cognitively focus upon the phenomenal world. One of the most frequently cited substitutions by persons with AS, is avoidance of the human ‘gaze’.

²⁰ Leder, 75.

²¹ Leder, 76.

²² Leder, 81.

Grandin and Prince-Hughes describe the ‘gaze’ of a human upon their person as intolerable. Grandin describes this avoidance as ‘poor eye contact’ or the ‘darting eyes’ characteristic of most autistic children.²³ As previously discussed, Prince-Hughes while homeless was unable to panhandle because she could not look into another persons’ face.²⁴ When considering the embodied sensory overload experienced by persons with AS, it is unclear which sensory organ is overloaded by the human ‘gaze’. Presumably, the ‘gaze’ can only touch metaphorically, because it is experienced from a distance rather than the surface of one’s body. Because persons with AS avoid the ‘gaze’ in the same manner as they avoid tactile stimulation, the person who ‘gazes’ ‘sees’, and additionally is capable of touch.

To understand the avoidance of the ‘gaze’, one must discern the perceivable differences in experience between those who are neurotypical and those with AS. These perceivable differences interrupt the reciprocity of the ‘gaze’, thus resulting in avoidance. In most cases, the reciprocity of the ‘gaze’ begins with the commonality of outward appearance and general life experiences. At the most basic level, both persons are human, with human bodies, exhibiting human behaviour. By seeing each other, persons reciprocally view each other’s humanity. In other words, we see, sense and identify each other as humans.

In most cases, it is through the perception of another person that one’s cultural world is verified. The primary cultural object is the body. The body of the ‘other’ person is the vehicle that forms one’s own behaviour.²⁵ In other words, I see myself in the body and actions of others. Though the body is the primary cultural object, one

²³ Grandin and Scariano, 18.

²⁴ Prince-Hughes, 69-70.

²⁵ Merleau-Ponty, PP, 348.

specific body does not make all consciousness of a society known. Cultural society does not consist of two or even three persons. Cultural society is a co-existence, involving an indefinite number of consciousnesses.²⁶ The ‘understanding’ comprising a cultural world is a compilation of consciousness from the past and present. In this way, persons come to understand these infinite consciousness as a cohesive unified consciousness of ‘one’.

The understanding of other consciousnesses requires responses that are comparable and identifiable with one’s own. We often seek specific correlations recognizable between each other’s physical behaviour and mental processes.²⁷ Locating one who is similar to ourselves gives us comfort. We anticipate a correlation between their experiences in the world and our own. This correlation provides validation for beliefs and boundaries one has of our being-in-the-world.

The basis for ‘mutual understanding’ begins from the perspective of similarity.²⁸ This reciprocity incorporates what Merleau-Ponty terms ‘corporeal schema’. This schema is the overlapping of one experiencing their body, and their experience of other bodies.²⁹ In other words, the body takes up space in the phenomenal world. We experience the phenomenal world by way of the body. In order to perceive my body as my own, I must perceive it in relation to other objects. I locate my body as ‘here’ and the object or being ‘there’. In this manner, I recognize that I am separate from the object or being. Without corporeal schema there would be nothing to focus upon because one would not know the boundaries of their bodies.

²⁶ Merleau-Ponty, PP, 349.

²⁷ Merleau-Ponty, PP, 352.

²⁸ Dillon, 113.

²⁹ Dillon, 122.

The corporeal schema locates one to ‘gaze’ upon another, because one realizes that they are separate from the ‘other’.

Persons with AS are not alone in their discomfort from the ‘gaze’. In certain situations, the reciprocal ‘gaze’ between neurotypical persons can elicit the avoidance response. Although in most cases, the response is a cultural mandate rather than the body ‘knowing’. When considering the ‘gaze’, one realizes that persons usually do not like to reveal or put their bodies on display for others. When it is necessary to display the body, one often does so nervously or with hesitation. Though in some instances this display is done with an intention to fascinate the ‘other’.³⁰ Most often, the ‘gaze’ leaves the person feeling exposed, somewhat defenceless.

Additionally, the ‘gaze’ has cultural implications, especially when considering class or social status. For example, during traditional Samoan ceremonial greetings, the ‘gaze’ becomes a reciprocal activity wherein each party gathers information about the other. In this context, the ‘gaze’ serves as a ‘negotiation process’, at the end of which persons find themselves situated in social hierarchies. In most instances, Samoans withdraw rather than seek the reciprocal ‘gaze’. This could be attributed to the ancient symbolic Polynesian taboo against “directly looking at high chiefs or royal personages for fear of danger emanating from their ancestral power”.³¹ Similarly, the ‘gaze’ in Western culture is rarely viewed as passive. In most instances, it is viewed as the gendered ‘male gaze’. Though the ‘gaze’ is identified as

³⁰ Merleau-Ponty, PP, 166.

