Critique of Sarcastic Reason

Critique of Sarcastic Reason is a philosophical dissertation that combines several different fields in order to pave the way for those studying sarcasm at the neurobiological, communicative and sociopolitical levels of analysis where sarcasm appears, respectively, through associated brain activity, between two or more individuals with higher level metabeliefs, and as a method by which political, religious and other social ideologies are attacked (i.e., one form of "biting sarcasm"). The academic disciplines involved in Critique of Sarcastic Reason include social cognitive and developmental psychology, neuroscience, critical theory, modern and contemporary philosophy of mind, evolutionary biology, logic, metaphysics and epistemology. Sarcasm is argued to only function at the highest levels of metacognition, and sarcasm occurs within social situations during which there are tendencies for two or more people to form desires and disgusts directly related to beliefs about beliefs. Sarcasm is compared to deception and is argued to be best analyzed as either spontaneous or rehearsed.



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Critique of Sarcastic Reason

The Epistemology of the Cognitive Neurological Ability Called "Theory-of-Mind" and Deceptive Reasoning



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Critique of Sarcastic Reason:

The Epistemology of the Cognitive Neurological Ability Called "Theory-of-Mind" and Deceptive Reasoning

Dissertation for the Faculty of Philosophy at Sofia University

For the degree of Doctorate in Philosophy (PhD.)

PhD. Candidate: William Allen Brant III



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Preface to the Priority of the Problem of Sarcastic Reason

During my first year of graduate school at Texas State University I held an internship, funded by the Vice President's office, at the behavioral neuroendocrinology laboratory at the University of Texas at San Antonio Science Center where we studied hormonal affects on the brains and sexual and aggressive behaviors of mice. I had previously held a position as a laboratory instructor for comparative vertebrate anatomy while I measured the cranial capacities of birds and crocodilians with my supervisor, Dr. Samuel Tarsitano.

During the spring semester at TSU in 2004 I taught experimental psychology as a teaching assistant. Later that same year I was granted a Fulbright scholarship to study at the Johannes Gutenberg Universität in Mainz, Germany. Previously I had attained a scholarship to study in Valladolid, Spain at the Universitas de Castellae, and I studied psychoanalysis at the University of Kent in Canterbury, England with Prof. Dr. Timothy Hulsey, the dean of the Honors College at Virginia Commonwealth University.

I spent an academic year of graduate studies at St. Andrews University in St. Andrews, Scotland and the University of Stirling, completing a Postgraduate Diploma. At St. Andrews University I was a control subject in an experiment that assessed the differences amongst control subjects and those with Asperger' syndrome and autism. In January 2007 I moved to Bulgaria to work on my doctorate at Sofia University after achieving a Master of Philosophy. During eighteen months of graduate studies in Sofia, I became increasingly interested in the type of reasoning involved with sarcasm, which I had heard quite often within the UK.

Research on my master's thesis about color perception, and my conclusion that

the contradistinction between color realism and anti-realism is in relation to a "misrepresentation of subject and object," allowed me to develop new insights about philosophy of perception and cognitive neuroscience, which allow a greater contribution to my current research over a type of perception that eludes all academics, namely, the perceptions that allow one to attribute appropriate mental states (e.g., beliefs and desires) to others called "Theory of Mind."

Two years of teaching at the high school level abroad, one academic year at the Schloß Gymnasium am Kurfürstlichen in Mainz and one year at the Lebanese School in Sofia, Bulgaria, have enabled me to evaluate some of the scientific research in my class rooms concerning sarcasm, and sarcasm research has become increasingly important over the last decade concerning the acquisition of the Theory of Mind in which one attributes intentions and thoughts to others and predicts their behaviors on the basis of these abilities. Working with young children and teenagers as a teacher and a sports coach has given me the opportunity to analyze and test children during the time period of development in which there are gross increases in their hormonal levels, significant physical and behavioral changes, and the ability to recognize sarcasm without a cue or signal is instantiated.

Fortunately, I have been able to test some of the research about which I was originally skeptical. I was able to do this at an Arabic school, which schools many trilingual children from two until eighteen years old. My assessment of the research I present in this dissertation is generally consistent with my prior observations with children between 5 and 18 years of age. I am currently a lecturer in the philosophy department at Texas State University in San Marcos, Texas for both an introductory

courses and a course concerning the history of philosophy since 1600.

I share these facts about myself and my experiences with you because I believe that it gives a greater insight into the directions of research into which I have partaken. My approach to the subjects of sarcastic reasoning as a type of deceptive reasoning, a linguistic tool for cultural and political ideology critique, Theory of Mind, philosophy and science is greatly influenced by my background within the sciences, teaching multilingual students and my travels and experiences abroad with various cultures.

Preliminary Investigation of the Problems Concerning a Critique of Sarcastic Reason

Within the first few pages of Martin Heidegger's magnum opus *Sein und Zeit* (1927) it is thoroughly explicated that throughout the history of philosophy, especially from Aristotle and Augustine of Hippo to Thomas Aquinas, there have been three prejudices regarding the ontological concept of "Being" as being that which is either "indefinable or indescribable" (i.e., "undefinierbar"), the "most general concept" (i.e., "allgemeiner Begriff"), or "natural or a matter of course" (i.e., "Selbstverständlichkeit" or what is already understood to oneself). Likewise, there are prejudices that coincide with the concept of sarcasm.

1: The **first prejudice** regarding sarcasm is that in relation to cognition it is the "lowest form of wit." Witticism, on the contrary, shall be illustrated within this dissertation to include sarcasm as amongst the highest levels of cognition referred to as "social cognition," namely, involving beliefs about beliefs about beliefs and desires as well.

- 2: The **second prejudice** concerning sarcasm is that in respect to morality it is the "lowest form of wit" (i.e., it is unethical to use or practice during conversations with people, and so it is morally low and base). A thorough investigation dispels this other interpretation of "lowest form of wit," to the extent that sarcasm is illustrated to have practical and moral uses within medical fields and political realms, for instance.
- 3: The **third prejudice** views sarcasm as philosophically insignificant, conversationally oriented and overall unimportant or uninteresting. Thus, the final aim of this dissertation is to illustrate that sarcastic reason deserves a critical analysis as an incredibly sophisticated species of reasoning that may exceed the importance of pure or practical reason (Kant, 1781; 1787; 1788), instrumental reason (Horkheimer, 1947), or cynical reason (e.g., Sloterdijk, (1987) analyzed Diogenes' kynicism and other cynics). For this purpose sarcasm must be shown to function as an important political, economic or ideological form of social reasoning that continues to affect societies.

Social Cognitive Psychology, Neuroscience and Sarcasm

Within roughly 130 years of the history of psychology as a science, a developing branch called social cognitive psychology has fairly recently begun to study what can best be described as the "expression and recognition of sarcasm." Studies have included neurological analyses that compare the brains of patients with different types of damage who lack the ability to recognize sarcasm to those who are able to recognize sarcasm, despite the presence of brain injuries and in comparison to healthy subjects too.

Moreover, the range of scientists who study sarcasm are quite diverse, including those

¹ The right hemisphere's ventromedial prefrontal cortex appears requisite to many researchers for the context to be recognized as well as sarcasm (Shamay-Tsoory, Tomer & Aharon-Peretz, 2005).

who are experts within the fields of learning, aging and memory, developmental psychology, dementia, psycholinguistics, cognitive and social psychology and neurology.²

One might expect that since only approximately the last twenty or thirty years have been dedicated in small part to certain aspects of non-literal communication (e.g., irony, satire, overstatement, understatement, non-literal meanings, sarcasm, which all mostly concern recognition skills etc.) the complexity of such social cognitions is quite great in comparison to the ordinary literal speech described within the maxims of H.P. Grice in relation to conversational partners generally making claims that they, on one hand, believe to be true (i.e., "quality maxim"), posing questions and asserting, on the other hand, what is relevant within a conversation context (i.e.,, "maxim of relation"), and three, being polite and so forth (Grice, 1975; 1978; 1989; Brown & Levinson, 1987).

These maxims, however, are perhaps best understood as presumptions that addressees or interpreters make during conversations and what addressers or expressers often exploit. Since the practice of speech and listening comprehension include the practice of social cognition and presumptions that are instantiated quite often, this type of literal addressing of language has been referred to as the "cognitive baseline," which entails that it is utilizes less neural pathways than non-literal forms of speech in relation to the overall activity of the functioning brain. For instance, lying requires "semantic leakage control," if the liar continues to lie convincingly without allowing the conversational partners to realize what the liar knows to the contrary of what s/he claims

² Drs. Patricia Rockwell, Shelley Channon, Rachel Giora, Sam Glucksberg, Roger J. Kreuz, Kara Olineck, Penny Pexman, Albert Katz, Skye McDonald, S. G. Shamay-Tsoory, R. Tomer, J. Aharon-Peretz, Katherine Rankin.

³ One and three above are very relevant here since they are contrary characterizations to that of sarcasm. H. P. Grice contributed greatly to the field of pragmatics, a subfield of linguistics that focuses upon the role of context in relation to meaning.

or assumes within questions. That is, it requires more oxygen for the brain, more practice, attention and more energy in order for a liar to continue lying convincingly.

Lying is perhaps not the best example as a part of language to compare to sarcasm since lying begins to be expressed by healthy children at the age of three, although it is often fantastical, and it starts to become more sophisticated by the age of four (e.g., more convincing). Sarcasm, on the other hand, develops much later (i.e., around the beginning of adolescence). In fact, it is often noted that teenagers are "the kings and queens of sarcasm," which may indeed involve a necessary amount of practice in order for teenagers to develop their social cognition skills to a level that is adequate and appropriate for them to socialize cordially with adults, especially those with differing opinions and opposite-ended worldviews.⁴

Since the vast majority of experiments over the last twenty years have involved the examination of the skills necessary for the successful recognition of sarcasm rather than investigations of the creative factors involved amongst *expressers of spontaneous* and rehearsed sarcasm (e.g., spontaneous and rehearsed lying have been comparatively studied; see Ganis et al. 2003), it may be concluded that the so-called "cognitive baseline" or ordinary brain states, during which neural activity does not exceed some sort of average level of neuronal firings, does not neurologically demand as much energy, cognitive processing and attention as the brain requires with the recognition of sarcasm.

Therefore, in light of all of these factors concerning the neurological complexity of sarcasm, the later stage of development during which the expression of sarcasm takes

⁴ Sarcasm for adolescents (10-22 years) might be their way of "testing the waters" since the adolescent can always later remark that the literal meaning of his or her words were actually positive, although the intended meaning is negative and insulting. The second prejudice appears to be flawed since sarcasm seems to be a developmental necessity for socialization techniques, tactics and approaches.

place, and the wide range of professionals studying sarcasm, we may conclude that the first prejudice (i.e., that sarcasm is the cognitively lowest form of wit) is unfounded.

The Importance of Studying Sarcasm

Many cognitive neuroscientists have been focusing their later research and experimentation on sarcastic reasoning, usually in relation to the verbal expression that a person performs, and which one neither believes is literally true nor sincere. These prolific researchers come from various fields concerning aging and memory, cognitive and social psychology, psycholinguistics and neurology, which have combined in various interesting ways.

They have conducted groundbreaking research that has located crucial parts of the neural networks that are typically responsible for the sarcasm recognition ability, illustrated the significance of the loss or lack of functioning of this ability as the result of certain diseases and disorders, like Alzheimer's disease and autism, and they have all contributed to a better theoretical approach that fits descriptions of Theory of Mind. Theory of mind⁶ (i.e., ToM) is the ability to attribute mental states to others that are often different from one's own mental states. ToM, which is also known as "mentalizing," abilities develop exponentially from infancy, throughout adolescence, and into adulthood,

⁵ A few examples of researchers who have shifted their attentions to the study of sarcastic reasoning include Drs. Patricia Rockwell, Taeko Adachi et al., Shelley Channon, Rachel Giora, Sam Glucksberg, Roger J. Kreuz, Kara Olineck, Penny Pexman, Albert Katz, Skye McDonald, S. G. Shamay-Tsoory, R. Tomer, J. Aharon-Peretz, Katherine Rankin and Hitoshi Uchiyama et al.

⁶ Premack and Woodruff (1978) inquired as to whether humans are the only species which possess the ability to attribute unobservable mental states in relation to the interpretation of behavior of others (i.e., characterizing interests, emotions, intentions, beliefs and feelings in order to predict and explain behaviors). "Theory of mind" refers to the category of psychological characteristics which allow reasoning or conscious awareness about these states. "Theory of mind" is (1978 p. 515) "a system of inferences of this kind" that "may properly be regarded as a theory because such (mental) states are not directly observable, and the system can be used to make predictions about the behavior of others."

as we hone our skills that allow us to recognize when an individual says something that the expresser disbelieves, such as with sarcasm, forms of irony, exaggeration and lying.

The recognition of sarcasm involves any or all of our various senses. The senses of taste, touch, smell, hearing, seeing and *balance* are included, and there are more, such as the sense of self and sense of humor, direction or orientation. The most commonly recognized type of sarcasm comes from listening to sarcastic speech. However, sarcasm can be read visually, and sarcasm can be tactilely read in Braille by those who are both deaf and blind, for instance. Therefore, languages involve tactile, visual and auditory inlets that allow people to understand, interpret and express sarcasm on a daily basis.

Moreover, if an individual expresses something ironic, it can involve one's sense of balance, or it may involve something that one must taste or smell in order to recognize the sarcasm. For example, say that I smell something rancid that causes two of us to close our nostrils by pinching our noses, and I exclaim, "That smelled delicious!" We can also imagine tasting something, such as rancid meat, and claiming, sarcastically, that it is "as delicious as his mother's cooking" as well. Moreover, if someone wobbles, another may exclaim sarcastically that the person has "perfect or great balance." The latter example would be a form of sarcasm if the wobbler were known to be negatively self-conscious about that fact, and the expresser meant to cause anguish, for instance.

In the aforementioned situations the individuals must first smell or taste or lose balance, respectively, and then process the literal meaning of the speech in which the expresser has asserted something he believes is untrue. If the non-literal speech is heard, then Wernicke's area (i.e., part of the left hemisphere of the brain in the superior temporal lobe lying behind the primary auditory cortex) is very likely involved with the

cognition of language interpretation and comprehension.

Subsequently, a contradiction is cognized in relation to whatever was expressed that is different from a correct description about an individual, object or event (i.e., in respect to the context and situational variables). These cognitions, concerning contradictions, are correlated with neural activity within the temporal region of the brain. Lastly, the right hemisphere's ventromedial prefrontal cortex appears to be necessary to many researchers for the context to be recognized as well as the sarcasm (Shamay-Tsoory, Tomer & Aharon-Peretz, 2005).

It has been illustrated that sarcasm involves all of our senses, although the senses of balance, direction, gustation and olfaction, for instance, must involve at least one of the other three senses in order for an individual to interpret something as "ironic" or "sarcastic," namely, vision for written language or sign language, auditory perception for spoken words, and the tactile sense perception for Braille or Morse code. Broca's region of the brain is an important functioning region for language to be expressed. Wernicke's area is an important functioning region for the interpreter to be able to understand the literal meaning of language expressed.

The presence of an expresser (i.e., usually in the form of a recording during experimentation) and several interpreters have been involved in psychological research. However, researchers have neglected analyzing the intentions, neural correlates and causes of sarcastic expressions brought about by the expressers since the *recognition ability* is typically the focus of research rather than the *expression capability* of sarcastic individuals; thus, sarcastic expressiveness is an understudied phenomenon.

It is my hope that this research will encourage greater interests and focus on the

latter aspect of sarcasm and irony, especially in relation to the intercommunication that occurs between two successful recognizers of sarcasm and irony and in order to prevent future conflicts in the workplace that might be foreseen as a result of understanding sarcastic expressions and expresser's motivations.

Although Descartes wrote extensively about the subject of the functioning brain in the 17th century, the idea of the localization of functioning brain parts became popularized amongst the crowds of scientists in 1861 when the surgeon Paul Broca proposed that the area of a stroke patient's brain that had been damaged was responsible for the ability to express speech. This patient could only utter one word continuously after his stroke, "tan, tan."

Many skeptics became proponents of this idea that the localization of functioning brain parts provides necessary conditions in order for behaviors, experiences and information processing to be instantiated after Broca demonstrated that other brains had damage to the same areas, and these individuals had similar problems concerning the loss of the expression of speech. Proponents strengthened their "neural localization" arguments after Wernicke, Cohn and Weigert (1874) published *Der aphasische Symptomenkomplex: Eine psychologische Studie auf anatomischer Basis* through the Breslau Universität press. *The Symptom Complex of Aphasia: A psychological study of the anatomical basis* in 1874 is one influential piece out of many that supported this localization view of the brain or mechanistic approach.

Unfortunately, this view was espoused while various counter-examples were ignored, such as the children with early massive brain diseases that Jules Cotard studied in 1868. These children had such great areas of damage that most of their left

hemispheres were absent as well as Broca's area; nevertheless, there was no sign that of any deficits in relation to their ability to express language. Cotard's study consists of just a few counter-examples, but there are thousands; some are published in Dr. Norman Doidge's book, *The Brain that Changes Itself* (2007).

Doidge argues convincingly that the *mechanistic view of the brain* is incorrect (i.e., the view of the brain as a machine with parts that perform certain functions that can be localized, and if areas are damaged, then those functions will be forever lost). The Cartesian mechanistic or localization view is inaccurate since all that is necessary to refute such a view is a single counter-example, and there are many. Therefore, the new theoretical framework within which we should incorporate theories of mind and brain involves **neuroplasticity** (i.e., the natural ability of the brain to form new neural connections, compensating for changes in the environment and injuries) and **neurogeneration** (i.e., the reproduction or generation of neurons).

The sheer number of brain functions necessary for the recognition of sarcasm illustrates its importance in relation to other types of higher-order thinking, such as the recognition of metaphors and general irony (i.e., sarcasm is often a type of verbal irony). Because the recognition of sarcasm requires higher cognitive abilities (specifically, greater mentalizing skills that allow the attribution of knowledge to others) than the cognitive skills needed in order to recognize metaphors, some debilitating diseases, disorders, and drugs (e.g., Alzheimer's disease, frontotemporal dementia and prednisone) affect individuals' abilities to recognize sarcasm first and foremost.

This means that before the individuals lose their abilities to understand metaphors, they first lose their abilities to recognize sarcasm and irony. Thus, it is important to

understand the implications that sarcasm and irony recognition have for medical, mental and neurological diagnoses.