³¹ Alessandro Duranti, “Language and Bodies in Social Space: Samoan Ceremonial Greetings”, *American Anthropologist* 94 Sept. 1992: 657.

male, in most cases it is applicable to western propertied white males.³² The ‘male gaze’, when cast upon persons who are marginalized because of their gender, race, culture, or socioeconomic class, is said to result in objectification. In the previous examples of cultural status and gender, the avoidance of the ‘gaze’ is cognitive, and non-comparable to the avoidance response demonstrated by persons with AS.

Baron-Cohen explains the avoidance of the ‘gaze’ in mechanical terms. He proposes that the human infant possesses an “Eye-Direction-Detector” (EDD).³³ The human infant’s brain is ‘pre wired’ with EDD by the evolutionary process.³⁴ There are three basic functions of EDD: to detect presence of eyes or eye-like stimuli, compute whether eyes are directed toward it or toward something else, and it allows infants to attribute a perceptual state to another organism.³⁵ In cases of neurotypical infants, the ‘gaze’ triggers physiological arousal of pleasure. This is considered to be a positive experience because the eye contact triggers smiling.³⁶

Baron-Cohen stresses that the key element of social abnormalities for persons with AS is the lack of normal eye contact resulting in lack of neurotypical social awareness – thus demonstrating inappropriate social behaviour. He describes persons with AS as experiencing aloneness, one-sided interaction and having the inability to join a social group.³⁷ He notes that EDD may very well be intact for persons with AS because they can detect when persons in a photograph are looking at them, they can interpret eye direction in terms of someone seeing something, and can work out what

³² Mary Devereaux, “Oppressive Texts, Resisting Readers and the Gendered Spectator: The New Aesthetics”, *The Journal of Aesthetics and Art Criticism* 48 Autumn 1990: 337.

³³ Baron-Cohen, 38.

³⁴ Baron-Cohen, 60.

³⁵ Baron-Cohen, 38-39.

³⁶ Baron-Cohen, 42.

³⁷ Baron-Cohen, 62-63.

someone else is looking at when asked to do so. Though EDD may be somewhat intact, he acknowledges this may only be a 'geometric understanding' of gaze direction.³⁸ Therefore, though EDD may be partially intact for the person with AS, it is damaged.

Baron-Cohen identifies one of the major problems for persons with AS occurs when verifying whether one's self and another agent are focused upon the same object or event.³⁹ In essence, persons with AS do not show the main forms of joint attention behaviour.⁴⁰ Though the EDD is not mechanistically impaired, the key function of providing the drive to establish what are shared interests between one's self and another persons is damaged. In essence, the person with AS does not attempt to get on "another person's wavelength".⁴¹ What is missing from this explanation is the embodied consciousness of the person with AS. The avoidance of the 'gaze' is described in mechanistic terms, without reference to the pain persons with AS describe in their first person accounts. It is also interesting to note that in assessing whether EDD is intact for persons with AS, a photograph of a human is used rather than the experience of the 'gaze' from another human being. It is interesting to note that while the avoidance of the 'gaze' is inherent to the behaviour of children within the autistic spectrum, the embodied reciprocal gaze is not addressed. In essence, the theory does not recognize the embodiment of persons with AS nor the embodiment of the person 'gazing'. Therefore, according to Baron-Cohen, the embodied reciprocal

³⁸ Baron-Cohen, 64.

³⁹ Baron-Cohen, 64.

⁴⁰ Baron-Cohen, 66.

⁴¹ Baron-Cohen, 66.

gaze is equivalent to the experience of looking at a photograph. In essence, object viewing object.

To further understand the results of to the theory proposed by Baron-Cohen, Merleau-Ponty's Phenomenology would propose an embodied response for why persons with AS avoid the 'gaze' of humans that is particularly insightful. Implicit to this philosophical description is the notion of 'whole' embodiment experience that Baron-Cohen overlooks. Within this 'whole' experience the privilege of interpersonal interaction is absent, therefore interaction with beings other than human can be recognized. When the 'whole' of the experience is taken into account, the specific issues concerning interpersonal relationships are more clearly defined.