For example, the complete loss of the sarcasm recognition ability is a sign that there is a type of disorder with the function of the related neural networks, that is, if and only if the individual previously practiced this ability and other factors are taken into consideration, then there may be a disorder (e.g., we would not say that the person lost the ability, if the person were deprived of sleep or food). Moreover, it is plausible that teaching sarcasm recognition skills will allow individuals to retain other cognitive skills, make new neural connections and improve the vigor and performances of the most precious organ.

However, certain disorders, such as Attention Deficit Hyperactivity Disorder ADHD, make the recognition of sarcasm more challenging for many individuals, and so may a sharp pain, for instance. Recently, research at the University of New South Wales has determined that sarcasm is one of the cheapest methods for identifying a common symptom of those who suffer from Frontotemporal Dementia (FTD) because these individuals are unable to interpret ironic and sarcastic speech, and thus they misinterpret people's expressions as being sincere. Since sarcasm is often concerned with jesting and insulting remarks, it is within the interests of individuals to both understand and respond properly to the expression of sarcasm.

Additionally, the jesting and insulting nature of sarcasm shall be considered within Chapter III in relation to differing ideologies, such as political, economic and religious worldviews. With the structure of reasoning involved in deception there is quite often an *intentionally false* utterance that accompanies sarcasm, exaggeration and lying.

The latter characterization of sarcasm is largely involved in literary criticism. The focus of this dissertation is multidisciplinary, contributing to such fields as psychoanalysis, cognitive neuroscience, psychology of sensation and perception, social cognitive psychology, communication studies, epistemology, and philosophy of language, mind, and science.

BRAIN DAMAGE: The importance of sarcasm as a field of study should be first considered concerning easily observed characteristics of those who have lost their abilities to express and interpret sarcasm as a result of brain damage. Within the latter half of chapter I Gregory et al. 2002 and Kipps et al. 2009 experiments concerning frontotemporal dementia (FTD) (i.e., the second most common form of dementia) is compared with Alzheimer's disease patients and healthy control subjects, which maintain that the sarcasm recognition ability is greatly hindered within FTD subjects. Moreover, the expression of sarcasm is encouraged to be utilized in the psychiatric and medical realms as a diagnostic tool to assess levels of deficits of FTD. Thus, there are very appropriate situations during which medical practitioners should use sarcasm.

DEVELOPMENTAL ABSENCE: The lack of development of the capability to express and/or interpret sarcasm in otherwise fully functional children shall give some insights into the level of importance that this field of study encompasses. These two groups have either lost or never attained certain organizational-neural-structures that involve Theory of Mind (ToM) capabilities. Since the localization of neurological structures are or can be varied for certain functions (Doidge, 2007), we shall find the *organizational structures* that could allow sarcastic expression and/or recognition as being more important here rather than *their* placements within the brain.

With our current knowledge about the quick and easy practice of sarcasm within the hospital for the purpose of diagnosis there is also the hope of rehabilitation of lost recognition abilities with the usage, explanation and practice of SRA. For if somebody has lost his or her SRA, how could the person regain this ability without practicing the subtleties that coincide with this aspect of speech, writing and language (e.g.., the varying tones, rolling of the eyes and wonderful facial expressions)?

The latter facts that, first, the expression of sarcasm has functioned as a diagnostic tool for at least one type of brain disorder, and, second, that sarcasm may be used as a rehabilitation technique by future practitioners demonstrates that the second prejudice (i.e., the prejudice that sarcasm is the morally lowest form of wit) is at least not well-founded

There are different types of human intelligence, such as the social intelligence of an independent woman who has traveled much of the world. There is the intelligence of a man who is "book smart" and who has attained his knowledge through reading all of the *Great Books* and by engaging in intense research and writing, and one who is financially intelligent but socially inept. One cannot claim non-ignorantly that a person (i.e., who is in the top one percent of the top 1 percent of the world's most educated physicists and mathematicians) has a well-rounded education and overall intelligence, unless the individual can successfully express oneself and interpret and recognize what others believe on the basis of their behaviors and one's own ability to mentalize (i.e., practicing ToM).

The recognition of sarcasm is one of the more challenging and higher-order cognitive functions, which demands intelligence, social cognitions, sufficient sense

perceptions and attention. This dissertation is an analysis concerning this latter form of intelligence and social cognition, inevitably involving sarcasm and irony and knowing what one intends when what one actually expresses differs from some *intended* or *non-expressed meaning*. This dissertation also investigates the history of the experimental designs that test for mentalizing skills, it shall be argued that our current research techniques are only sufficient for testing those in phases of early childhood, and there is a "gap" in our understanding of adolescence reflected in both philosophical and scientific literature as well as the absence of techniques that could test mentalizing skills involved in meta-meta-beliefs, the attribution of meta-beliefs and sarcasm.

History and Cultural Significance of "Sarcasm"

Historically speaking, "sarcasm" is a timely form of expression ranging greatly in various different cultures, dating back to ancient Greece from the word σαρκασμός (i.e., "sarkasmos," which means "sneering, jesting, taunting and mocking"); this comes from the word σαρκάζειν (i.e., "sarkazein" with Latin letters), which means "to tear off flesh" (e.g., in anger). The word "σάρξ" (i.e., "sarks") means the "flesh of an animal or fruit," the "foundation of carnal, immoral or animalistic thoughts and desires (e.g., lust)" or "anything in opposition to the spiritual." It is related at its root to the word "sarcophagus (i.e., σαρκοθάγος or sarkothagos)," which literally meant "flesh-consuming."

In ancient Latin there are a few words meaning "sarcasm," according to Cassell's Latin Dictionary (1968), which covers the time period of the Latin language from around 200 BCE until 100 CE. The Romans adopted the words "facetiae (-arum, plur.), asperiores" and "sarcasmos" to mean "sarcasm." Maccius Plautus, a comedy writer in

the 2nd century BCE and Cicero, who introduced ancient Greek philosophy into the Latinspeaking world, used the word "facetiae" (e.g., like "facetious") to mean "wit, humor and drollery."

Although philosophical books have been cleverly crafted with hints of sarcasm, irony and satire throughout, such as the lucid depictions by Voltaire of irrational optimism and criticisms about the idea that God created the "best of all possible worlds" when He created our universe, there has never been a thorough investigation of the multifarious facets of sarcasm; i.e., there has never been a philosophical investigation of sarcastic reason.

We may ascertain from the former facts that the concept of sarcasm is one of the most ancient, it is multi-cultural, and it has played some sort of role within the history of comedy and as a form of insult for well over 2,000 years. A brief overview of the history of sarcasm may in fact illustrate that the third prejudice (i.e., sarcasm as a concept lacks philosophical significance and is only conversationally oriented) is unwarranted.

Historian Doris Kearns Goodwin writes in her Pulitzer Prize winning history book, *No Ordinary Time* (1994) about the USA President Franklin D. Roosevelt, who spent the most presidential terms in office, and his wife, Eleanor, that "because he started school two years later than most of his classmates, Franklin was always set apart from the rest of the boys. 'They knew things he didn't,' Eleanor said later. 'He felt left out.' Unaccustomed to the ordinary give and take of schoolmates, Franklin put his fellow students off.

The studied charm that impressed his parents' friends and delighted the faculty at Groton seemed affected to boys his own age. 'They didn't like him,' Eleanor once said.

'They had to give him a certain recognition because of his intellectual ability, but he was never of the inner clique.' Resentful at his lack of popularity, yearning to be at center stage as he had been all his life, Franklin turned at times to sarcasm, an unfeeling ribbing of his schoolmates, which only made things worse" (p. 78). It appears thus that the longest running US president utilized sarcasm in a scornful way during his late childhood and early adolescence, which negatively affected his relationships with his classmates.

Whether or not other cultures have words that correspond exactly with the terms "sarcasm" and "sarcastically" is somewhat trivial, but the utilization of the skills required to recognize those often, intentionally false expressions we call "sarcastic" is very significant. For it involves understanding contextual cues about particular events, the language or expressions performed, contradictions and the beliefs and desires of the expresser to a great extent. Keep the following example in mind as you consider different cultural distinctions in relation to such concepts as sarcasm and theory of mind.

A man has already waited in a queue at a cafeteria and received a thick beef steak. He stands within close sight of a woman and an overworked, tired and ornery cook who is looking directly at him. The man turns his head to some shelves housing a huge load of silverware with sections labeled "forks," "spoons" and "knives." There are, however, absolutely no knives, but there are thousands of spoons. The man turns his head back to the chef and says, "Can we P-L-E-A-S-E have some more **SPOONS!**" The woman looks both of them in the eyes and says, "Ex-act-ly."

(Note that the last word in each sentence spoken by the man and woman is italicized to denote the similar emotional tones of their pronunciations.) Since particular studies have illustrated that men tend to use sarcasm more than women, and both genders tend to perceive men as being more sarcastic than women (Knox et al., 2004), we may hypothesize that testosterone and estrogen play some sorts of roles within the expression

of sarcasm. For instance, Dr. Simeon Yates at Sheffield Hallam University discovered that men use far more sarcasm in their text messages on cellular phones on average, although women write more messages on average.

Let us assume that the man represents an individual with more testosterone, the woman has more estrogen, and the chef is a hermaphrodite with an amount of testosterone and estrogen that is approximately an average between the two amounts of these hormones⁷ that the man and woman contain in their bodies. How might their hormonal levels affect the ways in which they perceive or interpret sarcasm?

My Kenyan colleague criticized this example in the following way from a cultural perspective. My colleague, Mr. Hassan (BA University of Nairobi), said that in Kenya the cook would not consider the aforementioned expression to be sarcasm at all because "they would love to eat a big, thick, juicy steak with their bare hands." Moreover, the man's comment might be considered to be "crazy," although the woman's remark may be considered to be ironic.

Much of this dissertation provides evidence for considering various hypotheses, which appear to be outside the boundaries of our most up-to-date scientific techniques for measurement and systemizing. Thus, it is my aspiration that this research will facilitate progression within the biological sciences as well as demonstrate an interdisciplinary connection between the sciences and philosophy in which the latter field is proven to be a necessary facilitator of the type of theorizing that diminishes the kind of gratuitous experimentation and measurement that arises within all of the sciences as a result of an insufficient theoretical framework by which simpler scientific hypotheses are understood.

 $^{^{7}}$ Possibly the great influx in hormonal levels during adolescence will be utilized in the future to explain the great role of sarcasm within this phase of our developments.

The aforementioned types of analyses focus primarily on small groups, but this inevitably raises the question about how sarcasm affects the society and the international community. In order to answer this sort of inquiry I have analyzed cultural, subcultural and political ideologies within their cynical structures. It is argued that sarcasm can function as a way in which *particularly criticized ideologies* can be negatively portrayed without the ability of those who espouse these criticized ideologies to retaliate.

Retaliation would be performed via the *criticized ideological group's* own counter-attack, which would expose the flaws of those others who espouse some possibly, unapparent ideology (i.e., this *unknown ideology of the criticizer* serves its own group, as well as every other group in opposition and/or competition with the criticized group, by having already bitten through *their opponent's* "ideological flesh" with biting sarcasm).

Sarcasm can be a simple re-statement of some group's ideological jargon but where the re-statement is used in another context or with the accompaniment of rolling eyes, sneering or mocking facial expressions, overly authentic, or too enthusiastic-sounding or too sincere-looking expressions of the sarcastic re-statement in a fashion that serves to tear and rip through the ideological skin of the negatively portrayed group, but justifiably so! . . . i.e., usually a restatement of the exact wordings or very similar wordings expressed in a "sarcastic" fashion is sound criticism within this social context.

"Biting sarcasm" exposes the unprotected and uncovered body of the criticized ideology which had functioned as a deceptive means by which certain individuals became part of that group at the expense of their own interests; biting sarcasm thus rips and tears the ideology apart via dismembering, i.e., destroying that part of the group that had

thought they themselves were members.

"Sarcasm," under these lights, acts as the performance of a surgical removal of the unnecessary elements wrought by groups' deceptive ideologies. Sarcasm thus separates those successfully deceived into supporting some group by demonstrating the absurdity and irony of their own ignorant voices (i.e., ignorant of the fact that they support a group against their own objective interests, such as financial interests), and sarcasm aims to cause pain or embarrassment and anguish as an aspect of the sarcastic criticism.

The most important, deceptive ideology⁸ is the ideology inculcated within the education system of the society upon which one is focusing her critique, and this is the hegemony's ideology that allows the following categories to be perpetuated: (1) the *legal but socially unacceptable*; and (2) the *illegal but socially acceptable*; these categorizations of actions within a society, available as a result of the hegemonic powers, are interrelated with the legal status decided upon *by and for* the politically powerful and bring a *risk of civil unrest*. I shall elaborate on these concepts within the final chapter.

Lastly, the final chapter upon which the ideology of the hegemony is based, includes a metaphysical section in relation to religious and scientific ideologies in virtue of descriptions of events placed within the ideological framework divided into four epistemic categories: (1) logically possible; (2) physically possible; (3) logically impossible; and (4) physically impossible, which are ideological categories by which various religions and scientific revolutions have categorized all objects and events.

Sarcasm, again, is argued to function as a means by which ideological changes are made, concerning the descriptions of objects and actions placed within category (1)

⁸ Since the US is the largest national economy, which has tremendous military, legal, educational and economic impacts on the rest of the world, the examples provided here appropriately concern the US political and cultural realms under the last administration, namely, the presidency of George W. Bush.

through (4), such that the absurdity of unreasonable categorizations undergo a process of enlightenment.

Amongst certain interpretations of the history of philosophy there has been an accepted line of argumentations that proceeds from a foundational assumption that "it is plausible that there are no other minds in the universe" or that "we cannot *know* there are other minds" (i.e., other-minds skepticism, solipsism, extended dream arguments etc.).

Interestingly, the sheer complexity of sarcasm as an accepted idea, which is plausibly as old as philosophy itself, or yet more ancient, presents us with contrary assumptions, such as "there must be at least one mind expressing and one mind interpreting sarcasm," unless, for instance, one can offend oneself via one's own remarks and not know that one is, in fact, doing this (i.e., skepticism about the existence of other minds is also skepticism about the existence of sarcasm with peculiar exceptions).

However, despite the fact that philosophers have either advocated or argued temporarily against the thesis that there are other minds (e.g., the methodological skepticism of Descartes supporting the latter case), philosophers have not argued against the instantiation of sarcastic reason.

Sociologically speaking, this therefore suggests that sarcastic reason has been interpreted within a framework quite separate and distinct from philosophy, and it is the purpose of the present analysis to provide an innovative beginning and a method of critique of reason and emotion to place within the philosophical frameworks.

Objectives and Methodology

This dissertation focuses on the epistemology of a "perceptual recognition ability to read other peoples' minds," especially when individuals express something they disbelieve, such as cases with the recognition of sarcasm in which somebody expresses something sarcastically and an interpreter recognizes the other person's intended meaning (i.e., perhaps *opposite* of the sentential meaning) without any noticeable *signals*, such as a sarcastic tone. The goal of this dissertation is to provide a detailed analysis of the recognition skills that allow mind-reading and to illustrate that sarcasm and irony are amongst the highest levels of social cognition in virtue of their categorization as *deceptive reasoning*.

For this purpose a plethora of child psychology, developmental psychology and social neurocognitive psychology references have been utilized, stemming largely from the rejoinder of a philosopher, Daniel C. Dennett, to a newly emerging set of fields studying "Theory-of-Mind" provide clarification (i.e., ToM, which is *the ability to attribute thoughts and mental states to others* that are different from one's own, such as beliefs and desires of the other participant during the communication process).

Sarcasm involves all of our senses and various areas of our brains to function with great coordination with our short-term memories, and these latter facts are argued within the preface and demonstrate that sarcasm recognition is a multifaceted type of reasoning. The sarcasm or irony recognition ability known as ToM in cognitive neuropsychology is analyzed in relation to what is argued to be the highest levels of reasoning, namely, sarcastic reasoning, which is argued to be a form of deceptive reasoning. A philosophy of general deception is explicated in addition to a psychological analysis, originating

toward the end of the introductory chapter and throughout the second chapter in relation to important ToM literature, which describes the development of the social cognitive abilities necessary before the development of ToM skills from the age of 3 months to the beginning of ToM systems at 18 months and higher-order skills throughout childhood.

In relation to the philosophical psychology of deception an historical analysis is offered, which demonstrates that "deception" is one of the oldest concepts analyzed throughout the ancient world. Literature and laws concerning deception have been selected for this purpose in addition to contemporary philosophical psychology of deception. ToM literature is analyzed more thoroughly within the second chapter in relation to a group of models that explain the relationships between *belief*, *reality* and *desire* in order to *predict behaviors*, describe others' mental states (i.e., mind reading) and in order to clarify what the role of mental states is during effective communication. The significance of this idea is creating a model that facilitates the prediction of human behavior by means of a framework for understanding the combinatorial affects of belief and desire sets in relation to reality. The importance of an individual's sarcasm recognition ability is illustrated in relation to mental disorders, and sarcasm is viewed as a method of future rehabilitation, which should be learned or relearned by patients with autism or dementia and other social cognitive disorders, for instance.

Additionally, a set of neurology references has been included in order to present more comprehensive social cognitive findings from the perspective of literature focused on deceptive reasoning in relation to MRI experimentation, lying and truth-telling as comparative studies, *semantic leakage control* involved during deception and ToM in relation to functioning regions of the brain. This dissertation offers a model by which

ToM experiments must be structured and neurological findings can be categorized. The methodology of this dissertation proceeds from an analytic application of the various types of ToM experimentation in relation to a model designed here, which is called the "Cubic Formulation of the Belief-Reality-Desire Triad." This model involves 27 parts by which ToM experimentation is categorized, constructed and comprehended. This graph is offered for the purpose of future ToM research.

Certain developmental psychology experiments focus on the concepts of deception, sarcasm and lying, and these experiments are structurally designed and categorized here in sets for psychologists who are interested in ToM experimentation and for the purpose of guiding future ToM research into the more developmentally sophisticated direction of sarcastic reason, the social cognitive stage of development of late adolescence, and successful deception. Certain suggestions are made in order to guide future comparative studies within the field of social cognitive psychology and experiments involving lying, exaggeration, truth-telling, sarcasm and irony. These suggestions involve the paramount role of "desire" within experiments concerning some subject whom we maintain is attributing beliefs to others as well as delight, indifference or disgust.

The concept of sarcasm is analyzed from the perspective of the liar's paradox, coherence and correspondence theories of truth, theories of belief about meta-belief, and consciousness. The purpose for these related themes involves a Wittgensteinian understanding of language-games involving indecision, lying, contradiction and tautology in relation to the coherence and correspondence theories of truth. This dissertation provides original translations of Ludwig Wittgenstein's *Philosophische Untersuchungen*

and Zettel, which is offered in support of two analytic models that describe the status of belief, desire and reality in relation to ToM research. In this process a new interpretation or new manner of reading Wittgenstein's literature is offered. The task here is to provide an analysis that is philosophical and consistent with cognitive, neurological and logical approaches.

Sarcasm, as a form of deceptive reasoning, is characterized as the highest level in cognitive research, which has eluded scientists and philosophers who have rudimentary understandings of developmental psychology in relation to the stage of adolescence.

Sarcastic reason is a form of deceptive reasoning when an interpreter does not possess the necessary ToM abilities to be able to understand and recognize the sarcastic expression (i.e., it is that which deceives, although it may be unintentional). The problem described here concerns a lack of experimental techniques within social cognitive and ToM research by which adolescent social cognitions can be measured, and the absence of these techniques are a result of the lack of a proper theoretical framework by which higher-level meta-beliefs can be properly understood.

The aim of this dissertation is to offer a theoretical framework and models through which sets of social cognition experiments can be designed. Moreover, the goal here is to describe the complicated nature of these techniques in virtue of the most basic descriptions of mental states involved with sarcasm and irony, which are: (1) meta-meta-meta-beliefs; (2) an Interpreter's true *belief* that an Expresser *believes* that the Interpreter *recognized* the expresser's non-literal *wordings*; and (3) the application of logic in relation to indecision, indeterminacy and the communication process (e.g., IbEbIrw & Ib is true, i.e., a detailed example of (1) that describes (2) with concision).

The final chapter of this dissertation is a sociological and macro-analysis of sarcasm in relation to the communication process modeled with a single expresser and interpreter. The methods employed here involve the utilization of two models, which are each structured with four categories explicated via symbolic logic. Moreover, this analysis is based within the tradition of continental philosophy since it has been influenced by such thinkers as Adorno, Althusser, Gramci and Sloterdijk.

The first model categorizes all behaviors within some geographical region and time period as being legal or illegal behaviors and socially acceptable or socially unacceptable behaviors, according to any particular ideology. The cynical structure of political, economic and cultural ideologies is viewed from the perspective of different groups' categorizations of these behaviors within the same geographic and temporal confines and in relation to an on-going socio-economic class struggle. The second model demonstrates how any particular ideological group classifies actions in virtue of whether the actions are possible or impossible in either a physical or logical fashion. This second model, the LIPP (i.e., Logical, Impossible, Possible and Physical), is utilized in order to understand scientific, religious, and metaphysical ideologies and ideological differences via a constant and consistent structural framework, which facilitates the comparison of ideologies.

Sarcastic reason is compared to cynical reason within the tradition of critical theory. Sarcasm is argued to resemble a tool utilized for the purpose of criticizing other ideologies within a cynical framework. The goal of this third chapter is to illustrate the relationship between cynical reasoning, the role of political, cultural and economic ideologies and peoples' behaviors in response to sarcasm, and the reasons for the

expressions of sarcasm. This final chapter utilizes the negative or insulting, biting, derisive, scornful and mocking nature of the ancient Greek definition of "sarcasm," which functions as "ideology critique" within the miscarried dialogues expressed by opposing ideological groups. This ideological analysis involves a cynical structure by which cultural and political ideologies are understood in relation to legality and social acceptability, the hegemony of a society, and the risk of civil unrest.

Finally, the ideological framework called "LIPP" offers a series of different metaphysical ideologies by which other metaphysical ideologies can be attacked via sarcasm. This theoretical framework, encompassing all ideologies, allows for the instantiation of a metaphysical analysis by which sarcasm is understood as *a type of reasoning that eliminates unreasonable metaphysical beliefs*. That is, sarcasm is viewed as a type of philosophical reasoning that actually changes attitudes of individuals from positive and affirmative, regarding some philosophical stance, to negative and critical or skeptical and cynical, concerning the same stance. Therefore, sarcasm functions as a type of reasoning that eliminates metaphysical stances in virtue of offering a different attitude or desire-relation toward the metaphysical stance in question.

Introduction to Theory-of-Mind and Sarcastic Reasoning

First, allow me to present a philosophy of mind section in order to properly place an appropriate framework through which we can understand the theory-of-mind ability in cognitive neuroscience research and sarcastic reasoning in relation to contemporary challenges in the philosophy of mind literature. Six assumptions outline contemporary philosophy of mind, upon which my research is based, and provide an evolutionary and developmental framework by which developmental problems of consciousness shall be analyzed, and six more assumptions are asserted specifically in relation to consciousness studies

Second, the task of properly placing this dissertation's research focal points involves describing philosophical relations with the sciences in general, so the subsequent section will demonstrate the overlap between philosophy and science with a specific emphasis on research concerning the discipline of cognitive neurology and viewpoints about Theory of Mind (ToM) attributions in the most relevant and current philosophy and psychology texts.

Third, I shall describe briefly what is meant by the phrases "ToM" and "sarcastic reasoning" from the standpoint of developmental cognitive neuroscience before we analyze these ideas in relation to the philosophical problems they pose. The philosophical problem can be portrayed in terms of a scenario in which two strangers meet each other and one says something sarcastically to the other *without any noticeable cues*, such as a sarcastic tone, rolling of the eyes or a signal like a facial expression,

which are all absent, but nevertheless the sarcasm is recognized. The key question is:

How and why exactly does the interpreter attain knowledge about what the other person believes when an expresser says something that she disbelieves?

Lastly, this chapter characterizes *sarcasm* as a neural, multifunctional cognitive process that poses new challenges for theories about higher levels of consciousness as a result of concepts such as meta-meta-meta-meta-beliefs that arise seemingly instantaneously in both expressers and interpreters. The concept of sarcastic reason will be described as a type of reasoning that involves any or all sensory perceptions and which challenges theories of perception because the attribution of mental states to another person on the basis of the recognition of a sarcastic expression can be instantiated without the co-occurrence of any perceptual cue or signal that would allow one to induce the conversation partner's mental states from something perceived.

Li. Philosophy of Mind, Modern Characteristics and Meta-representation

A vast number of academic disciplines in the Western World have arisen out of the subdivisions of philosophy since somewhere between the 25th century BCE when the Governor of Memphis, Ptah-Hotep dictated his Maxims dedicated to his son, which shall be described in the following chapter, and the 6th century BCE when Thales, a Greek philosopher, predicted an eclipse on May 28th 585 BCE and Aristotle during the 4th century BCE.

Many academic disciplines are inevitably returning to an all-encompassing field, namely, brain research, which must involve every subject that is known and even

considered by humankind and all species. Additionally, technological advances, especially in artificial intelligence, are demonstrating that there are very new directions that will involve the interpretation of language and intentions in a whole new way. If the purpose of philosophy is the investigation of the *greatest complexities*, brain research must be incorporated in various philosophical works because this research involves a bundle of matter that comprises the most highly organized functional structures that we know about in the universe.

The aim of this dissertation is to understand the implications of various types of deceptive reasoning, to describe, explicate and argue why exactly sarcasm and other forms of deceptive reasoning are the highest levels of meta-recognition and demonstrate that they demand a comprehensive analysis. We shall understand what the significance of the latter facts are in relation to cognitive, neurological and behavioral disorders in which the highest cognitive abilities are either hindered or greatly enhanced, such as in the case with highly intelligent psychopaths.

Before we begin our analysis of sarcastic reasoning and the cognitive abilities associated with it, allow me to describe briefly where this research belongs in relation to the field known as modern and contemporary philosophy of mind. Historically, philosophy began as a general "love of wisdom" for anything, and it progressively gave rise, roughly, in the following order to mathematics, astronomy, physics, sociology and psychology as developing scientific fields. The transition from the "philosophical" to the "scientific" arises after we develop the techniques necessary and sufficient for answering particular questions involving measurement. Moreover, the related questions and hypotheses change from being *philosophical* to being *specified scientific questions* in

which techniques and structurally strict methodology are utilized.

The field of philosophy continuously remains inquisitive after scientific explanations are put forth for the purpose of examining, describing and explaining the central remaining questions after various sciences have left them greatly or entirely unanswered. The tools of philosophy that enable philosophers to tackle such challenging questions are rational argumentation and logic and, of course, the advances afforded to them via the sciences. The former tools, namely, argumentation and the study of methods for evaluating arguments, are used in every field, although philosophy utilizes these tools more effectively, deriving deductive and inductive consequences from various other disciplines. The purpose of philosophy of mind is an eclectic understanding of minds and their places in a variety of environments around the world.

This dissertation makes certain assumptions that I shall outline right here:

- We have minds and bodies (i.e., solipsism is assumed to be false, for instance).
- (2) An individual's mind and body function together in many ways.
- (3) Our bodies are both physical and publicly observable (i.e., our bodies are made of matter, and they take up space).
- (4) We have mental lives that *appear* to be private in various ways.
- (5) You and I have "privileged access" to the information or contents of our own minds (e.g., if you are in pain, the best person to gain knowledge about your pain is YOU because of your privileged access to this information).
- (6) Our minds evolved with our central nervous systems via certain selection processes. This entails that in order to understand the mind we must

understand the organism of which it is part, the environments in which it functions, and that includes other minds with which we communicate in the universe (e.g., the metacognitive processes called mentalizing tended to coevolve with the evolution of more complex anatomical structures).

The simplest explanation of a philosophy of mind is *solipsism* about which one must only explain the contents of a single mind. Assumption (1) is necessary in order for sarcasm to be analyzed since sarcasm does not always involve the sarcastic expresser expressing sarcasm to oneself.

The simplest *prima facie* reconciliation of the first five facts or assumptions above was proposed by Rene Descartes in the 17th century and is called *dualism*. *Substance dualism* is the thesis that there are two distinctly different substances that account for the differences between our physical bodies as publicly observable entities and our minds as the mental aspects of our lives that appear to be private and allow privileged access.

On the other hand, Gilbert Ryle argued that the Cartesian view of the mind is a sort of "myth of the ghost in the machine." We may argue that some of the physical behaviors that we perform are brought about by our minds, volition and the "decision-making" aspects of our voluntary behaviors we refer to as the *mental*. However, if the physical and mental realms are distinctly different aspects of the world, then questions must be answered about how exactly the "physical" and the "mental" interact or why they *appear* to interact in our daily lives. Moreover, a problem arises about how the mental may have biologically evolved. Dualism, however, was a theory that arose well before Darwin's concepts of biological evolution concerning the origin of species and shall be treated as such. For the purpose of this dissertation I shall not be incorporating any

substance dualism ideas.

Out of these six characteristics of contemporary philosophy of mind the fourth description is the weakest by which it merely *seems* to philosophers and scientists that our mental lives are private, but they may in fact not be private since we are able to publicly observe peoples' thoughts and report their mental contents before they are aware within very restrictive laboratory settings (Grimm, 2008). For instance, No Lie MRI, Inc. argues that they have can detect whether a statement is a lie or not with a 93% accuracy, and they are now determining the outcomes of court cases on this basis; moreover, this company claims that the development of their technique shall result in a lie detection test that is 99% accurate (www.noliemri.com; Langleben et al. 2002 & 2005).

Obviously the weakest of the latter six descriptions of contemporary philosophy of mind (i.e., (4)) is significant in order to maintain whether there are certain aspects of our mental lives that must be private or whether we are all able to be read like "open books" with the fMRI and the like. Sarcasm is one type of mind-reading skill at least in the sense that we must have special recognition abilities known as ToM, which function at much higher levels (i.e., with greater neurological activity) than truth-telling does. This latter fact can be readily observed in such experiments in which brain damaged patients have no problem with the "literal meanings" of wordings, but nevertheless are unable to recognize sarcasm (Tsoory, Tomer & Peretz, 2005) and from the developmental perspective in which certain ToM functions develop quite early, but sarcasm, irony and social faux pas recognition skills come last during development (Stone et al., 1998; Baron-Cohen et al., 1999a; Gregory et al., 2002).

Each one of us does have a "privileged access" to the content of one's own mind,

and during communication the specific context (i.e., the surroundings or the happenings within the proximity of the communicators' sensory thresholds), and especially the facial expressions and region of the face around the eyes provide the signals or cues by which we understand the wordings of expressers. During speech these wordings may be high in pitch in relation to the speaker's voice range or low in pitch and slow and low in volume. This must change the meanings and interpretations, such as from serious to jesting to ironic to sarcastic to outright devious lying and exaggerating.

According to Chun Siong Soon et al. (2008 p. 543):

There has been a long controversy as to whether subjectively 'free' decisions are determined by brain activity ahead of time. We found that the outcome of a decision can be encoded in brain activity of prefrontal and parietal cortex up to 10 s before it enters awareness. This delay presumably reflects the operation of a network of high-level control areas that begin to prepare an upcoming decision long before it enters awareness.

It has been demonstrated by this group of scientists that we are at least sometimes only conscious of our decisions many seconds after they are plausibly already made (i.e., some of our choices can be accurately predicted up to 10 s before we are conscious of them). Moreover, our attention spans are shorter than we realize during our practices of speech (Hugdahl et al., 2003), yet we are commonly described as being "fully and consciously aware" during such situations as expressing and recognizing irony and sarcasm rather than "focused and aware of only the conversation and relevant events taking place" (i.e., during which higher-order processing takes place in several brain regions and the attention span is focused upon conversational cues and certain events).

Since communicating appropriately with ironic or sarcastic speech includes knowing and properly responding to statements that the communication partner

disbelieved, we must inquire how such awareness developed, but our inquiries may at best proceed from the foundation and lead us toward an elaborate description of higher-order cognition, such as sarcasm recognition. "Consciousness" is a general type of awareness by which these types of higher-order cognitions can be described from a first-person and experiential account. So, we shall examine consciousness further.

I.ii. Philosophy of Consciousness and its Evolutionary Instantiation

THE DEVELOPMENT OF BIOLOGICAL CONSCIOUSNESS⁹: In relation to the problem of accurately describing the evolution of consciousness *vide infra*, I analyze two types of development of biological consciousness in which case sophisticated descriptions of these phenomena can be traced back to even before the 1930s. For instance, Wells, Huxley and Wells (1931 p. 1273) in *The Science of Life* maintain within their later American book edition that:

"In each one of us we are now free to recognize there has been an unbroken development from fertilized egg to adult conscious human being. Yet no one will maintain that the ovum or the early embryo can be conscious in the same way that the man is conscious. None the less, it is impossible to draw any sharp line in development and to say, 'Here consciousness enters the embryo or the infant.' There is an imperceptible sliding into conscious life. The same difficulty greets us when we look at other animals."

I shall categorize the development of biological consciousness in a similar manner to the way in which such states of awareness and experiences are described by Wells,

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⁹ Ned Block (1995) argues that there are at least four distinctly different types of consciousness by which we may be concerned, and I am concerned within this section with phenomenal consciousness, which can be any general awareness that involves mental contents brought about as a result of some sense perception. Block discusses self-consciousness, which I interpret along the same lines as Metzinger (2003) and Windt and Metzinger in Barrett & McNamara (2007). What I shall not discuss is Block's viewpoints (Block, 1995 p. 231 & Rosenthal, 1986; 1989; 1990a; 1990b; Rosenthal & Ming, 2005) on access- and monitoring-consciousnesses.

Huxley and Wells (1931). There are two distinct evolutionary problems of consciousness, and these may be categorized as follows:

(A) the problem of the development of consciousness in the history of biological evolution¹⁰ from single-celled organisms to sarcastic humans; and (B) the problem of the development of consciousness from the fertilized ovum to the adult member of some species. Both (A) and (B) refer to different aspects of the "imperceptible sliding problem of consciousness," and they involve assumption (6) in a way that shifts the importance of research about consciousness toward other species and away from humancentrism.

The conceptual problem concerning the status of these two types of development seems to be a combination of two problems: (1) a lack of *methodology for the systematic measuring of whether an organism is experiencing* something from a 1st person perspective; and (2) the inability to agree conceptually on a *state of minimal consciousness*. We have, I think, at least tacitly agreed upon the logical nature of problem (A) and (B) *vide ut supra*, except for perhaps epiphenomenalists; however, the deductive consequences of these two problems have not been properly organized, so I aim to provide a preliminary analysis of these sliding problems in relation to the methods utilized by social cognitive scientists for what shall be understood as studies of higher-order ToM and involve such phenomena as lying and sarcasm, but these studies are now within their early phases of development.

The imperceptible sliding problem of consciousness (A) involves all of our

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¹⁰ It is important here to recognize that I am assuming that certain types of epiphenomenalism are false. "Epiphenomenalism" is the thesis that mental events do not produce effects upon physical events, but these mental events are caused by neurological and physical events in any case. It does appear at least unlikely that the mental events involved during orgasms and extreme pain would not produce such physical effects as repetition and avoidance in more intricate manners. "Mental events" concern such phenomena as pains, after images, and smells (i.e., phenomenal experiences) as well as propositional attitudes, which can be expressed as beliefs, doubts and desires (Robinson, 2009).

current research concerning the status of all organisms accompanied with sense perceptions to the extent that objects *appear* (i.e., Kant's Erscheinungen) to them in various manners. This means that our descriptions of organisms residing on earth at present must be utilized in order to shed light upon the ancestors through which varying levels of consciousness arose in our ancient evolutionary history. Inevitably, the (A) sliding problem of bio-evolution producing consciousness involves the (B) sliding problem (i.e., (A) regards any conscious organism which developed inevitably from living matter without consciousness and from some parent or parents without consciousness) in an interesting way, namely, the evolution of biological consciousness must have included some set of *necessary traits*¹¹ that allowed some offspring to develop consciousness; however, this offspring (or these offspring) could not have been conscious before their first stages of sense perception development.

Thus, the first conscious organism on our planet was probably an adolescent or an adult (i.e., it had developed already toward the peak of its growth cycle in relation to sensory perception), whereas its parent or parents were not conscious at all. Perhaps the first conscious organism did not have any offspring or it had offspring without the accompaniment of consciousness. Theoreticians fundamentally disagree upon what a hypothetical minimally conscious organism would experience and what scientific instruments and observations could determine about this low grade of consciousness¹².

¹¹ These necessary traits are not exactly what we are searching for in order to ascertain a set of theoretical constraints for minimal consciousness because we are limited by our inevitable status as observers to rely on measurement, systemizing and quantifying in order to produce such first principles for low-level consciousness. Allow us to maintain that the necessary traits are the noumena or things within themselves (i.e., "Ding an sich selbst"), but we are dealing solely with the phenomena, which are brought about by the noumena (Kant, 1989 Prolegomena § 30). Moreover, our distance from this ancient time period separates us from the very phenomena that would allow us to make stronger arguments about their statuses.