Easily, one could surmise that persons with AS avoid the gaze because those who are neurotypical gaze upon them in judgment. One could construe the potential of judgment as being so 'harsh' that the person with AS looks away. This conclusion would be in error though, because one cannot account for the fact that autistic newborn infants who have yet to understand the concept of judgment also avoid the 'gaze'. Patricia Stacey describes her newborn infant son, later diagnosed autistic, as 'looking' past her the first moment that she saw him. He avoided her 'gaze', whether he was located in the bassinet or nursing.⁴² The reaction of most infants is to study the faces of the persons who are caring for them. Baron-Cohen describes instances of breastfeeding, wherein mother and neurotypical infant are seemingly 'locked' in a reciprocal gaze for upwards to thirty minutes.⁴³

⁴² Stacey, 4.

⁴³ Baron-Cohen, 39.

Merleau-Ponty's analysis would point to the mistake of assessing the avoidance of the gaze to judgment. To assess this avoidance to judgment one would be making the critical mistake of failing to recognize the transference of 'corporeal schema'. This transference requires reciprocity from embodied beings. By disregarding the reciprocity of the 'gaze', the description of judgment results in a one-sided, incomplete understanding of the 'look'.⁴⁴ It is by gazing at other persons that we see ourselves.⁴⁵ In other words, somewhat like a mirror, the participant sees themselves reflected in the gaze of the other embodied being. Additionally, the 'gaze' reveals that the person is visible in the world. This is necessary for the person reciprocating the 'gaze' to perceive them. "If the other is really the other, that is, a 'For Itself' in the strong sense that I am for myself, he must never be so before my eyes; it is necessary that this other 'For Itself' never fall under my look, it is necessary that there be no perception of an other, it is necessary that the other be my negation or my destruction."⁴⁶ In other words, to ascribe this avoidance to judgment one overlooks the mutual embodiment of both beings in-the-world.

The 'gaze is described by Merleau-Ponty as follows: "...once received, one knows all there is to know, and of which in the end there is nothing to say. The 'gaze' is 'caught' and fixed upon, so that the eyes can penetrate the person."⁴⁷ There is a sense that the persons involved perceptively capture each other in an attempt to probe each other's being. He uses phrases such as 'envelops' or 'palpates' to describe

⁴⁴ Dillon, 127.

⁴⁵ Merleau-Ponty, VI, 143.

⁴⁶ Merleau-Ponty, VI, 127.

⁴⁷ Merleau-Ponty, VI, 131.

the 'gaze'.⁴⁸ These phrases are usually attributed to tactile stimulation rather than vision. Most importantly, the reciprocity of the 'gaze' uncovers what he terms, "...a pre-established harmony between persons". This harmony is founded upon the familiarity of shared humanity. In essence, it is the familiarity of a knowing person 'knowing' them.⁴⁹

Merleau-Ponty stresses the reciprocity of the 'gaze' between two embodied beings. The embodied being lives as both immanent subject and transcendent object. One is 'seen' because one's subjectivity is incarnate in the body viewed.⁵⁰ What the reciprocity of the 'gaze' implies is reversibility. Merleau-Ponty elaborates:

He who sees cannot possess the visible unless he is possessed by it, unless he is *of it*, unless, by principle, according to what is required by the 'articulation' of the look with the things, he is one of the visibles, capable, by a singular reversal, of seeing them – he who is one of them.⁵¹

In other words, there is a requirement of embodiment for both participants. Both persons have to be-in-the-world to be visible to the other. Reversibility is best described by the touching of one's own hands. As the right hand touches the left hand, the right hand is subject or 'one that touches', while at the same time is object or 'that which is touched'. The same is true for the left hand. This reversibility can only occur if my right hand feels the left hand from within, while it is also sensitive to tactile stimulation of the touch of the left hand to the right hand's surface.⁵²

Grandin and Prince-Hughes' avoidance of the 'gaze' is not because of judgment, or cultural taboo. This avoidance is attributable to the hyper-sensitivity

⁴⁸ Merleau-Ponty, VI, 133.

⁴⁹ Merleau-Ponty, VI, 133.

⁵⁰ Dillon, 128.

⁵¹ Merleau-Ponty, VI, 134-135.

⁵² Merleau-Ponty, VI, 133.

from the palpation of the 'gaze' by humans. The reciprocity of the 'gaze' is pre-cognitively physically halted by those with AS. 'Darting eyes', has been cited by contemporary Psychology as a response caused by the inability to look into another person's face. Phenomenologically understood, this response or means of avoidance is a substitution. It is only by considering the 'gaze' as 'tactile palpation', that the meaning of the avoidance by persons with AS becomes clear. Persons with AS attempt to remove themselves from the 'communion' of the 'gaze'. They seek to avoid the 'palpation' that occurs in the exchange of the corporeal schema.