12 During the 2009 Distinguished Speaker Series of the Mind Science Foundation, Dr. Christof Koch, a neuroscientist, argued that the human fetus is plausibly not conscious because it is in a sort of "sedated"

One may argue that problem (A) is not an "imperceptible sliding problem" for these reasons, considering the conceptual constraints and the fact that there obviously has to be a first conscious organism or generation of organisms that developed this grand characteristic of life we call consciousness after birth and which accompanies many species.¹³

Scientists have the impression that conceptual constraints shall be determined by our future forms of measurement, and possibly they might become so sophisticated that a small, well-organized cluster of neurons of some brain region as part of a properly functioning nervous system may be regarded objectively as "minimally conscious" or as supplying minimal consciousness, whereas a few cells *less* in that region may allow us to objectively determine that the organism is unaccompanied with consciousness.

Conceptual constraints can be recognized after we realize we are dealing with the "hard problem of consciousness" rather than the "easy" problems as described by David Chalmers (1996), which include how brains process stimulations from different environments, how this information is integrated properly, and the way in which reporting can be produced concerning internal states. The "hard problem" is asking what, how, where and why exactly all the processing coincides with an experience at all.

Within volume IV of *The Science of Life* by Wells, Huxley, and Wells (1931 p. 1270-1), it is explained that:

"As long as we could, we have viewed life as visible, tangible, material fact external to our

state" within the womb in which it has very low levels of oxygen, so consciousness may begin at birth for humans. Oxygen is a necessary condition for organismal consciousness.

^{13 &}quot;Synesthesia" is a blending of at least two sensory modalities in which an individual can gain sensory information from the auditory system and consistently experience colors derived from the visual system's V4 area, for instance. Findings, such as the neural correlates of consciousness involved in people undergoing synesthetic experiences, suggest that different species' conscious experiences may indeed be radically different than ordinary conceptions of auditory information and stimulus that reaches the sensory threshold and the associated experiences, which are often reported.

conscious minds, and ignored any other possible point of view. 'Feeling' we have left out of account. We have studied life *objectively*, using that word as it has been used since the days of Kant. It has been the spectacle of life, the spectacle of its evolution and behaviour, that has engaged our attention. We have avoided any element of introspection in our view.

But as we have studied the behaviour of creatures, the questions of feeling and knowing and thinking and willing have come nearer and nearer to us, and the fact that we feel and think and know and will begins now to force itself upon our attention. The contrast and the relations between the world of feeling within, the subjective world, and the world of exterior reality, the objective world, can no longer be disregarded. They must now be discussed.

They have to be discussed, they have to be stated, but let us say clearly they cannot be explained. This duality of all our individual universes, this contrast of objective and subjective, is an inexplicable duality. So perhaps it will always remain. It is a fundamental condition of life as we experience it. It is possible that a day will come when all the processes which go on in the brain when we think or fall in love, will be described fully in the physiological terms of matter and energy. The explanation may be complete in its own sphere—but the experience of thinking, or of being in love, will not even have been described, let alone explained. That applies with equal force to simple sensation. When we have the sensation of redness, light of a particular wavelength is stimulating a certain kind of cell in our retina, and there it sets going nerve-impulses to certain centres in our brains. But no amount of knowledge of wave-lengths and retinal cells and nerve-centres will make a blind man understand the unique quality of redness as opposed to greenness or blueness; we can describe and explain the machinery underlying sensation, but not the sensation itself. Material processes cannot explain consciousness any more than consciousness can explain material processes; they are different qualities of being.

We can, in general terms at least, explain the physical mechanism of brain; we cannot explain how its working makes us feel and know—or indeed, why we feel and know at all. There we come to a riddle that smiles away any completeness from a purely physiological, mechanical account of life. Nor has philosophy or theology any answer to this riddle."

This quote, which dates back to Wells et al. 1929, comes from chapter IV titled "Consciousness §1 Objective and Subjective" which proceeds after the two preceding

chapters about the evolution of the behaviors of invertebrates and vertebrates, which aptly describes the intelligent behaviors of untrained chimpanzees piling objects, utilizing long objects for reaching food, and using tools in order to attain food and is described within Wolfgang Köhler's (1921) *Intelligenzprüfungen an Menschenaffen* (i.e., Intelligence Tests for Great Apes). The "hard problem of consciousness" is described within the quote of Wells et al. as part of the discipline of biology.

In 2003 David Chalmers cordially replied to an email of mine in relation to his 1996 book, *The Conscious Mind*, and expressed skepticism about the question of "where an experience could occur." For instance, in relation to somebody stubbing one's toe inside a room and apparently experiencing pain immediately afterwards in that same room, Chalmers claimed that we tend to associate the experience of pain with the event of the injury which takes place within certain confines, but he was not willing to allow for the *probability or perhaps even the plausibility* that the experience took place within certain confines as well. Conceptually speaking, if he would have allowed for this as a probability, then I would have limited the confines ever more strictly to a room only large enough for the body, and *I could have included examples of phantom limb pains in which case it would appear that the pain exists not only outside of the body but also plausibly outside of the room,* if the room is only big enough for the body.¹⁴

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¹⁴ This raises an important question about phantom limb pains: Since these pains have been reported as being experienced within the confines of certain quarters in hospitals, why is the placement of a border (e.g., a wall) between the missing limb and the appearance of the placement of the phantom limb pain not a sufficient condition for the alleviation of this undeniable pain? Why can these sorts of pains last for well over ten years, and why are they overwhelmingly experienced as involving a "paralyzed limb" rather than the remainder of a limb that has already healed? All of these questions deal with an aspect of consciousness that is fundamental in relation to each of our senses. For instance, the addition of too much light hurts the eyes, too much noise is painful for the ears, excessive tactile stimulation is painful, spicy foods are painful and so are some smells, like that of a skunk. The phantom pains involve a sense of self that appears to involve a lack of stimulation rather than excessive stimulation, and thus they are crucial for an understanding of the principles of pain and perceptual consciousness. Is it possible for the experience of tactile sensations to extend beyond the physical boundaries of which we are conscious? Metzinger (2005)

David Chalmers (1996 pp. xii-xiii) outlines three conceptual constraints, which involve, first, taking the problem of consciousness seriously, so rather than redefining the problem as an explication of particular behavioral and cognitive functions, the explanation must involve the experience, e.g., if you are consciously staring at some colors and scientists describe the discrimination processes, interaction of the photons absorbing, penetrating and reflecting away from the visual system as well as the activity of the visual system, the 1st person experience seemingly still needs to be explained. One question is whether the latter explanation would already be encompassed within the explanations for the aforementioned processes if they were ever comprehensive.

The second constraint argued by Chalmers is taking science seriously to the extent that the philosophical frameworks by which phenomena are understood should be "compatible" with contemporary sciences. His third constraint involves interpreting consciousness as a purely natural phenomenon that is subject to the laws of nature, but possibly, consciousness is neither physical nor publicly observable from a set of 3rd person perspectives. Perhaps in the future it will be found that two 3rd person perspectives and their reports are insufficient for the attribution of objectively correct 1st person reports from a different perspective than those two; however, three or more 3rd person perspectives may indeed be sufficient for scientists to objectively claim, in the Bayesian sense, that a 1st person report is correct, if the multiple 3rd person observations

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argues that there are two aspects of the self-model that can be observed by the individual, which include the hallucinated self and the bodily self. An out-of-body experience is then argued to be a type of "globalized phantom-limb experience." Moreover, these states (i.e., the state of a phantom-limb/s experience) "correspond to a class . . . of intimately related phenomenal models of reality characterized by a visual representation of one's own body from a perceptually impossible, externalized third-person perceptive (e.g., lying on a bed or the road below oneself) plus a second representation of one's own body, typically (but not in all cases) freely hovering above or floating in space. This second body-model is the locus of the phenomenal self" (p. 59), which has been mistakenly given the attributes that most of us attribute to the soul. Moreover, this mistaken attribution has been around for several millennia.

are located, timed and described adequately.

Two of the most important 1st person experiences are the experiences of *pain* and the *orgasm* or *pleasure*, which can be experienced in a variety of ways, including the following: dismemberment of the body or sudden relief of pressure generally in the form of a bodily fluid (e.g., urine, feces, semen, blood, vomit, bile, and vaginal fluids); the abundance of stimulation to some region of the body (e.g., excessive bright lights presented to the eyes or sound waves to the ears, rubbing the lips, labia, penis, sphincter etc.); and the penetrating or absorbing into the body, especially parts through which consuming and excreting do not frequently take place. Moreover, pain and pleasure can be experienced just as if they result from any or all particular sensory modalities.

Perhaps in its most general sense we can associate *pain* with the behaviors of "fight and/or flight" or defending oneself with evolved mechanisms against the other or others (e.g., via the utilization of adrenaline) and escaping (i.e., moving away from some other/s); whereas the *orgasm* is associated with pleasure mechanisms (e.g., the usage of dopamine and endorphins, although some recent research suggests the role of pain with dopamine; see Cadoni et al. 2003) and gently becoming closer to the others (i.e., moving toward some other/s rather than distancing oneself from or striking at the other).

The evolution of species via natural selection¹⁵ happened first, i.e., in relation to kin selection, sexual selection, and artificial selection, which took place respectively, and they occur simultaneously with natural selection when they are instantiated. Sexual

¹⁵ Natural selection always occurs (i.e., the red queen hypothesis is true), and it takes place in its most obvious form whenever an environmental change happens such that the <u>variance</u> amongst members of a species naturally give some individuals a slight advantage in relation to <u>surviving</u> and <u>reproducing</u> more efficiently within a particular environment, and other individuals tend to <u>die</u> more frequently as a result of their detrimental characteristics, which tends to lead to generations that have inherited many advantageous characteristics. Moreover, survival, death, reproduction and variance (i.e., variance that allows for characteristics to be genetically passed along to offspring with only slight differences) are four necessary conditions that create a sufficient condition for a sound argument for the evolution of species.

selection involves *Bateman's principle*, which is the thesis that the gender that invests the most time and effort into the production of the offspring becomes the most limited gender for which the other gender competes in relation to choosing a sex partner (i.e., typically the female chooses the next generation and the males compete against one another since the production efforts are quite great during the gestation period and between birth and before weaning). Overall, the evolutionary process functions as a result of variance and selection, and variance is said to be random, which means, according to Darwinians, it does not usually involve any improvement.

We may hypothesize that the occurrence of the *experience of pain* resulted first within the history of biological evolution via natural selection since the sexual organs and sexual reproduction did not evolve until long after pain would have been beneficial for the survival and *asexual reproduction* of organisms, and the experience of pain is associated with every sensory modality.

Since mammals and birds evolved from the first vertebrates, namely, jawless agnatha fish (Janvier, 2003; Donoghue & Purnell, 2005), which later evolved into amphibians, and then reptiles (i.e., species which lay their eggs upon the land and directly evolved after amphibians), and finally into birds and mammals (Kahle, Leonhardt & Platzer, 1991), and since all of these vertebrate species reproduce sexually, all these species, including *Homo sapiens*, have been greatly affected by the processes of sexual selection, especially the latter categories of animals, i.e., humans amongst which the *females typically choose the next generations* (i.e., with the exception of incidences, such as rapes, which result in pregnancy and reproduction instantiated by the offspring).

We can therefore assume that the ability to utilize sarcasm was brought about via

the processes of sexual selection and coupled with natural selection. So, females chose the characteristics that enable humankind to utilize this form of meta-cognition (i.e., the recognition of sarcasm involves the interpreter thinking that the expresser does not think that her own expression is sincere), which is more sophisticated than the recognition of metaphors, for instance. Sexuality is thus an incredibly important concept related to sarcasm, but it is only sometimes explicitly such.

The last point that I shall make within this preliminary investigation of consciousness is the fact that *dreams*, *illusions* and/or especially *hallucinations* that occur amongst members of other species must be *induced* and then *measured* and *systemized* in order for us to understand the sophistication of the mental contents of other species (i.e., whether they experience illusions, hallucinations, or anything phenomenal in the Husserlian sense). This involves inducing hallucinations so that individuals perform actions in accordance with the hallucinations rather than the environmental stimuli. Inducing hallucinations would demonstrate that individuals of different species, which act appropriately to these hallucinations, have *private mental contents* and *intentionality* with which they possess a sort of privileged access that is a domain of the modality of some sensory apparatuses from which the hallucination is derived.

For instance, if we induce a type of auditory hallucination within a bat, we can determine to some extent that the bat is conscious of an inner world within the auditory domain, although the experience of the bat may be similar to that of the synesthete. If we could induce an electroreception hallucination (i.e., electroreception is the perceptual ability to sense electrical impulses for the purpose of electrolocation and electrocommunication) within a platypus and different species of sharks, then we may

discover that many species are consciously aware of various aspects of the universe of which we are generally ignorant. As a more practical application, we may indeed discover new ways with which to view our world based upon our knowledge of the types of experiences undergone within species with very different sensory modalities.

The relevant philosophical principle here is that *if* the individual is aware of something illusory or hallucinates and behaves according to the illusion or hallucination, as opposed to the actual environmental conditions, *then* the individual has very likely acted in accordance with a type of mental contents and intentionality of which it is privately aware, to which it has privileged access, and with which an experience of the 1st person is performed. This is consistent with the fifth assumption of contemporary philosophy of mind and would suggest that the individual has a mind of some sort.

One may inquire whether it is possible to know that one has indeed induced a hallucination. The same principle by which we understand hallucinations in humans can apply to other species (i.e., by observing the individual behaving in relation to some inner world (Jaspers, 1913), which is "die Innenwelt" and directedness of consciousness toward some object/s from some aspect) rather than reacting to the environmental stimuli in which case the reaction would probably be different (i.e., acting upon the basis of some sort of false belief about the status of the environment, which is "die Umwelt").

Determining these sorts of factors in various species will give us a clue regarding the status of the evolutionary history of consciousness. The principle behind the technique for performing such experiments was explained by Daniel C. Dennett in 1978, and they are called "false-belief tasks," but I shall return to an explication of these topics within the biological sciences after such techniques are explained in relation to the field

from which they originated, namely, social-cognitive and developmental psychology.

Overall, a set of facts about consciousness can be extracted from the decades of research associated with this interesting topic. The following six characteristics and four questions were discussed during a Mind Science Foundation lecture in San Antonio, Texas and presented by Christof Koch in 2009.

- Consciousness is associated with incredibly complex networks of neurons with adaptive features.
- (2) No externally observable behavior is necessary for the instantiation of consciousness, so dreaming, for instance, is a state of conscious experience in which one can be conscious of the fact that one is dreaming (i.e., with lucid dreams; Windt & Metzinger (Barrett & McNamara, 2007).
- (3) Consciousness need not be accompanied with self-consciousness or language.¹⁶
- (4) In humans, consciousness can take place within a single hemisphere of the brain, and after a corpus callosotomy (i.e., when the corpus callosum is severed in order to reduce epileptic seizures, for instance), the individual can actually experience two independent and different streams of consciousnesses (Myers & Sperry, 1953; Lohrey, 1997 p. 204; Koch, pp. 287-294).
- (5) The damage of some portion of the brain interferes, reduces and/or changes

Reporting different states of consciousness is irrelevant, even if the reporting comes from the conscious organism, because reports can be false (Jaspers, 1913), which is why the reports of blindsighters are not explicitly argued to be facts such that blindsighters can retain the abilities to see from certain areas of their visual fields without the accompaniment of visual consciousness in the particular regions of their visual fields. Moreover, consciousness here is not exclusively human consciousness.

the content of consciousness.

With these five characteristics taken as objective facts about consciousness, philosophical analyses wrought by those partaking in consciousness studies, such as philosophers of mind and neuroscientists, are attempting to discover what the sufficient neural mechanisms are for any particular conscious experience to arise; this is the NCC project (i.e., Neural Correlates of Consciousness). The assumption here may be appropriately labeled:

(6) Every Conscious perception is accompanied by a particular correlation within the brain.

The latter assumption either challenges or sheds new light upon the following enigmas that scientists and philosophers are attempting to answer with great difficulties.

- (A) What exactly is the minimum brain size necessary for consciousness? For example, bees can be trained to follow only red or green lights, and they contain less than one million neurons within their brains.
 Scientists argue that they possess facets of phenomenal consciousness.
- (B) Does the accompaniment of consciousness require a body, or is it possible to have a conscious experience without a body? For example, can we preserve an eternally dreaming and/or communicative brain in a vat in the Cartesian sense?
- (C) If the same functional relationships are instantiated within another type of system (i.e., a non-organismal system, like a computer), can consciousness still be instantiated? Can we preserve our conscious minds by uploading them onto computers as our bodies deteriorate via

the aging processes?

(D) Is consciousness an emergent property, such as certain chemical reactions that take place only when the necessary and sufficient chemicals are presented in combination, or is conscious experience foundational? That is, is consciousness present within certain isolated parts of the system, or does consciousness arise as solely a summation of the parts' properties of the system? Or are there other options available for our theoretical framework?

I.iii. Philosophy's Relation to the Sciences of Mind

The realm we refer to as "science" generally poses far easier questions than philosophy—questions that we are able to structurally systemize and those that lead us to answers via the implementation of techniques, methodology and experimental analysis with the aid of descriptive and inferential statistics, although the framework from which answers are derived are all philosophical (i.e., the physical questions are understood within deeper metaphysical vantage points). Conversely, philosophy responds to the most challenging questions that remain unanswered after experimental analysis has presented us with results. Philosophy raises questions to which we do not know the answers, and we do not even know how to appropriately attempt to answer these most challenging questions, such as how an experience can arise from the neural activity in the brain (i.e., the "hard problem" in philosophy) or why what we call "voluntary behavior" exists at all, which involves the metaphysical debate about determinism versus free will.

Moreover, these philosophical inquiries guide science in various directions in order to test the rational possibilities, which theoretical analysis has yielded via rationality and logic.

Thomas Metzinger argues (2003) that there are two great problems challenging philosophers and scientists. The first problem arises when scientists do not theorize enough, and so they risk collecting quite useless data, although their discoveries are often factual in these cases. The related problem quite often involves philosophers who attempt to theorize about concepts concerning the sciences and perception, and these theoreticians ignore scientific data that is intimately connected with these concepts.

Metzinger solves these reoccurring problems with which philosophers are continuously confronted by consulting with the world's leading neuro-cognitive scientists through programs, such as the Mind Science Foundation. These sorts of multidisciplinary approaches are necessary for the purpose of saving scientists and philosophers from expending gratuitous loads of time, energy and money. Perhaps future funding for research will take these facts into consideration and support universities' interdepartmental relationships amongst empiricists and philosophers financially, and this is what I encourage in this dissertation, namely, that *multidisciplinary approaches to subject matters are superior*.