Though they attempt to avoid the palpation, they also seek to avoid the mirroring of themselves in the 'gaze' of the other person. With heightened sensitivity, the reflection of themselves in the gaze of others is staggering. To illustrate, imagine looking into a mirror that is reflecting bright sunshine. One wants to turn away because the visual sensation is more than the eye can bear. Additionally, it hurts. If the gaze of another mirrors ourselves, the sensations that the already over sensitized person with AS would experience would be magnified by two. The intensity of this magnification would cause pain, thus resulting in the person with AS avoiding the 'gaze' of humans. This avoidance occurs until their bodies find a means of substitution that controls the magnification process.

Though the person with AS attempts to avoid the 'gaze', their avoidance is never completely successful. Because the person with AS is an embodied consciousness in-the-world, they remain in an intersubjective environment. They only succeed in pre-cognitively refusing to acknowledge or reciprocate the communication of the 'gaze'. Similarly, when one sleeps, one succeeds in becoming an unseeing and

almost unthinking mass. To a certain extent, one is still conscious of the sensations surrounding them. Often those asleep will awaken with the sense of someone else in the room. In this instance the sleeper is never completely isolated within himself, therefore never totally cut off from the intersubjective world.⁵³ The cognitive inability to look into another person's face, such as in the instance of the Samoan ceremonial greeting, is not merely a refusal to communicate, it is a refusal of the 'other'.⁵⁴ The person with AS though avoids pre-cognitively. Therefore, the refusal is not of the other person as an entity or personality, but is attributed to the magnification of sensory overload.

Despite the physical pain incurred by the contact and interaction with humans, persons with AS must co-exist in the same human cultural world. Persons with AS seek to blend in with this cultural world. This 'blending' is not an attempt of unification but resembles how they recede inside themselves until the body finds the means of substitution. In this way, persons with AS go unnoticed and become invisible within neurotypical cultural society. Persons with AS must replicate the behaviour of the neurotypical in order to conform to societal standards. Prince-Hughes describes this as "[u]sing their profound intellectual capacities and acute memory skills to learn coping strategies that help them blend in."⁵⁵ Existing in the same social culture as those who are neurotypical requires that persons with AS become adept in 'appearing' to experience a similar conscious embodiment. Prince-Hughes is relieved that she is successful in appearing neurotypical, but wishes that

⁵³ Merleau-Ponty, PP, 163-164.

⁵⁴ Merleau-Ponty, PP, 164.

⁵⁵ Prince-Hughes, 30.

people knew how hard she works at it. “There is much that goes on internally that ‘other’ persons do not see.”⁵⁶

Both Grandin and Prince-Hughes appear to function the same as a normal person, but inwardly perceive themselves differently because of their sensory disability. In their first person accounts, both authors identify with *Star Trek* characters. In the storyline, these characters are categorized as alien or non-human, though they coexist with humans in a human cultural environment. Grandin identifies herself with “Mr. Spock”, because she relates to his way of thinking.⁵⁷ Prince-Hughes relates to the character “Seven” from the *Star Trek Voyager* series.⁵⁸ Both characters could be described as flawlessly logical while lacking in emotion. Though the characters are intellectually concise and efficient, they remain ‘alien’ to humans. “Mr. Spock” is Vulcan, while “Seven” is an assimilated Borg. Though the characters co-exist with humans, they are considered separate beings unto themselves. In other words, they do not attempt to become ‘like’ humans. As alien, they are described as part human and part machine.⁵⁹ Though Grandin and Prince-Hughes perceive themselves as ‘alien’, they are classified and must function as neurotypical humans to exist within the neurotypical cultural society.⁶⁰

Though the person with AS attempts to ‘pass’ for neurotypical, the neurotypical person does not find familiarity in the ‘gaze’ from persons with AS. Instead, the person with AS is described as having a ‘scarecrow quality’ – thin, loose,

⁵⁶ Prince-Hughes, 2.

⁵⁷ Grandin, 131.

⁵⁸ Prince-Hughes, 84.

⁵⁹ Prince-Hughes, 84.

⁶⁰ Prince-Hughes, 7.

and vacant.⁶¹ Initially, the person appears to be similar, because their outward appearance is much like those who are neurotypical. The ‘gaze’ seeks the familiarity of the humanity of the other. Regardless, the body knows that there is a difference. Similar to their bodies stiffening to resist being touched, held or cuddled,⁶² the ‘gaze’ is avoided as the corporeal schema attempts to palpate. The reciprocal ‘gaze’ does not reveal familiarity. The person with AS that the neurotypical person ‘gazes’ upon looks through them as if they were not there. The look is described as ‘empty’, as though no one is there.⁶³ This consciousness, so alien from that of the neurotypical person, fails to be comparable or identifiable with one’s own.

The consciousness of the neurotypical, encountering the ‘alien’ consciousness, attempts to envelope the alien consciousness although substantial difference is encountered. The ‘knowing’ of the ‘gaze’ is not perceived. The experience is not one of reciprocity, but alienation for both parties. The bodies sense the difference. One body responds with ‘darting eyes’, the person with AS looks away in avoidance. The other body continues to ‘gaze’, in objectification with cognitive theorizing. With difference perceived, boundaries become defined. The encounter with the consciousness of the person with AS causes the person who is neurotypical to be less self assured. This is because the neurotypical does not find the familiarity of ‘one’ consciousness. In contrast, the person with AS continues to disassociate themselves from the consciousness of the ‘one’, because this consciousness is perceptively unfamiliar.

⁶¹ Stacy, 4.

⁶² Grandin, 43.

⁶³ Prince-Hughes, 29.

This encounter occurs instantaneously. As far as one has sensory capabilities, such as a visual, auditory and tactile perceptual fields, the body is already in communication with ‘others’, assuming shared humanity. Merleau-Ponty describes perception of the other as an area where a vortex forms. One is drawn, and so to speak, sucked in. The other body ceases to be a mere fragment of the world. The body becomes the theatre of a certain process of elaboration, a certain ‘view’ of the world.⁶⁴ In contrast, perceiving the ‘alien’ consciousness of the person with AS confuses and frustrates one who is accustomed to familiarity in their environment. One is not ‘sucked in’, but repelled due to the lack of reciprocity between beings.

Grandin and Prince-Hughes find the human ‘gaze’ intolerable but the animal ‘gaze’ invites reciprocity. In most instances, the ‘gaze’ of animals does not elicit the avoidance response from either persons with AS or those who are neurotypical because this ‘gaze’ is considered non-threatening.⁶⁵ Both women experience more from the ‘gaze’ of animals than is usually experienced by those who are neurotypical. For Grandin and Prince-Hughes, the ‘gaze’ of an animal elicits the reciprocal response that is usually experienced with humans in the course of the reciprocal human ‘gaze’.

They (the gorillas) didn’t look at one another, and they didn’t look at me. Instead, they looked at *everything*. They were so subtle and steady that I felt like I was watching them, free from acting, free from the oppression that comes with brash and bold sound, the blinding stares and uncomfortable closeness that mark the talk of human people. In contrast, these captive people spoke softly, their bodies poetic, their faces and dance poetic, spinning conversations out of the moisture and perfume, out of the ground and out of the past. They were like me. And so we spent that first day, looking without looking, understanding without speaking.⁶⁶

⁶⁴ Merleau-Ponty, PP, 353.

⁶⁵ Merleau-Ponty, PP, 361.

⁶⁶ Prince-Hughes, 93.

From the reciprocal interaction with gorillas, Prince-Hughes learns the nuances of communication with humans.⁶⁷ There is a ‘language’ communicated between Prince-Hughes and the gorillas she encounters that is *non-verbal*. Corporal schema is exchanged because the ‘gaze’ reveals the gorilla in one location, while Prince-Hughes is in another. The exchange of corporal schema causes no discomfort for either the gorilla or Prince-Hughes. Neither the gorilla, nor Prince-Hughes is reduced to ‘object’, but remain as respected non-hierarchical embodied consciousnesses that communicate with each other.

Similarly, Grandin purposely seeks to view the world of the cow, as the cow does. She puts herself in the cow’s place, being the cow as opposed to a person in a cow costume.⁶⁸ She attributes her success in working with animals to the fact that she realizes there are many similarities between animal behaviour and autistic behaviour.⁶⁹ In both examples, the animal and the human attain reciprocity in their communication. This reciprocity is non-hierarchical and non-threatening for either participant. Therefore, a balance is struck between embodied beings, one that is impossible between the person with AS and the neurotypical person.