Francisco Carroyo Miguel Angel Cevallos argues within his book, *La Logica De Las Ciencias* (i.e., *The Logic of the Sciences*, 1965): philosophy is a theoretical compilation of "cultural values, an axiology (of axioms, values and logical treatise) of the human culture . . . One can conclude: the philosophy is a science of the great production

for mankind; it is an axiological anthropology" (p. 31).¹⁷ Cevallos expresses earlier within his Latino philosophy that the word "culture" originates from acts of "cultivating the field" (i.e., *cultura agri*), and thus philosophy as a set of axiomatic cultural values and logical treatise is derived from the science of agriculture (p. 27).

Philosophy and sciences, such as psychology, are and ought to be overlapping in their disciplines. Theoretical stances in philosophy are utilized and tested by psychologists, and empirical examples constantly arise in the various fields of philosophy, which are becoming ever more narrowly focused, even concerning cognitive brain research. For example, a 2008 article by Philip Gerrans (a philosopher) and Valerie Stone (a neurocognitive psychologist) in the British Journal for the Philosophy of Science titled, "Generous or Parsimonious Cognitive Architecture? Cognitive Neuroscience and Theory of Mind," considers the philosophical significance of the ability to attribute different mental states to people as well as the scientific investigation of this ability with a background in cognitive neurology.

With the aforementioned relations between science and philosophy in mind, allow me to present what I interpret as a turning point in the theory of mind literature, which was spurred by a philosopher, Daniel C. Dennett, and led to innovative experimental techniques.

Experiments Measuring Belief Attributions and Action Predictions

In 1978 Premack and Woodruff published an article titled, "Does the chimpanzee have a 'theory of mind?", which raised the question about whether the chimp mind

¹⁷ A special thanks is appropriate for the Vargas family for allowing me to translate sections of this book within their home in Mexico.

functions like the human mind to the extent that implicit assumptions are made about the behaviors of others that are determined by the beliefs, intentions and desires attributed to them, which facilitates predictions of behaviors. This study and others concerning the ability of chimpanzees to deceive other individuals and understand deception are open to much interpretation (Byrne & Whiten, 1988; Heyes, 1998; Povinelli & Bering, 2002). These studies have reported that the chimpanzees' minds are incipient in relation to their Theory of Mind capabilities, whereas monkeys have not demonstrated any evidence of the capability to attribute mental states to others.

In response to Premack and Woodruff, Daniel C. Dennett's article "Beliefs about Beliefs" (1978) presented the idea of a test that would allow psychologists to demonstrate the acquisition of theory of mind on the basis of a false belief. Dennett argued that a true belief would not allow the psychologist to determine whether the subject behaved in accordance with one's own beliefs or in accordance with reality. For example, if a cat is hiding under a bed, and a child runs over to the bed and peeks there, it is impossible for an observer of the child and cat to distinguish whether the child acted in accordance with the actual location of the cat since it was indeed underneath the bed, or whether the child acted this way because she believed that the cat was there. ¹⁸

So, inducing a false belief, and recognizing from a third-person perspective (i.e., the psychologist or observer of the observer) that the observer of the child and cat has veridically attributed the mental states to the child, must involve the same situation without the cat underneath the bed, for instance. This requires a situation during which the child believes the cat is underneath the bed when in fact it is not, which is all wrought by the experimental setting or merely performed theatrically in order to observe the

¹⁸ The same basic principle is applicable for the induction of hallucination within members of other species.

observer's sophistication level via Theory of Mind tasks.

During 1983 an innovative experimental paradigm was created and conducted by Heinz Wimmer and Josef Perner, which involves a *false belief task* consistent with Dennett's ideas and provided a new technique for the discipline of social cognition in relation to deceptive reasoning. The original paradigm began as an experiment designed the following way for a child subject to observe.

A boy named Maxi has some chocolate that he places into a blue cupboard. After Maxi leaves the room his mother walks into the room and places the chocolate into a green cupboard. Maxi returns to the room in order to get his chocolate.

Control questions are given to the child who has observed the mentioned events. Where is the chocolate actually? Where did Maxi place the chocolate before his mother came in the room? **ACTION PREDICTION QUESTION:** Where will Maxi look for his chocolate? He will probably look in the blue cupboard first because he has a false belief that the chocolate is there because it is the last place that he set it.

BELIEF ATTRIBUTION QUESTION: Where does Maxi believe the chocolate is? He believes the chocolate is in the last place that he put it. Healthy 3-year-olds without disorders, for instance, answer both action prediction and belief attribution questions incorrectly, although interestingly, they stare at the blue cupboard longer than the other cupboard when Maxi returns into the room, which can be interpreted as a more rudimentary development and prerequisite of Theory of Mind abilities, i.e., expectation.

Children of various age groups answer these questions after observing Maxi and his mother. Psychologists have been searching for the ages of development in normal children and those with disorders, like autism, in order to discover the associated brain areas for ToM mechanisms, the differences amongst normal kids and those with

disorders. It may be claimed that the lack of the abilities to perform such tasks as false belief tasks describe greatly what the functional aspects of the disorders really are as opposed to the structural aspects, which may include late developments of neural pruning, brain damage and the like. There is also a practical purpose for this type of experimentation concerning legal studies so that the jury and judge know at what age groups certain types of intelligence and recognition of deception are instantiated when children testify under oath or become crucial parts of cases.

Overall, false belief tasks are incredibly important in both theoretical and practical ways, although there still appear to be some fallacious accounts concerning the Cartesian mechanistic view of the brain in relation to psychologists claiming that certain localized regions contain a ToM module, which involves the *fallacy of generalization* about a correlation between brain functions, physiology and behaviors that denote ToM (e.g., actions in false belief tasks) with respect to a miniscule portion of the population (i.e., only those who have been observed within laboratory settings).

I.iv. Mentalizing and Sarcastic Reasoning

Theory of Mind (ToM¹⁹ or mentalizing hereafter) is not a theoretical description of the mind.²⁰ It is a phrase used by cognitive neuroscientists to describe the "ability to attribute beliefs, perceptions, knowledge, pretending, intentions and desires to oneself

Other names for ToM include mental state attribution, Machiavellian intelligence, mental state concepts, metarepresentation, mind-reading, intuitive psychology, folk psychology, common-sense psychology and some use the term "metacognition" and "mentalizing" to mean "ToM." The phrase "theory-of-mind" was coined by Premack and Woodruff (1978), whereas "folk psychology" or "belief-desire psychology" were phrases translated from Wilhelm Wundt's work during the early 20th century.

²⁰ Here I mean B-description, which is "that which is being described" rather than an A-description, i.e., "that which describes." I shall utilize these concepts within a following chapter on metaphysics.

and others and to understand that one's own mental states²¹ differ from others."

Whenever an individual utilizes ToM, this individual's knowledge involves the belief that at least two people could differ in virtue of what they know (Savage-Rumbaugh & Lewin, 1986). ToM is the ability to predict and explain the behaviors of others via the attribution of independent mental states (Gallagher & Frith, 1977). Moreover, Premack and Woodruff (1978 p. 515) describe the achievement of ToM when "the individual imputes mental states to himself and others, (either to conspecifics or to other species as well), these states are not observable and can be used to make predictions about the behavior of other organisms."

Social Cognitive Abilities: From 3-year-olds to 3-month-olds

This section illustrates some of the plausible prerequisite skills necessary for mentalizing. It should be recognized that the skills developed by the younger infants are necessary in order for the psychological abilities of older children to be exercised.

It is argued by Frith and Frith (2003) that the ToM system probably begins functioning around the age of 18 months in humans. They cite examples of 3-year-olds being able to tell the differences between mental and physical entities, such as when one character is described as having a biscuit and the other is only *thinking about* a biscuit (Wellman & Estes, 1986); these 3-year-old children understand and can explain which biscuit can be eaten. Frith and Frith (2003) explicate that 3-year-olds utilize their language skills in order to refer to mental states in examples such as the following, which was spoken by a three-year-old: "I *thought* it was an alligator. Now I *know* it's a crocodile" (Schatz et al. 1983).

²¹ Other mental states include purpose, thinking, trusting, guessing, wanting, doubt and deceit.

Two-year-olds use words such as *pretend*, *wish* and *want*. It has been maintained that 3-year-olds also have very rudimentary understandings of mental states in relation to the differences between guessing, knowing and thinking. It is not until the age of three during normal development that one can tell that different individuals looking at a different side of a card or magazine, for instance, see different pictures (i.e. the picture on one side from one perspective versus another) (Flavell et al. 1981); moreover, 3-year-olds realize that only the person who looks inside a box recognizes what its contents are, whereas another individual who has not peeked into of the box does not know what the contents are (Hogrefe et al. 1986), although varying the context and communication can lead younger children to recognize these facts about another individual's knowledge.

Interestingly, 2-year-olds often actively direct their mothers toward some object when the object has been placed somewhere else that is different from the previous placement in which the 2-year-old last experienced the object to be while the mother was present (O'Neil, 1996). There is plausibly a practical understanding of this sort of logical reasoning about mental states within infants at the age of 18 months.

For instance, the infants in an experiment conducted by Poulin-Dubois et al (2003) gazed longer and expressed surprise after they witnessed a woman point to the incorrect placement of an object directly after she witnessed another person place the object somewhere else, but the 18 month old infants did not express surprise and did not look longer when the woman was unable to observe the placement of the object.²²

²² This experimentation plausibly involves two types of deception from the perspective of the infant in which the prior case involves a woman potentially deceiving some other person into believing that the direction of the object is somewhere it is actually not (i.e., a deceiver is present and the infant gazes longer at the potential deceiver), whereas the latter case involves the deception of the woman in relation to where the object resides. The idea in the latter case is that the woman believes the world to be a certain way, but her beliefs are incorrect, and she is deceived by her own beliefs into acting a particular way, which is more common and seemingly less interesting for the infant. Keep this in mind while reading the next chapter.

Eighteen months is a time period in human development that marks the end of infancy and during which learning takes place very quickly. The child realizes when the mother is naming an object within the child's hand for the purpose of teaching the child language and vocabulary, and, indeed, learnt accidental sounds and object associations (i.e., errors in which the child learns mistaken words for the names of objects) occur rarely.

It has been argued by Leslie (1987 & 1994) that pretending and the understanding of pretense is a sign that ToM is instantiated. Leslie's (1987) example involves a mother picking up a banana and pretending to use it like a telephone; the children at 18 months laugh and do not become confused about the different functions of telephones and bananas. It is argued that the prevention of confusion involves the infant's ability to represent the mother's attitude toward the banana. Leslie proposed a psychological mechanism called "decoupling" to separate *real event representations* from *representations of thoughts that are unnecessary in reference to such real events*.

Woodward et al (2001) illustrates that the gaze of an adult and pointing gestures, for instance, with the presence of some expression of a positive emotion (i.e., facial behaviors like smiles and raising the eyebrows) result in an incipient understanding within the infant that there is a relationship between the object and the person and, furthermore, in the prediction of infants of about 12 months old to utilize this information to predict that an adult shall reach or grasp the object (Phillips et al. 2002).

From the age of approximately nine months and older the infant apparently expects "goals" to be accomplished in the most efficient manner; thus, when certain obstacles are unnecessarily approached before some other task, which is the goal at hand, the infant again expresses surprise and gazes longer at the individual. Frith and Frith

(2003 p. 461) argue that "this demonstrates that they (i.e., 9-month-old infants) can separately represent goals of agents and the means used to reach the goal. The ability to represent goals and the ability to reason 'rationally' are likely to be an important prerequisite of the ability to represent intentions."

Spelke et al. (1995) and Woodward (1998) maintain that 6-month-old infants can express the difference between mechanical and biological movement. For instance, infants at 6 months express surprise when a mechanical or self-propelled object moves on its own but not when a person moves (Spelke et al. 1995). Woodward (1998) illustrates that infants express the expectation that human hands will continue to reach for an object of desire even when the location of this object changes and an object that is easier to reach is placed in front of the person, whereas when the 6-month-old infant observes a mechanical rod in place of the hand, the expression of this expectation is not present. Frith and Frith (2003 p. 461) maintain that this "distinction between biological and mechanical movement is probably another prerequisite for the understanding of intentions"

From 3 months of age infants are attracted more to eye movements and more toward people rather than other objects, and self-propelled objects are tracked by infants at 3 months. Moreover, the light patterns involved when a person walks are more interesting for infants at 3 months than random light patterns or random movements (Berthenthal et al. 1984).

The experimental observations illustrated here suggest that infants from about 18 months are able to mentalize, but this is not the case for younger infants since the ability to represent an individual's visible goals is much less complicated and less sophisticated

than the ability to attribute mental states because mental states are invisible to those who do not have privileged access to this private information. However, it should be noted that there is a mental aspect in relation to "goals" within the aforementioned experimentation, which is apparent in relation to the instantiation of these tasks by machines versus humans.

Social Cognitive Abilities: Adolescents and Adults

The latter descriptions of ToM include complex forms of reasoning that must *precede* a 2nd order acquisition of ToM, which is practicing the ability to model a second person's beliefs, intentions, perceptions and knowledge about a third person's mental states, for instance. ToM is an ability automatically utilized, and the explicit ability is attained by humans during normal development around the age of four or five years old in some of its most sophisticated functions, such as telling believable lies and recognizing why individuals hold false beliefs when they have been deceived by somebody or have not observed something change that actually has changed.

Sarcastic and ironic reasoning skills are forms of deceptive reason that require at least what is called a 2nd order ToM in order for the sarcasm or irony to be recognized (e.g., a type of recognition ability in which the interpreter realizes that the expresser does not expect the interpreter to believe that the expression was believed by the expresser). Sarcasm, therefore, eludes many individuals who are placed in the inevitable position of either misinterpreting (e.g., interpreting the sarcasm as a lie instead) or ignoring or recognizing the sarcasm. 2nd order mentalizing skills involve metarepresentation, and the ability, for instance, to model what a second person knows about what a third person

knows. Usually the recognition of sarcasm involves 3rd or 4th order levels of ToM during which the interpreter must *model* what the <u>expresser believes</u> about what the <u>interpreter believes</u> about what the <u>expresser believes</u> (3rd order) about what the <u>interpreter recognizes</u> (4th order, which shall be described in the next section as the interpreter modeling EbIbEbIrw in short form), for instance.

4th Order ToM with Young Socrates and Gorilla Sign Language

Take the following example into consideration. The scene is in ancient Apollonia, which is now Sozopol, Bulgaria by the Black Sea. Socrates is almost an adolescent.

Diogenes of Apollonia repeats the words of his first treatise: "It appears to me that he who begins any treatise ought to lay down principles about which there can be no dispute, and his exposition of them ought to be simple and dignified" (Yonge, 1853).

Socrates: Before you describe to me our anatomy in even more detail, should you first cut yourself open and determine whether what you are saying is true? You should, right?

Diogenes: If I were to do that, then the people would describe you as being very clever since you are my student.

Socrates: Yes, but the people of Athens already regard you as being "MAGNIFICENT" because of your outspoken views concerning your favorite gods.

Diogenes: Socrates, my young boy, do you think that flattery will benefit you more than

sarcasm?

Diogenes of Apollonia (approximately 460 BCE) actually wrote about human anatomy in relation to the circulatory systems, for instance. Diogenes was unwelcome in Athens because of his unorthodox views concerning the gods. He may have been an atheist

The example here illustrates a 3rd order ToM if, for instance, *Socrates believes* that Diogenes does not believe that Socrates believes that Diogenes should cut himself open in order to illustrate his points about the circulatory system. Moreover, if Diogenes believes that Socrates believes this meta-meta-belief, then we have an example of a 4th order ToM and a meta-meta-meta-belief. Interestingly, this is formed without the accompaniment of any true statements on behalf of young Socrates and Diogenes. This requires mind-reading, which is prolific amongst sarcastic speech.²³

Another example of a meta-meta-belief is quite easy. I believe that my friend Mitko believes that my friend Patricia believes that my friend Chris believes that I am working on my dissertation for Sofia University, and this meta-meta-meta-belief of mine may be solely descriptive of my own beliefs. Descriptions simply become more complicated whenever meta-beliefs are numerous in their ordered levels and are just concerning, say, two individuals. Moreover, we are concerned here with mind-reading skills, which involves an expresser saying something that she disbelieves and the interpreter believing that the expresser disbelieves what the expresser has expressed (i.e.,

²³ According to Boxer (2002 p. 121), the vast majority of responses to sarcasm involve saying nothing (i.e., 71% of responses), and responding to sarcasm with sarcasm, as opposed to laughter and/or a literal response, happens quite rarely (i.e., < 1%; see also Nelms, Attardo & Boxer, 2000); this research focuses on the relation between professors making sarcastic remarks to students.

in its simplest form). The opportunity for error is quite great, so why is it not absolutely and phenomenally amazing when we get these facts right?

For how could we know that somebody's thoughts have been read as opposed to just the lips and words, for instance, if the expresser merely stated something that the expresser believed and the interpreter took the expression as being descriptive of the expresser's beliefs? We are interested here in situations in which somebody can express something in disbelief, something irrelevant or the like, and in which case the interpreter is still able to recognize what the expresser believes, although the expresser's beliefs differ from his or her sentential meanings. Our principle concerning the attainment of knowledge about an interpreter mentalizing in response to a sarcastic expresser is, thus, the same as the principle of the attainment of knowledge in relation to the aforementioned false belief task, and it also involves the concept of false belief or disbelief.

I shall explain briefly what I mean by recognition (r) of the non-literal wordings (w) by either the expresser (E) or the interpreter (I). The same principle for speech is utilized both here and by Dennett within his analyses of "beliefs about beliefs" because, like the false belief held by the child that "the cat is underneath the bed," the interpreter and expresser must recognize the potential for a false belief arising since what is being expressed is disbelieved by the expresser, and this latter fact must be remembered by the expresser (i.e., EbErw, which means that "the Expresser believes that the Expresser recognizes the (non-literal) wordings") in order to form higher level cognitive beliefs that often describe sarcasm, exaggerating and joking (e.g., EbIbEbIrw is "the Expresser believes that the Interpreter recognizes the non-literal wordings").

The idea here involves the assertion that the logical possibilities must be represented in virtue of the neural correlates (i.e., assumption (6) within the consciousness section), and understanding these categorizations is necessary in order for higher-level metacognition to be appropriately described neurologically and functionally from a behavioral, developmental and practical perspective. The graph on the following page illustrates the most fundamental beliefs that arise in relation to a single interpreter and expresser while the expression of some non-literal speech is uttered (e.g., sarcasm).