Merleau-Ponty does not specifically address this issue for persons with AS. I do not know if he was aware of persons with autism, let alone those who were highly functional. His only comment is that most persons find the ‘gaze’ of animals non-threatening. Because of the previous discussion of the embodied experiences of

⁶⁷ Prince-Hughes, 104.

⁶⁸ Grandin, 143.

⁶⁹ Grandin, 147.

persons with AS, and the phenomenon of substitution, one can speculate why the animal's gaze is reciprocated while the human's gaze is avoided.

First and foremost, the recognition of the 'gaze' as tactile palpation is crucial. The 'gaze' is not just a look, it is a touch. Additionally, the mirroring that occurs within the reciprocal embodied gaze during the exchange of the corporal schema would heighten the sensational response for persons with AS to a pitch that would be unbearable. Their senses are already experiencing overload prior to the inception of the gaze. The attempt to reciprocate would magnify this sensational pitch by an order of magnitude.

Persons with AS do learn to tolerate some instances of the 'gaze'. For instance, Grandin is a university instructor in addition to having a successful consulting career. Prince-Hughes, also a university instructor, has a neurotypical lesbian significant other⁷⁰ and is co-mother to a neurotypical son who was conceived by artificial insemination.⁷¹ In the course of their careers and personal lives there has to have been some means of substitution that allowed their bodies to reduce the 'frequency' of the 'gaze' of humans. This substitution lies in the difference between a glance and the 'gaze'.

The glance and the 'gaze' are perceptively experienced differently. Because the 'gaze' palpates, the eye contact or 'touch' is considered intimate. Therefore the 'gaze' becomes an interpersonal encounter between reciprocating persons. The glance is experienced differently from the 'gaze'. Heron illustrates this difference by

⁷⁰ Prince-Hughes, 152-156.

⁷¹ Prince-Hughes, 187-195.

the comparison between a photograph and a portrait.⁷² The photograph mechanically reproduces the physical form of the subject's features. On the other hand, a good portrait "results in the dynamic incarnation of presence."⁷³ This comparison is particularly applicable to the visual thinking inherent to persons with AS. The 'glance' by the person with AS captures and stores visual information. Grandin and Prince-Hughes store visual memories equivalent to snapshots. The 'darting eyes' are equivalent to 'sneaking a glance'. Until the body finds the substitution to make the 'gaze' bearable, as Grandin and Prince-Hughes found with animals, the visual information is stored by way of the 'glance'. The sensory intensification experienced by the 'glance' is minimal in comparison to the 'gaze'.

Additionally, persons with AS tolerate the 'gaze' of animals because they can glance at the animal, and look away. In this manner, their bodies regulate the sensory intensification. In contrast, persons who are neurotypical anticipate finding the familiarity of humanity in those reciprocating the 'gaze'. When they do not find the familiarity they seek, they continue to probe with the 'gaze', seeking to understand the 'alien consciousness'. By Prince-Hughes account, part of her joy of being with the gorillas is that "[t]hey(the gorillas) didn't look at one another, and they didn't look at me. Instead they looked everywhere... And so we spent the first day, looking without looking, understanding without speaking."⁷⁴ When experiencing the reciprocity of the 'gaze' with animals, it is all right to look away, should the experience become far too intense for the sensations. This experience is not one of

⁷² John Heron, "The Phenomenology of Social Encounter: The Gaze", Philosophy and Phenomenological Research 31 Dec. 1970: 243.

⁷³ Heron, 249.

⁷⁴ Prince-Hughes, 93.

interpersonal social judgment. For the avoidance to be judgment the experience would be cognitive. The ‘glance’ as pre-cognitively experienced by persons with AS, is a substitution used by the body to learn about the phenomenal world. Using the substitution of glancing with animals, Grandin and Prince-Hughes eventually built a bodily understanding to extend the ‘gaze’, and to understand the social nuances of neurotypical interaction.

Grandin and Prince-Hughes’ bodies seek to find the means of the phenomenon of substitution. In the same manner that the substitution facilitates persons to be in the phenomenal world, the substitution can also restrict the flow of data from the phenomenal world to the person with AS causing a filtering effect. As previously discussed, the reason that the ‘squeeze machine’ alleviated a portion of Grandin’s tactile sensitivity was because her body could ‘control’ the pressure. Her body let her know as a ‘pressure seeker’ what level of intensity was appropriate. If she were forced to bear a level of pressure, such as with a hug wherein she would not be released, the stimulation would be equated to intense pain because she could not escape. In much the same manner, when the ‘gaze’ results in excessive tactile stimulation, the body seeks an alternative by which to control the amount of sensational data. The ‘glance’, viewed as a means of substitution, is a method by which to record visual data, while at the same time restricting the sensory data flow.

The phenomenon of substitution is possible within the phenomenal experience of all humans. The substitutions used by the bodies of those who are disabled enlighten those who are neurotypical to facets of their own embodiment. The classification of ‘neurotypical’ is a constructed category. Each person that would fall

within the classification of 'neurotypical' has their own personal idiosyncrasies. For example, when writing my body desires fresh air and quiet solitude. In contrast, my teenage daughter's body desires blasting music and the stale air inherent to keeping one's bedroom door and windows shut. By examining what might be attributed to these sensational idiosyncrasies, persons who are classified as neurotypical understand more about their own embodiment within the phenomenal world. In other words, the substitution that adjusts sensational data does not only apply to those with AS, but is also applicable to those who are neurotypical

The importance of the phenomenological concept of the phenomenon of substitution should become apparent not only for those with AS, but other persons with disabilities. Often, when psychologists theorize about the experience of persons with AS, they do so from the position of assuming that understanding starts from the experience of the neurotypical. One cannot adequately understand the experience of those with AS, without entering their embodied experience seeking to understand their means by which to experience the world. Each phenomenon of substitution incorporated by those with AS, speaks to a specific portion of their body's disability. By looking at these experiences from the position of the neurotypical, all that will be accomplished is establishing a more definitive boundary between those who are neurotypical, and those who are not. Persons who are neurotypical must seek understanding from the 'embodied' experience of those who exhibit difference, not based on their own experience, but by the experience as conveyed by disabled persons' first person accounts. In doing so, not only do the persons who are

neurotypical come to a better understanding of persons who are disabled, but they also understand their own embodiment more completely.

CONCLUSION

Persons with Asperger's Syndrome present a dilemma for those who maintain the philosophical primacy of disembodied human cognitive consciousness. They are human, yet they are unfamiliar to neurotypical 'humanity'. These persons have the capability to 'blend' in within society, but they consider themselves alien because they are different. Their sensory disability causes them to perceive the phenomenal world differently than those who are neurotypical. Because of the extremity of their sensory disability, by all neurotypical accounts they should not be able to function in the neurotypical world, let alone be successful. Despite this disability, they are able to make their way in the neurotypical cultural world almost invisibly. In many instances, this is without the assistance or knowledge of empirical science. In addition, Grandin and Prince-Hughes have been very successful in careers in fields that would normally be considered inaccessible to persons with neurological difficulties. Instead of considering their sensory disability to be a hindrance, they consider it to be an asset to be proud of. This disability has assisted them in their careers and contributions to the neurotypical cultural society.

Grandin and Prince-Hughes present a dilemma that Classical Psychology chooses to categorize as an anomaly. This is because persons who are autistic are incapable of self-knowledge. As more of these 'anomalies' write their first person accounts and congregate with other persons with AS, a unified voice is forming. What persons with AS are discovering is that they are not a voice of one, but a voice of many. Their newly formed cohesive community provides an identity that explains

processes that cannot be adequately explained by Classical Psychology. This flaw in the explanation made by Psychology is the result of overlooking the embodied experience of the person with AS.

The body 'knowing' is suspect within the discipline of Psychology. Because this 'knowing' cannot be empirically verified by inductive processes, tested in a clinical setting, or repeated upon demand, the 'knowledge' is often overlooked or disregarded. Additionally, 'body' knowledge is suspicious because it is specific to the person's body rather than to a constructed category. There is no standard by which to apply body 'knowledge' to the category of neurotypical. Though sometimes this knowledge is similarly experienced, the body 'knowledge' is specific to the person and their circumstances. The result of diminishing the body 'knowing' in psychological analysis is theories such as 'extreme male brains'. These theories are based upon the primacy of cognitive knowledge.

Though humans cannot escape the fact that they are embodied, Classical Psychology from the position of disembodied observer proposes theories such as the 'extreme male brain' to quantify the embodied experience of persons with AS. This is not to say that Classical Psychology is not useful in the analysis of autism, particularly in instances such as in classical autism wherein the person is institutionalized. Though in these instances it should be noted that the persons cannot speak for themselves. This does point out that by disregarding the first person accounts written by persons with AS, Psychology overlooks the person's embodied experience. In doing so, the psychologist can only speculate on what amounts to a

incomplete analysis. By not considering the embodied experience, the classical psychologist grasps at theoretical straws.