There are six major categories here in which the interpreter recognizes the nonliteral wordings, does not recognize it, or in which case the interpreter is undecided (i.e., unentschieden), which is a concept that I shall explain in more detail in relation to my translations of Ludwig Wittgenstein's *language games* in the following chapter.

Respectively, these foundational categories are "Irw," "—Irw" and "?(Irw v —Irw)," but the latter characterization is considered to be undecided rather than a tautological assertion about the belief of the interpreter in relation to the non-literal wordings. The reason for this involves the idea that one may be uncertain about the recognition status of the nonliteral wordings, but this cannot be expressed as tautologically true (i.e., (Irw v —Irw)) or as an inevitably false contradiction, namely, —(Irw v —Irw). Thus, the "?" functions as an "undecided" quantifier for logic.

The remaining three categories involve the recognition of the expresser's own non-literal wordings (i.e., Erw), when it is not the case that the expresser recognizes them (i.e., -Erw) and the undecided nature of the situation (i.e., ?(Erw v -Erw) in which cases, respectively, the expresser may utter what appear to be nonliteral wordings, and the expresser may be a young boy who says something that would be interpreted by adults as

sarcastic, but he does not understand it fully, or he may not know whether it is ironic or not. Short-term memory plays an important role here as well.

	LEVEL ONE					
		O.L.				
Funda	Fundamental beliefs of Interpreter I and Expresser E					
dı	uring the expre	ssion of non-	literal wordin	gs		
	Irw Interpreter recognizes sarcasm (i.e., w) in four cases					
	ONE	TWO	THREE	FOUR		
	EbErw	lbErw	lblrw	Eblrw		
	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v		
Erw	¬(EbErw))	¬(lbErw))	¬(lblrw))	¬(Eblrw))		
	¬(EbErw)	¬(lbErw)	¬(lblrw)	¬(Eblrw)		
	EbErw	IbErw	lblrw	Eblrw		
	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v		
¬Erw	¬(EbErw))	¬(lbErw))	ר(lblrw))	¬(Eblrw))		
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)		
	EbErw	lbErw	lblrw	Eblrw		
?(Erw v	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v		
¬Erw)	¬(EbErw))	¬(lbErw))	((lblrw)ات	¬(Eblrw))		
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)		

This graph with propositional logic represents one of three parts concerning the recognition of some type of non-literal wordings with the example of sarcasm as a set of instances. Erw stands for "Expresser recognizes non-literal wordings"; in the latter case of both Erw and Irw there are twelve options by which Irw can also take place, which means "Interpreter recognizes non-literal wordings or sarcasm."

The middle category $?((EbErw) \lor \sim (EbErw))$ represented within three different cases for each column above means: "It is undecided whether or not the Expresser believes that the Expresser recognizes the non-literal wordings of sarcasm." Thus, E is unsure about E's recognition.

Columns ONE, TWO, THREE and FOUR are sets of belief and desire options related to the communication between the Expresser and Interpreter, E & I. Notice that any one of the 36 possible options (i.e., 12 above and 24 below) places a distinction between what the Expresser believes and what the Interpreter believes within only a few seconds of time. Each instance also creates a belief-reality distinction. For instance, the Interpreter believes that the Expresser recognizes his own non-literal expression and the Expresser recognizes his own non-literal wordings—this instantiates both truth in terms of correspondence theory and truth in virtue of the coherence theory of truth since whatever definition we give for the concept of "belief" the Interpreter believes the truth.

The length of any linguistic representations of sarcasm at higher cognitive levels must be explicated in symbolic logic in which case each letter and symbol represented within the graph above needs further explanation in order for a description to portray a single instance of sarcasm. A typical example of sarcasm spoken by adults would best be described within the 4th level of ToM cognition. The 1st level of ToM cognition is

graphed above, which is the basis by which a sarcastic statement can be understood, if the social cognitive skills of both the Expresser E and Interpreter I are at Level 2 or higher (i.e., it ranges possibly to the 6th or 7th Level of mentalizing, e.g., IbEbIbEbIbEbIrw).

	¬Irw Interpreter does not recognize sarcasm in four scenarios			
	ONE	TWO THREE		FOUR
	<u>EbErw</u>	IbErw	lblrw	<u>Eblrw</u>
	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
<u>Erw</u>	¬(EbErw))	ר(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(IbErw)	¬(lblrw)	¬(Eblrw)
	EbErw	lbErw	lblrw	Eblrw
¬Erw	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
	¬(EbErw))	¬(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)
?(Erw v	EbErw	IbErw	lblrw	Eblrw
¬Erw)	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
	¬(EbErw))	ר(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)

Consider the Expresser E in the case <u>Erw</u>. E recognizes her own non-literal wordings as represented in one category. Let us say that she believes that <u>Erw</u> and <u>Irw</u>. The graph above describes only the cases in which it is not the case that the Interpreter recognizes the non-literal wordings, so she is incorrect in relation to her latter belief that <u>Irw</u> (i.e., <u>EbIrw</u>), although she correctly believes in her own recognition (i.e., <u>EbErw</u>).

	?(Irw v ¬Irw) Undecided Interpreter of sarcasm			
	ONE	TWO	THREE	FOUR
	EbErw	IbErw	lblrw	Eblrw
	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
Erw	ר(EbErw))	¬(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(lbErw)	¬(lblrw)	¬(Eblrw)
	EbErw	IbErw	lblrw	Eblrw
	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
¬Erw	¬(EbErw))	¬(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)
	EbErw	lbErw	lblrw	Eblrw
?(Erw v	?((EbErw) v	?((lbErw) v	?((lblrw) v	?((Eblrw) v
¬Erw)	ר(EbErw))	¬(lbErw))	ר(lblrw))	¬(Eblrw))
	¬(EbErw)	¬(IbErs)	¬(lblrw)	¬(Eblrw)

:The preceding graph is the set of cases in which it is not the case that the Interpreter recognizes the Expresser's non-literal wordings.

In relation to first and second order ToM skills there is an ongoing debate about whether there is a neural mechanism that allows such a skill in some localized area of the brain. For instance, neuroimaging results have led some researchers to conclude that the temporoparietal junction (TPJ) has a "domain-specific cognitive system²⁴" organized specifically for ToM. Such arguments may appear to fall under the guise of the fallacious Cartesian mechanistic view of the brain and fallacy of generalization, although it should be stressed that there are areas of the brain in which the structures are much more complex than other regions, and the former regions, therefore, would enable more sophisticated behaviors with the necessary functioning neural networks. One question is whether we could localize this function of ToM related to such cases as false-belief tasks versus false-photo tasks, for instance.

Moreover, inquiries may arise about whether such neural networks responsible for mentalizing could actually be instantiated in other functional areas of the brain after brain-related injuries have destroyed the general areas typically responsible for the combined functions that produce mentalizing. In other words, how well could neuroplasticity and neurogeneration function in relation to regaining meta-recognition skills for irony, sarcasm and lying? Gerrans and Stone (2008) argue that correctly responding to false-belief tasks need not necessarily require a domain-specific mechanism and argue that the most recent neuroscientific evidence does not support any

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Low-level domain-specific systems develop very early during a baby's lifetime and include gaze tracking, joint attention, animacy detection, and the recognition of the expression of emotions, whereas domain-general systems develop much later in life and include attention, executive function (i.e., ordering or inhibiting and allowing the flexible control of the attention span), natural language, metarepresentation, recursive embedding and working memory. Domain-general cognitive systems process data without the restriction of some specific representational layout. For instance, the auditory system can generally only process information concerning sound waves and vibrations, but the processes involved with attention can focus on the sense of balance, vision, olfaction, gustation or very high-order representations, such as those involved with recognizing sarcasm.

implications of a ToM mechanism or module localized in some specific component of the brain

Research concerning sarcasm must involve even greater mentalizing skills than those skills necessary for the new experiment augmentation because sarcasm often involves more meta-representions (e.g., beliefs about meta-meta-beliefs). Thus, the goal of psychology in relation to social cognition, deception and ToM is to measure the cognitive sophistication of subjects' understandings of challenging forms of sarcasm and lying after techniques are designed for such testing.

This early form of sarcasm that involves sarcastic expressions with the accompaniment of a belief during which the interpreter recognizes the sarcasm is very similar to pretending, although more sophisticated. Humans are not the only species that can pretend, i.e., in relation to the linguistic sense of the word "pretend," and some other species can assert false statements that are actually believed by the expresser to be false.

For instance, Koko the gorilla at Stanford University knows over 1,000 different signs in a type of American Sign Language called GSL, Gorilla Sign Language. Koko is able to "pretend" and does sometimes refer to herself as being a member of a different species than she actually is. For instance, she has told psychologists that she is really a bird while pointing to a picture of a bird and flapping her arms during conversations. During one instance the psychologists asked her if she is a bird, she responded that she is a "good bird²⁵." When she was finally confronted by the psychologist who said, "no, you are not a bird," Koko laughed, and the psychologist asked what she really is, and Koko responded that she is a "good gorilla."

 $^{^{25}}$ Note that the word "good" in GSL also means "yes," which makes sense either way in relation to the context of the conversation.

It is plausible that Koko knows both that she is a gorilla and she knows that the psychologists know that she is a gorilla as well. Thus, she is able to easily form beliefs about beliefs, i.e., metabeliefs. I am skeptical about whether Koko's most sophisticated ToM attributions are sufficient to allow meta-meta-beliefs; that is, *could* Koko model a 2nd person's beliefs about a 3rd person's beliefs? A stimulant and practice may be all that is needed, such as caffeine, and positively reinforcing any behaviors regarding a 2nd person's beliefs about a 3rd person's beliefs. However, it is questionable whether Koko knows that the psychologists believe that Koko believes she is a gorilla. That is, can she recognize simpler forms of sarcasm or irony and deception within speech? Could she have been raised to recognize these forms of language?

This scientific study about social cognition, which investigates the capability to attribute various different beliefs to others, began with the study of young children. In 1983 a new experimental paradigm created by Heinz Wimmer and Josef Perner involved a simple false belief task consistent with Daniel Dennett's ideas in his 1978 article, "Beliefs about Beliefs." This paradigm provided a new technique for the discipline of social cognition and deceptive reasoning. Moreover, it is important to understand the structure, methodology and inferences that psychologists make in order to rationally argue about the status of mentalizing and mental states.

FALSE BELIEF TASKS: The original paradigm began as an experiment designed in which a boy named Maxi has a desired object that he places into something. After Maxi leaves the room his mother walks into the room and places the object in another place (i.e., plausible deception). Maxi returns to the room in order to get the desired object. At some point the subject of the psychology experiment (i.e., healthy

children between 3 and 6 years old, for instance) is asked an action prediction question: where will Maxi look for this object? The subjects are asked a belief question: Does Maxi believe that the object is in the new location or the original location? Younger children (i.e., roughly all three and even many four-year-olds) answer both action-prediction and false belief questions incorrectly by claiming that Maxi believes the object is at the new location and Maxi will look for it there (Wellman, Cross & Watson, 2001; Wimmer and Perner, 1983; Hogrefe, Wimmer & Perner, 1983).

Baron-Cohen, Leslie and Frith (1985) presented good evidence that autistic children are impaired in relation to children without disorders and those with Down Syndrome on developmental, nonverbal false-belief tasks for ToM. A variety of experiments based on this paradigm (Baron-Cohen et al. 1985; Perner et al. 1987) concluded that children approximately 4 years old, but not younger, begin understanding such situations, behaviors, and beliefs involved in the experiment about Maxi's false beliefs. About 90% of the healthy and well-developed children who are 5 years old understood the scenario, and every child who was 6 years old in the studies understood the experiment. Avis and Harris (1991) demonstrated that these concepts are universal across other cultures.

Frontal variant Frontotemporal Dementia (fvFTD) and Mentalizing

Gregory et al. (2002) utilized 47 subjects in their comparative, experimental study in which 19 patients diagnosed with frontotemporal dementia (i.e., fulfilling the Lund-Manchester consensus criteria for this disorder; Neary et al., 1998), 12 with Alzheimer's disease (i.e., fulfilling the NINCDS-ADRDA criteria for Alzheimer's disease probability;

McKhann et al., 1984) and 16 were healthy control participants. All potential participants within the study were selected upon the basis that they were able to understand the role of language in relation to the tasks (i.e., individuals with semantic dementia or non-fluent aphasia were omitted). Moreover, 17 out of 19 fvFTD patients supplied Gregory et al. with recent MRIs, which were analyzed as well, and the caregivers of these patients completed Neuropsychiatric Inventory interviews.

The fvFTD participants scored significantly lower in comparison to the healthy control and Alzheimer's subjects on the first-order false belief test administered (i.e., 7 out of 19 or 37% showed deficits), but only one of the Alzheimer's patients scored less than perfect, and the control participants' scores were flawless.

SECOND-ORDER FALSE BELIEF TASKS: Perner and Wimmer in 1985 created a more challenging task requiring the attribution of one's belief about another's belief, and this task is called a second-order false belief task. For instance, a subject may determine that Daniel believes that Ludwig believes that something is the case.

According to Sullivan et al. (1994) the children who are 5 and 6 understand these tasks (Perner & Wimmer, 1985), but 4 year olds are not yet able.

The way in which these particular second-order false belief tasks are structured (Perner & Wimmer, 1985; Baron-Cohen, 1989; Gregory et al., 2002) is as follows:

Inside a room an individual sets some object in a place that is observed by a second individual, and then the first individual walks out of the room. The second person changes the location of the object, but unbeknownst to this second person, the first individual is peeking into the room and sees exactly where the object is placed.

The subjects who watch this whole scenario are then asked a *second-order belief* (ToM) question, which is, after the first person re-enters the room, for instance: *where*

will the second individual believe that the first individual thinks the object is?²⁶ In Gregory et al. (2002) 2 out of 19 of the fvFTD subjects could not even comprehend the idea of the second-order false belief task, so only 17 of them could complete this testing. 9 out of 19 of these fvFTD patients (i.e., 47%) incorrectly answered the questions or were unable to understand the task, but the remainder of them scored perfectly. Interestingly, 6 out of 12 of the Alheimer's participants answered the questions incorrectly in relation to these two individuals with one peeking inside the room in which the other individual resides and unbeknownst to the latter person.

The fact that the second-order false belief tasks are more challenging from a developmental, linguistic (i.e., more challenging to explicate) and from the perspective of disorders demonstrate that there may be consistent and proportional increases in neural activities that are necessary in order for higher-order ToM tasks to be skillfully accomplished.

According to Baron-Cohen et al. 1997, there is evidence that people with autism and Asperger Syndrome perform well on second-order theory of mind tasks, but these sorts of tasks only reach a developmental mental age level of approximately 6 years old.

FAUX PAS TESTING (Stone et al., 1998; Baron-Cohen et al., 1999a), like the first- and second-order theory of mind testing, is quite variable. Gregory et al. (2002) provided their subjects with 10 stories that included some type of social faux pas, whereas another 10 stories contained only minor conflicts and no faux pas. One example of a faux story (Gregory et al. 2002, appendix 1) is as follows:

²⁶ A third-order belief task question proceeds as follows: where will the second person believe that the first person believes that the second person thinks the object is placed? Therefore, the same situation can be devised in order to discover the sophistication level of subjects' third-order beliefs, but what do we conclude about individuals who may indeed get the second-order beliefs wrong but the third-order beliefs correct? Is this a conceptual and logical possibility? Would this not demonstrate some amount of error within the technique itself?

"Jill had just moved into a new apartment. Jill went shopping and bought some new curtains for her bedroom. When she had finished decorating the apartment her best friend Lisa came over. Jill gave her a tour of the apartment and asked 'how do you like my bedroom?' 'Those curtains are horrible', Lisa said, 'I hope you are going to get some new ones.'"

After the participants read the stories, and had them within their views to review, the participants were asked whether somebody had said anything that ought not to have been said, so the faux pas were identified at this point. If their answers affirmed that somebody committed a faux pas, then two questions were asked for clarity: (1) "Who said something she should not have?" (2) "Why shouldn't she have said it?" (3) "Why do you think she did say it?" (4) "Control question In the story, what had Jill just bought?" (Gregory et al. 2002 appendix 1). Compare this to the non-faux pas story (Gregory et al.):

"Jim was shopping for a shirt to match his suit. The salesman showed him several shirts. Jim looked at them and finally found one that was the right colour. But when he went to the dressing room and tried it on, it didn't fit. 'I'm afraid it's too small', he said to the salesman. 'Not to worry', the salesman said. We'll get some in next week in a larger size.' 'Great. I'll just come back then,' Jim said."

All of the questions asked afterwards were about the same, except for the control question, namely, "In the story, what was Jim shopping for?" The fvFTD patients demonstrated great deficits in comparison to the Alzheimer's subjects and control group. 14 out of 19 of the fvFTD patients showed impairments, whereas only 2 out of 12 of the Alzheimer's patients showed deficits (Gregory et al., 2002).

Gregory et al. (2002) maintain that first-order false belief tasks can be successfully accomplished by children between 3 and 4 years old. Second-order false belief tasks can be accomplished by children after the age 6 years, which demonstrates that they are able to maintain that another person holds false beliefs about some other

individual's beliefs. The understanding a faux pas develops between the ages of 9 and 11 years ("i.e., recognizing when someone says something unintentionally that they should not have said because it is meant to be confidential or could be hurtful" (Gregory et al. §. Methods; Baron-Cohen et al., 1999). Moreover, the attribution of mental states and complex emotional states from the recognition of facial expressions, and especially in relation to a rolling of the eyes or view of another's eye movements, is considered to be another "advanced aspect of ToM that emerges around the developmental period of adolescence (Gregory et al. 2002 § Methods; Baron-Cohen et al., 1997; 1999).

TEST FOR READING THE MIND FROM PICTURES OF EYES (Baron-Cohen et al. 1997; Baron-Cohen et al., 2001; Atsushi et al. 2002; Gregory, 2002): This portion of the ToM testing involves a photograph of 25 different people, encompassing the region of the face from just above the eyebrows to below the lower eyelids. Each participant must choose between two words that are descriptive of either feeling or thinking (e.g., upset versus disinterested). These sorts of tests do not require participants to recall what has been memorized, unlike the other tests which require short-term memory.

Moreover, certain types of ToM tests involving pictures of the eyes must not necessarily involve the language ability (Baron-Cohen, 1997; Atsushi et al., 2002). 8 out of 19 (42%) of the fvFTD patients showed deficits with this task and 2 out of 12 (17%) Alzheimer's disease patients showed impairments (Gregory et al., 2002). Individuals on the autistic continuum, who are high-functioning, have demonstrated only very minor deficits in relation to recognizing certain emotions from facial expression and recognizing gender within the eye region of the face (Baron-Cohen et al., 1997).

However, in 2001 Baron-Cohen et al. revised the "reading the mind in the eyes" test in order to improve the detection of the social cognition differences amongst healthy controls, high-functioning autism and Asperger syndrome patients. Improvements in such tests allow diagnoses of certain disorders.

Patricia Rockwell (2001) observed the eyebrows, eyes and mouths of forty different speakers uttering both sarcastic and sincere responses, and upon further analysis, with the assistance of trained coders, it was discovered that "only the movement in the mouth area significantly differentiated ratings of sarcasm from nonsarcasm" (p. 47).

Experimenters suggest a distinction between "affective or emotional ToM" and "cognitive ToM" judgments (Kipps et al. 2009; Shamay-Tsoory et al., 2006). For instance, the faux pas test is performed poorly on when there is damage to the ventromedial orbitofrontal cortex, which plays an important role in allowing empathy for others (Shamay-Tsoory et al. 2005b). The orbitofrontal region of the brain appears to be crucial for affective ToM tasks, such as the faux pas test, which involves feeling embarrassment for the other person, whereas the medial prefrontal cortex is important for cognitive ToM tasks.

Damage to the orbitofrontal area will hinder the individual's ability to identify emotional cues within facial expressions and emotional signals wrought by the voice, so the person loses the ability to recognize whether somebody is angry on the basis of tonal differences in the voice and facial expression (Hornak et al., 1996, 2003; Murphy et al., 2003). When an individual is thinking about herself in relation to others, in virtue of differences and similarities, the medial prefrontal cortex of the brain is very active

(Kelley et al., 2002; Ochsner et al., 2005).

The affective ToM ability is incredibly important in relation to social interactions. It would indeed be dangerous to lose these abilities since it destroys the capability of the individual to distinguish another person's anger directed toward one. The amygdala and the anteroventral insula also play important roles in the processing and ability of complex emotions to be perceived, such as fear and guilt (Adolphs et al., 1994 & 2002).

Overall, all of these features are crucial in relation to understanding sarcasm and irony, which may elicit any one or plausibly all of these different facets of the ToM abilities, which are affective or cognitive. Rockwell's (2001) experimentation merely illustrates that people often do not recognize cues involved within the eyes and the region surrounding the eyes, although different contexts would allow for sarcasm or irony to be readily detected in these regions. The ability to understand second-order, and most likely third-order, false belief tasks is required in order to understand sarcasm in which the intentions of the expresser are different from the expression performed, and understanding these intentions, which often refer to the interpreter's beliefs about the expresser's beliefs, is crucial to understanding sarcasm and irony.

Therefore, any sort of cognitive and/or affective testing and theoretical framework, concerning the beliefs of the interpreter about the recognition of non-literal wordings involved in sarcasm and irony, must take into account the complexity of prior methods, developmental leaps in understanding ToM tasks, disorders and diseases that affect certain regions of the brain and auxiliary factors (e.g., sleepiness, attention deficits, and disinterest in experimentation), which all complicate any theory of sarcasm and irony resulting from future theory of mind techniques that shall develop in more sophisticated

forms and which will inevitably test for the highest social cognitive and affective Theory of Mind abilities, namely, sarcasm and irony.

I.v. Theory of Mind Experimental Tasks

The "temptation resistance paradigm," which was created by Sears, Rau and Alpert in 1965 is utilized in such a way that subjects in psychology experiments (i.e., usually children) are given *the opportunity to disobey a psychologist* (e.g., by peeking at a forbidden object), and then they are given *the opportunity to tell a spontaneous lie* after they are asked whether they peeked. A set of more recent experiments²⁷ conducted by Victoria Talwar et al. (2007 & 2008) analyzes children from 5 until the age of 11 years. Talwar, Lee and Gordon (2007) argue that "lying" is the performance of theory of mind. Talwar et al. 2007 state that:

"Lying refers to the act by which one deliberately makes a false statement with intent to instill false beliefs into the mind of the statement's recipient (Lee, 2000). To lie successfully, lie-tellers must be able to have an appropriate assessment of their own and the recipients' mental states (e.g., whether recipients are ignorant about the true state of affairs of which the lie-tellers have full knowledge)²⁸."

Convincing liars, according to this model, must produce sets of consistently false statements so that the interpreters to which they are expressing the lies do not become suspicious or skeptical, so they must control their semantics such that improper cues and

²⁷ This new paradigm is important because it establishes the ages at which children can tell lies and offer consistent reasoning in order to cover up there lies, so it has been of interest to professionals dealing with legislation and children who must testify under oath against their own interests, such as with child rape cases.

²⁸ Making a false statement applies to the coherence theory of truth and possibly the correspondence and contextual theories since, first and foremost the so-called "false statement" must be consistent with the liar's disbeliefs, and even if the statement the liar asserts actually has a true truth-value it is false that the "liar believes it, which is an aspect of the intent for the liar to deceive such that (1) the interpreter believes the lie and/or (2) the interpreter believes the expresser believes the lie.

inconsistencies do not "leak" out for the interpreter to observe. Generally, the liar must say things that are inconsistent with the liar's own beliefs and act just as if one believes it, and vice versa, making statements that are consistent with one's own beliefs while acting like one disbelieves the statements. Studies have demonstrated that children are capable of telling lies as early as 3 years old (Lewis et al, 1989; Polak & Harris, 1999; Talwar & Lee, 2002a; Talwar et al., 2007 & 2008).

Ensuring that there is consistency amongst the subsequent statements and the initial lie requires a deceptive reasoning ability called "semantic leakage control," according to Talwar and Lee (2002a & 2007). Children between 3 and 5 years have not yet developed the deceptive reasoning skill of semantic leakage control. For instance, after these younger kids are given the opportunity to disobey by peeking at a forbidden toy or playing with a forbidden toy, and after they tell a lie about doing this, which amounts to them saying that they did not play with the toy or peek, the children fail continuously to pretend they are ignorant, and so they identify the toy (Polak & Harris, 1999; Talwar & Lee 2002a). So, most of the 3 through 5 year olds are unable to feign ignorance, but about 50% of 6 and 7 year olds are able to pretend ignorance, and thus they can easily avoid having their lies detected by adults who are rating them.

All of the mentioned authors in the last paragraph suggest that "feigning ignorance" to follow-up questions requires children to represent second-order mental states. For instance, in the temptation-resistance situation, children can take the experimenter's perspective and first assume that the experimenter thinks they have no knowledge of the answer because they have said that they have not peeked (i.e., a false belief because the psychologists know they have peeked and then lied). Given this false

belief, children need to possess the cognitive skills and practice their reasoning skills about what the experimenter expects them to know or not know (i.e., a second-order belief)" (Talwar et al. 2007 p. 805). So, this entails that each child must represent that "the psychologist believes that the child does not know the identity of the forbidden object" in order for the child to successfully pretend that he or she is ignorant.

Therefore, the successful lies that include subsequent statements involve a second-order theory of mind in which a belief about a belief must be represented by the individual. Although sarcasm and irony do not require constant "semantic leakage control" as is necessary with convincing lying, sarcasm and irony often involve third-, fourth- and fifth-order ToM skills in order to follow the conversation partner, answer appropriately and not be considered an ignoramus, especially with sarcasm because sarcasm involves the derision of the person via witty expressions that are meant to be insulting whether or not the interpreter interprets it as such.

The skills involved during the recognition of sarcasm and irony are far more sophisticated than both the simple lies that are instantiated by 3 year olds and the sorts of lies expressed by 6 and 7 year olds in which semantic leakage control skills are honed. Sarcasm does encompass all of these concepts though, and the techniques involved with the aforementioned ToM experiments as well as the following experiments concerning deception are requisite in order to build a systematic and measurable science of sarcasm, which is currently within its infancy.

Therefore, the mentioned and following experiments are needed in order to attain an understanding about the direction of social cognitive research, and belief attribution, action prediction and the highest levels deceptive reasoning are all crucial for a

theoretical framework by which sarcasm and irony can be placed at the top of the hierarchy of higher order functioning ToM skills within the most intelligent, social minds.

New Paradigmatic Models and Testing Techniques

Philosophically, we are interested greatly in this representation and model, which somehow extends into our conscious awareness, and although the model through which we experience others as having beliefs is transparent to the extent that we never experience the representation, we nevertheless are consciously aware of the false beliefs, deceptions and expectations of others to which deception is attributable.

Talwar et al. 2007 took 86 boys and 86 girls between the ages of 6 and 11 and tested them with a modified temptation-resistance paradigm in which the children played a trivia game. For the final question the children were told by psychologists not to peek at the answer while they were left alone and, thus, given the opportunity to look at the answer. Afterwards, they were asked whether they peeked or not at the answer to the trivia question. For instance, one trivia question was "Where does the President of the United States live?" Each correct response would allow the child to win a token, and with three tokens the child would win a prize, but after the second token was earned by each young subject, the psychologist would tell the child that she had to leave the room for a minute but not to peek on the back of the trivia card.

Only about half of the children in Talwar et al. 2007 peeked, and younger children (i.e., 6-8 year olds) were shown to be more likely to peek than older children (i.e., 9-11 year olds), which illustrates that the older children are able to maintain an inhibitory

control over temptations. 93% of all of the children who peeked at the answer to the trivia question told a lie (i.e., they denied peeking). The children who lied were more likely to reveal their deceptions via subtle cues when the *lie-tellers were explaining why* they had chosen the particular answer at which they had previously peeked, and they revealed this by expressing more negative and more positive behaviors (e.g., more elaborate smiles and facial expression).

Talwar et al. 2007 explains:

"It should be noted, however, that the explanation segment was the only segment in which lietellers were significantly distinguishable from nonliars, and the distinction was made by trained coders who were able to view the videos repeatedly. Thus, it is unlikely that those children's deception could have been easily detected by naïve adults."

Such experiments are necessary in order to understand the groundwork by which we may begin to understand the complexity of the adult's deceptive reasoning capacities. I shall explicate many of these ideas within the next chapter concerning the philosophical psychology of deception, which also involves sarcastic reasoning. The latter experimentation and techniques involved with social cognitive ToM research must be kept in mind while reading about the future directions of research, which will inevitably involve sarcasm and irony. What I have demonstrated within the introductory chapter is the need for a philosophical framework by which ToM research can be formalized and understood. Moreover, an addition to the temptation resistance paradigm that allows for scientists to observe even higher order ToM skills will be illustrated in relation to altering Talwar and Lee's experimentation.

I shall propose a theoretical framework by which ToM experimentation will be explained and shall take certain aspects lower on the hierarchy of ToM skills into

consideration amongst the highest cognitive capacities, which include: (1) the ability to recognize sarcasm without a cue; and (2) the performance of deception via an individual's semantic leakage control and a constant consideration of the mental states of the individual who interprets the deceptive language, including body language and facial expressions. I shall begin the next chapter with historically selected pieces of the first remnants of philosophy of deception dating back to antiquity before a return to ToM literature.

П

Philosophical Psychology of Deception

II.i. A Brief History of Important Thinkers Regarding Deception

Let not thy heart be puffed-up because of thy knowledge; be not confident because thou art a wise man. Take counsel with the ignorant as well as the wise. The (full) limits of skill cannot be attained, and there is no skilled man equipped to his (full) advantage. Good speech is more hidden than the emerald, but it may be found with maidservants at the grindstones . . . (It may be that) it is fraud that gains riches, (95) (but) the strength of justice (or truth) is that it lasts, and a man may say: "it is the property of my father." . . IF THOU ART A MAN OF INTIMACY, whom one great man sends to another, be thoroughly reliable when he sends thee. Carry out the errand for him as he has spoken. (150) Do not be reserved about what is said to thee, and beware of (any) act of forgetfulness. Grasp hold of truth, and do not exceed it. (Mere) gratification is by no means to be repeated. Struggle against making words worse, (thus) making one great man hostile to another through vulgar speech.

The Maxims of Ptah-Hotep

The first fragments of philosophy of deception begin with the Governor of Memphis and Prime Minister to King Djedkare Isesi under the 5th Dynasty of ancient Egypt, Ptah-Hotep, who dates back to at least 2400 BCE, although some scholars have placed him as far back as 2880 BCE, such as Will Durant (1963).²⁹ Ptah-Hotep's dictations were transcribed by a servant of King Isesi. They were written as instructions

²⁹ Pulitzer Prize winning historian Durant provides a slightly different translation claiming "Fair speech is rarer than the emerald that is found by slave-maidens among the pebbles... Live, therefore, in the house of kindliness, and men shall come and give gifts of themselves... Beware of making enmity by thy words... Overstep not the truth, neither repeat that which any man, be he prince or peasant, saith in opening the heart; it is abhorrent to the soul." Kofi Ababio (2006) dates this work back to 2540 BCE, whereas James Pritchard (1969 p. 412) dates the quoted piece above this footnote back to 2450.

to his beloved son, and later these "Instructions of Ptah-Hotep" were transcribed by much later, ancient scholars who considered this set of maxims to be an antique classic.

Hundreds of years later Hammurabi's laws stated that if a man is falsely accused of an offense punishable by death, and the accuser cannot prove this accusation, then the accuser shall be sentenced to death, which surely reduced the number of false and deceptive accusations during the reign of Hammurabi during the 18th century BCE.

The second book of the Torah, Exodus, also briefly states something like a rule or command against deceptions and is the 9th of the 10 Commandments claimed to be spoken by God and taken by Moses on Mt. Sinai around 1445 BCE (Nelson, 1999 p. 98; Exodus 19).

Thou shalt not bear false witness against thy neighbor (Exodus 20:16).

This disallowed libel from taking place, and it established the ancient Israelite system of justice on firm grounding since the justice system was based upon the testimonies of those individuals who were deemed trustworthy. The fifth book of the Torah called Deuteronomy³⁰ describes events taking place around the same time period as the Book of Exodus and in which Moses provides the Deuteronomic laws in approximately 1406 BCE, such as:

Whoever is deserving of death shall be put to death on the testimony of two or three witnesses; he shall not be put to death on the testimony of one witness. The hands of the witnesses shall be the first against him to put him to death, and afterward the hands of all people (17:6-7).

The earliest dates of the Hindu *Mahabharata* date back to the 8th century BCE. This ancient Sanskrit text forms many of the basic tenets of Hinduism and states that:

By telling a lie to save a life, one is not touched by sin.

³⁰ Deuteronomy means "second law," which is an appropriately titled work since Moses presents the laws to the people for the second time after forty years of being wandering vagabonds from around 1446-1406 BCE (Nelson, 1997 pp. 290-91).

Ancient Babylonian literature dating back to the 6th century BCE includes a piece by Gubarru or Gubaru (note: some scholars consider him to be Ugbaru as well) within the Nabonidus Chronicle tablet translated by Dr. T. G. Pinches. Gubarru was a Babylonian Alcibiades who expressed pessimism and skepticism in relation to those who accumulate such great fortunes, like priests at that time. He responds to an older man who said (Durant, 1963 p. 262):

Give attention, my friend, and understand my thought. Men exalt the work of the great man who is skilled in murder. Men disparage the poor man who has done no sin. They justify the wicked man, whose fault is grave. They drive away the just man who seeks the will of God. They let the strong take the food of the poor; they strengthen the mighty; They destroy the weak man, the rich man drives him away.

Gubarru is advised by the old man to follow the wills of the gods, but Gubarru expresses about the priests and the gods that (p. 262):

They have offered lies and untruth without ceasing. They say in noble words what is in favor of the rich man. Is his wealth diminished? They come to his help. They ill-treat the weak man like a thief, They destroy him in a tremor, they extinguish him like a flame.

Gubarru lived during the same time period and geographical location as Daniel, a major protagonist within the Old Testament. Daniel 6:1, 6, 9; and 9:1 all refer to "Darius the Mede" who reigned over an area around the same time period as Cyrus the king of Persia who conquered Babylon in 538 BCE and allowed the Jews to reenter the kingdom. Some believe Darius the Mede to be Cyrus, but there is doubt that this Persian would have been called a "Mede," whereas others believe him to be Gubarru or the son of Cyrus who may have co-ruled in approximately 538 BCE (Nelson, 1997 p. 1429).

The story of the plot against Daniel begins with Daniel becoming a distinguished thinker with creative and practical ideas, which brought about jealously amongst the other governors and the satraps, so they tried to find a legal charge against Daniel but

could not find one. The Book of Daniel states (6:5)

Then these men said, "We shall not find any charge against this Daniel unless we find it against him conceiving the law of his God."

They decided to gather together in order to deceptively convince King Darius to create an edict while concealing their intentions to harm Daniel.

All the governors of the kingdom, the administrators and satraps, the counselors and advisors, have consulted together to establish the decree and sign the writing, so that it cannot be changed, according to the law of the Medes and Persians, which does not alter. Therefore King Darius signed the written decree. Now when Daniel knew that the writing was signed, he went home. And in his upper room, with his windows open toward Jerusalem, he knelt down on his knees three times that day, and prayed and gave thanks before his God, as was his custom since early days.

Then those men assembled and found Daniel praying and making supplication before his God. And they went before the king, and spoke concerning the king's decree: 'Have you not signed a decree that every man who petitions any god or man within thirty days, except you, O king, shall be cast into the den of lions? The king answered and said, 'The thing is true, according to the law of the Medes and Persians, which does not alter.'

So they answered and said before the king, 'That Daniel, who is one of the captives from Judah, does not show due regard for you, O king, or for the decree that you have signed, but makes his petition three times a day.' And the king, when he heard these words was greatly displeased with himself, and set his heart on Daniel to deliver him; and he labored till the going down of the sun to deliver him. Then these men approached the king, and said to the king, 'Know, O king, that it is the law of the Medes and Persians that no decree or statute which the king establishes may be changed.' So the king gave the command, and they brought Daniel and cast him into the den of lions (6:7-16).

The story of Daniel continues with regretful King Darius asking Daniel whether his living God has protected him from the lions, and Daniel replies that God's angel shut the mouths of the lions because Daniel is innocent, and Daniel had not committed a wrongful act against the king.

Now the king was exceedingly glad for him, and commanded that they should take Daniel up out of the den. So Daniel was taken up out of the den, and no injury whatever was found on him, because he believed in his God. And the king gave the command, and they brought those men who had accused Daniel, and they cast them into the den of lions--them, their children, and their wives; and the lions overpowered them, and broke all their bones in pieces before they ever came to the bottom of the den (6:23-24).