The fundamental dilemma that persons with AS present to both the fields of Philosophy and Classical Psychology is the body 'knowing' without cognitive resources. It is undeniable from the first person accounts of Grandin and Prince-Hughes that their bodies 'know'. It is through this 'knowing' that they successfully navigate their way in the phenomenal world of sensory perception. In some instances such as the 'darting eyes', the body senses and restricts sensory input from the phenomenal world as a protective measure to shield the person with AS from sensory pain. Grandin and Prince-Hughes convey numerous instances of the body 'knowing' in their first person accounts. Activities such as spinning, visual thinking, and 'pressure seeking' are instances where the body 'knew' prior to cognitive reflection how to regulate the sensational data, thus facilitating the person's sensational experience in the phenomenal world. This is the phenomenon of substitution, one of the instances where body 'knowledge' occurs.

The phenomenon of substitution is not restricted to those with disabilities, but is a capacity that can be experienced by neurotypical human beings. Most commonly the neurotypical person attributes these substitutions to an individual's preference, idiosyncrasies or individuality. But when one looks closer at the embodied experience, the underlying phenomenon of substitution is present. The substitution may not be as drastic or intense as those cited by Grandin and Prince-Hughes, but the substitutions exist as instances of the body 'knowing'. Because the phenomenon of substitution is experienced by persons who are neurotypical, the boundary established

by Classical Psychology that separates those who are neurotypical from those with AS becomes blurred. Therefore, the body ‘knowing’ is part of existing as a conscious embodied being in the phenomenal world.

The body ‘knowing’ has been diminished in lieu of the ‘mind knowing’. This was the result of the Cartesian split that separated ‘conscious knowledge’ from any possibility of ‘body knowledge’. For centuries philosophers have argued about the process by which information proceeds to the analysis of conscious thought. Animals and humans have been dissected in an attempt to demonstrate these processes by which the hope to discover the exclusivity of the ‘mind knowing’. Dissections of human parts were performed on corpses. As a result the embodied experience remained silent along with the person’s intentionality. In the course of these postulations the body was relegated to an ‘unknowing’ mechanism that was discarded upon death.

Grandin and Prince-Hughes disrupt these theories because there is no way to discount that their bodies ‘know’ prior to cognitive thought. When considering their contributions to neurotypical society, any attempt to categorize them as disabled seems inaccurate. Centuries of philosophical attempts to disregard the body ‘knowing’ cannot account for the embodied experience of persons with AS. It would be easier, philosophically, if persons with AS maintained a substandard existence to those who are neurotypical. In this way, the neurotypical could still maintain the primacy of cognitive thought processes. Instead, Grandin and Prince-Hughes have lives that are comparable to those who are neurotypical. Their lives include stimulating careers, fulfilling relationships, and the economic means by which to

support themselves without the assistance of the neurotypical community. In their work related fields they are peers to those who are neurotypical rather than the hierarchically displaced disabled.

The dilemma posed for those in Philosophy and Classical Psychology by persons with AS has yet to be fully realized. This is because persons with AS are only now finding their voice. As the number of ‘anomalies’ grow, the theories that give primacy to the exclusivity of the mind ‘knowing’ will increasingly attempt to marginalize the embodied experience of those with AS. This is already evident in the discounting of first person accounts because the author is deemed incapable of self-knowledge by the criteria described by Classical Psychology.

It cannot be discounted that because of the phenomenon of substitution, persons with AS can exist in the neurotypical society as one’s peer. They have the capability to ‘pass’ as neurotypical though they are categorized as persons with AS. Because of this peer relationship between persons with AS and those who are neurotypical, the primacy of cognitive thought will eventually have to yield to the embodied experience of the integrated body ‘knowing’.

Persons with AS enrich our experience as embodied beings because in many respects persons who are neurotypical have become de-sensitized to their body ‘knowing’. By examining the means by which persons with AS bodies seek substitutions to relieve sensory disability, persons who are neurotypical are reminded of their own embodied experience. In doing so, differences that once were used by those who are neurotypical to separate themselves from those who have AS become blurred. In the instance of substitution, these differences are only relevant by degrees

of sensory intensity. The 'degree' to which one is a conscious embodied being is irrelevant, because either one is conscious or one is object. By focusing upon embodiment rather than objectification, similarities rather than difference come to the forefront. It is by examining these similarities in each instance where one is categorized as 'disabled' or different that the knowledge of the embodied experience of the person who is neurotypical is enriched.

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