King Darius honors God as being so great that everybody within his kingdom should "tremble in fear" before Him and exclaims that God delivered Daniel from the lions' power (6:26-27). This story may have been told to most of the children in the Western World during the last millennium, and although the men who were jealous of Daniel did not lie, they did indeed conceal their intentions, conspire against an innocent man and deceive the king. This story is an excellent example of deception in virtue of its historical significance and the fact that a group of men were able to conspire against so many others, have them arrested at will, and then have them killed in an on-going power struggle interacting with the king and yielding his powers for their purposes.

One of Buddha's (563-483 BCE) five moral rules included (Durant, p. 430):

Let not one speak falsely.

Publilius Syrus was a Roman slave from Syria who was freed by his master during the reign of Caesar in the 1st century BCE and educated after he won his favor via his great wit. Publilius Syrus wrote a series of moral maxims as sentences, which have been used by St. Augustine to argue that the church must value rhetoric and by scholastics, such as St. Anselm of Canterbury, Thomas Aquinas, and William of Ockham. The title of Publilius Syrus' piece is *Sententiae* in which the 171st number reads:

Pain forces even the innocent to lie.

During the 15th century Machiavelli (1965 p. 203) maintained that the Romans were capable of sustaining order and liberty:

(B)ecause of the people's ability to discern the common good when it was shown to them. At times when ordinary Roman citizens wrongly supposed that a law or institution was designed to oppress them, they could be persuaded that their beliefs are mistaken . . . (through) the remedy of assemblies, in which some man of influence gets up and makes a speech showing them how they are deceiving themselves. And as Tully says, the people although they may be ignorant, can grasp the truth, and yield easily when told what is true by a trustworthy man. . . . (p. 316) public opinion is remarkably accurate in its prognostications. . . . with regard to its judgment, when two speakers of equal skill are heard advocating different alternatives, very rarely does one find the people failing to adopt the better view or incapable of appreciating the truth of what it hears.

Additionally, Machiavelli claims within The Prince that:

(O)ne must know how to colour one's actions and to be a great liar and deceiver. Men are so simple, and so much creatures of circumstance, that the deceiver will always find someone ready to be deceived (Machiavelli, 1999 p. 57).

The history of the philosophy of deception is one of the densest within all academic disciplines, and the range of issues covered by philosophy of deception appears to begin with the ethics of Ptah-Hotep, the legal codes of Hammurabi, the codes of justice according to the Israelites within the *Old Testament*, the morally acceptable type of deception within the *Mahabharata*, the pessimism and cynicism expressed by Gubarru in relation to those in power or with money, the terrible punishment wrought by King Darius against the deceivers who convinced him to sign a decree against his best interests and the best interests of Daniel and many others, the moral rule of Buddha, the inevitability of lying in order to avoid pain, and during the common era the Machiavellian need to gain an advantage over those individuals who are less intelligent

formed a cynical worldview expressed as the idea of Realpolitik.

II.ii. Contemporary Conceptions of Deception

Philosophers have been intimately familiar with many of the ideas coinciding with deception for several millennia. However, the contemporary systematic, philosophical analysis of deception has taken place via a series of arguments and counterarguments about the definition of deception.³¹ It has also been greatly influenced by Rene Descartes who utilized a type of systematic deception wrought by an evil genius who leads the individual to believe things that are false constantly and continuously. Cartesian examples thus shape our views via such concepts as perceptual and global skepticism.³²

A "deception" is either: (1) an act because it is "that which deceives"; or (2) a state and condition in the sense that a deception is "that which is being deceived." "Deceive" means "misleading by a false appearance or statement;" although one may think that deceiving involves a deceiver who intends to deceive (i.e., deceitfulness and misleadingness); this is unnecessary for a general definition, so, for example, one can be deceived by an illusion or hallucination.

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³¹ The morality of deception is another aspect that shall not be discussed here. Although moral concerns arise constantly during such inquiries as these, I am interested in the definition and systematic measurement of deceptive reasoning via naturally developed ToM skills.

³² Perceptual skepticism is obviously less skeptical as a thesis or it is merely an aspect of global skepticism, and both of which are used by Descartes methodologically in order to practice a method of attaining the truth. *Perceptual skepticism* is the thesis that nothing can be known on the basis of the senses, whereas *global skeptics* maintain that we cannot know anything at all. Methodologically speaking, the philosopher should use that degree of certainty that coincides with the "argument bars asserted" only after the argument has been defeated by *the least skeptical counter-argument*, i.e., weighing the degree of certainty at that level of the least skeptical argument that is able to defeat this "argument being asserted." Thus, the notion of different grades of skepticism and levels of certainty are advocated here.

For instance, sarcastic reason is deceptive because it involves those who are misled by a false appearance, proposition or assumption within a question, regardless of whether or not the sarcastic expresser intended to deceive one or more of the listeners or readers.³³ Moreover, sarcasm and irony are more deceptive than metaphors in relation to ToM, which includes all of the historical examples of deceptions since they are psychological, involving the mental states of others.

Reality is typically deceptive from some vantage point. For instance, if one looks at a circle from most angles, the geometrical figure will not look like a circle, or cannot be drawn as such, because it will more likely appear ovular instead.

Deceptive reasoning could be viewed as an entire branch of philosophy, such as metaphysics, because "deception" involves both the conceptions of appearances and reality as well as skepticism since the idea of deception illustrates the plausibility and probability that we are misled at times by appearances (i.e., Kant's Erscheinungen), which are hallucinatory, illusory or they are veridically perceived.³⁴ Moreover, the plausibility of being deceived, and thus led astray from the truth, especially in relation to being intentionally deceived by another person, may provide us with the assumption that those being deceived are at least sometimes in an epistemological position to know

³³ Ageism would allow one to assume that sarcasm is not deceptive since well-versed writers generally understand some forms of sarcasm, ideologically and culturally speaking, at some level of ToM social cognition, i.e., the fact that young children cannot understand, recognize and express sarcasm, despite the fact that they can lie, illustrates that sarcasm is deceptive in another sense than lies and exaggerations. Moreover, a Global Deception Research Team (2006) discovered that across 58 countries 63.6% of participants believed that the failure to make eye contact while speaking is a sign that the individual is lying, and out of 51 of these countries it is the most commonly given cue believed by the people to allow them to distinguish whether or not the expresser is lying. This common multi-cultural belief is both false in children (Talwar & Lee, 2002) and adults (DePaulo, Lindsay, Malone, Muhlenbruck, Charlton & Cooper, 2003).

Hallucinations need not be contrasted with veridical perceptions such that direct or indirect realism is advocated as a result of this contradistinction because veridical perceptions might be merely considered to be what is or would likely be confirmed by other perceivers as well and as opposed to hallucinations, which may lead the perceiver to assert or act as if something is observable to others when, in fact, it is not, which may result in unsuccessful communication, further deceptions or delusions.

something since it requires effort, time and intentionality in order for the deceiver to consistently lead the beguiled away from the truth. For how or why could some act be called a "deception" if all acts were maintained to be deceptions?³⁵

Attributing some act as being "deceptive" places it in a special epistemological category that separates the act from others that we do know. Likewise, maintaining that some act is not a deception is somehow categorizing the act as straightforward, familiar, and knowable or what one should believe. "Belief" as a mental state functions in some interconnected ways with the mental state of desirability. Beliefs have the satisfaction conditions of being true, false or undecided (i.e., unentschieden, according to Wittgenstein), whereas desires are either fulfilled, unfulfilled or neutral (i.e., the individual may neither desire nor dislike something neutral). Beliefs are shaped by the way in which the world is, but desires are often not.

Psychologists claim that there needs to be a restoration of emphasis upon desirability and belief in relation to one another in order to evaluate the prevalent notion that ToM can be utilized in order to predict future behaviors of those with mental states; moreover, solely understanding belief or just understanding desire is insufficient for the development of an understanding about how an individual will behave (Bennet, 1991; Harman, 1978; Premack & Woodruff, 1978; Stich, 1978; Ziv & Frye, 2003).

Margalit Ziv and Douglas Frye (2003 p. 859) maintain that

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³⁵ Descartes' evil genius argument and conception of systematic deception has been proposed as a fact that an individual can consistently imagine oneself to be merely a brain in a vat with a genius stimulating one's brain and thus lead one to believe that one is experiencing sights and sounds, for instance, when in fact the individual has absolutely no veridical sense perceptions whatsoever. Would the evil genius have to communicate with the brain, which would be receiving some sort of consistent input? Could the evil genius be deceived by another evil genius, which, in turn, was deceived by another? An infinite regress of deceptive agents and practice does not appear plausible; thus, there is presumably a firm philosophical ground to base tenets upon under the recognition of the latter epistemological problems wrought by global skepticism. This stable ground involves successful communication and/or at least some deceiver who is not deceived.

It is important to study both belief and desire because the findings from one may not generalize to the other. Specifically, results for belief may create mistaken conclusions about the development of desire understanding (Schwitzgebel, 1999). . . . people typically engage in *actions* because they *believe* those actions will satisfy their *desires*³⁶ . . . We understand other's actions, in turn, by inferring their beliefs and desires. . . . (p. 861) Despite the theoretical importance of desire in children's belief understanding, children do not seem to have been questioned about desire in the standard theory of mind tasks.

We do have reasons to believe that beliefs and desires are very different types or statuses of mental states, and representations of them do take place as "propositional attitudes" (Fodor, 1975), which is an assumption that the following formulation assumes. The graph below called the "Cubic Formulation of the Belief-Reality-Desire Triad" is the crux of the theoretical framework through which ToM experimentation can be created and through which behaviors are predicted. (1), (5) and (9) graphed below in bold are the categories of our accurate beliefs that are consistent with reality, our accurate disbeliefs, which describe fictions properly, and undecided beliefs, which are related to those aspects of reality that we cannot know and thus about which skepticism is an appropriate disposition or attitude.

(1), (5) and (9) are thus aspects of mental states and circumstances that must be avoided in order to conduct ToM experimentation, whereas (2), (3), (4), (6), (7) and (8) are best sets of mental states and settings by which false belief tasks can be instantiated, although (3) and (6) have neither been performed nor taken advantage of within social cognitive research.

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³⁶ We might qualify this statement with idea that people perform actions because they believe these act,s as opposed to the others that they have in mind as possibilities and options, shall satisfy their desires, which include the desires of others that they may prefer to satisfy before their own.

II.iii. The Cubic Formulation of the Belief-Reality-Desire Triad

	(R) Reality	(F) Fiction	(i) Indeterminate
	(1) Desirable	(2) Desirable	(3) Desirable
(B) Belief	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain
	(4) Desirable	(5) Desirable	(6) Desirable
(D) Disbelief	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain
	(7) Desirable	(8) Desirable	(9) Desirable
(U) Undecided	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain

These 27 categories represent a model of a mind-world triad by which biological behavioral options should be conceptualized. The "world" category is represented in three different ways, which includes: (1) the ontological, existents and the way in which reality is (e.g., an orange cat underneath a bed, which is independent of anyone else's beliefs that the orange cat is under the bed); (2) the so-called metaphysically possible options, which are non-existents and fictional, but they are able to be believed by the biological organism (i.e., the individual may act as if these non-existents are actually existents).

For example, a bed may have absolutely nothing underneath it, but nonetheless an individual may believe that some white cat is underneath the bed when, in fact, it is not under the bed. In this latter case "the white cat being under the bed" is the non-existent and is fictional; and (3) the objectively indeterminate, which no individual has the capability of knowing (e.g., whether a black cat was underneath some randomly selected bed 100 years ago inside a randomly selected house within a neighborhood with homes

dating back 200 years and without any historical accounts about some cat underneath one of the beds there, or whether the cockroach I found in the kitchen scuttled over any of the clean dishes in the cupboards).

Of course these categorizations of reality also contain all philosophical examples, which include: (1) the actual status of voluntary behaviors in relation to determinism and free will; (2) the fictitious status of the evolution of morals and false accounts that are believable about the function of political ideologies within a society struggling with a dictatorship versus a hegemony; and (3) the existence of an omnipresent and undetectable being.

There are six categories of mind represented within this mind-world triad formulation above, and they compose nine different dispositions or attitudes by which behaviors are reasonably performed, actions are predicted and notions of reality (i.e., metaphysics) arise, which I shall present within a contemporary philosophical analysis of *belief* before a tripartite analysis of *desirability* is illustrated.

Belief and desire, or interest, are the most important aspects for ToM research and future social cognitive research that allow focus upon sarcasm and irony, which creates and extends to the maximum limitations of metacognition. Furthermore, belief and desire must always be considered in relation to the experimental circumstances cleverly created by psychologists and philosophers, such as Daniel Dennett (1978).

Consider three different types of beliefs that range from holding a *belief* in something to being *undecided* to *disbelief* on a continuous scale of being more or less certain,³⁷ and the range from *desirability* to *uncertainty* about one's own desires to

³⁷ Interestingly, an etymological analysis will illustrate that the words "certainer" and "certainest" were in common use until the middle of the 18th century in the English-speaking world.

undesirability, dislike or disgust, which also reside in degrees by which our mental states can be expressed in writing as being extremely and incredibly desirable, somewhat desirable, neutral, a little undesirable and absolutely disgusting and repulsive.³⁸ All ToM research relies on belief and desire as interacting mental states.

According to H. H. Price (1969 p. 19), "there are two very different ways of analyzing belief," which Price argues are the "occurrence analysis or traditional analysis," which prevailed until the mid-20th century and involves analyzing the occurrence of a belief in which the analytic content focuses primarily upon what one claims to believe either publicly, privately or within some unspoken dialogue, for instance, and the "analysis of dispositions," which understands beliefs to be dispositions and was founded by Alexander Bain during the middle of the 18th century (Price, 1969).

The occurrence analysis maintains (p. 19):

(B)elieving is a special kind of mental occurrence (sometimes described as a 'mental act'). This act could always, but need not, be introspected by the person if the person takes the trouble, which may be impossible without writing or some form of expression.

In this case the main task of philosophy is to examine the introspective mental occurrence in so far as analysis is permitted and to distinguish it from other mental occurrences with which belief may be confused, "for example from the one which occurs when we merely consider a proposition neutrally, without either accepting it or rejecting it" (p. 20). Analyzing beliefs as dispositions rather than as things and occurrences that are able to be introspected is explained by Price (p. 20) as follows:

³⁸ Belief, in this formulation, has two different ranges from strong to weak (i.e., with greater or lesser intensity) beliefs in which weak beliefs are closer to the category of being undecided, and likewise, disbeliefs are either stronger or weaker and hold the same relation to undecidability as well. As propositions disbeliefs are the same as beliefs with the exception of some negative form of speech, such as the word "not." Within the belief-desire-reality triad disbelief functions as being true when the proposition describing the world is fictitious, whereas disbelief is false when it is expressed as a proposition that does not describe reality.

When we say of someone 'he believes the proposition p' it is held that we are making a dispositional statement about him, and that this is equivalent to a series of conditional statements describing what he *would* be likely to say or do or feel if such and such circumstances were to arise.

The idea here maintains that we utilize our beliefs as like premises within our inferences when they are relevant in relation to expressing something or feeling something.

If circumstances were to arise in which it made a practical difference whether p was true or false, he would act as if it were true. If p were falsified he would feel surprised, and would feel no surprise if it were verified (p. 20).

The last statement here may assume that the belief in both cases is an intense one. Surprise is an emotional state that is generally involved with desirability. The dispositionalist view holds that although acquiring and losing beliefs are occurrences, a belief is not an occurrence.

(B)elief itself is not something which happens at a particular moment, but something we have or possess throughout a period, long or short (p. 20).

In response to the dispositionalist analysis of belief H. H. Price (p. 267-8) later claims:

If a belief is a disposition which a person acquires at a certain time and retains for a certain period, it is surely a multiple form disposition which manifests itself in many different ways, and not only in the actions which he does.

Beliefs are analyzed in virtue of a range of options which extend from: (1) beliefs with the attribute of certainty, which have been verified and can be verified regularly, such as the belief that the cat is under the bed while one is in the same room as the cat and close or closer to viewing most of the space under the bed (i.e., Belief-Reality); (2) a belief that is undecided with the attribute of uncertainty, and it either cannot easily be

verified, has not been verified, or there is not enough desire for the individual to verify the status of the event or object in question.

For instance, an individual may claim to have *seemed* to have seen something small out of the corner of her eye move toward the foot of the bed, and when she is asked whether the cat is under the bed she expresses doubt since she has not verified whether the cat is there or not, and there are several other places the cat could be outside of her view (i.e., Undecided-Reality, if the cat is underneath the bed, and she may think that it is as likely that the cat is in one of three other places than underneath the bed); and (3) Disbeliefs with the attributes of certainty in which one *may* believe that his disbelief is justified. For example, a man may disbelieve that a cat is underneath the bed, and he is justified to the extent that he recently looked underneath bed for the cat but did not see it, although the cat is actually there (i.e., Disbelief-Reality³⁹).

Thus, the Reality-Indeterminate-Fiction triad has been demonstrated to be completely independent of the individual's mental states, ⁴⁰ and certain combinations, such as "Belief-Fiction-Desire" during the first false belief task with Maxi (Perner & Wimmer, 1983), are instantiated for a third-person observer to recognize the distinction

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³⁹ We may consider Edmund Gettier's 1963 article, "Is Justified True Belief Knowledge," to be based upon these simple principles in which case *desirability* in Gettier's first counter-example, which proves that one does not necessarily know something x solely on the basis that one has a true and justified belief that x is the case (i.e., in conjunctive form), is not considered in relation to the actions of the agent who might attain a promotion "and has ten coins in his pocket." Since *desires* coincide and intricately interact with our beliefs, the knowledge of the individual may best be described in virtue of his *justifications*, *beliefs* and *desires* because we may not *trust* an individual or label him as "credible" if the individual's desires support some ulterior motive, such as selling a product, while the beliefs and justifications he offers, for that product as the best one, are dubious to the customer in virtue of the fact that the product is expensive in comparison to alternatives and the supply they have is quite great, although nevertheless the salesman speaks the truth. Within Gettier's example the desire Smith has for Smith to attain the job may be quite great, but false hopes would psychologically be incredibly stressful if he in fact did not attain the job.

⁴⁰ Price (1969) does maintain that the individual who upholds that a proposition is definitely true, generally,

⁴⁰ Price (1969) does maintain that the individual who upholds that a proposition is definitely true, generally is completely uninterested in respect to one's own attitude (i.e., belief, desire, doubt etc.), the individual is instead concerned with the statement itself. This may be conceived of along the lines of being an evolutionary stable strategy by which the individual pragmatically applies the so-called "propositional knowledge," unless or until it proves to be useless in the future.

between the belief that does not correspond with reality and the desire that will not be immediately satisfied as a result of that fact. Furthermore, the frustration, psychological tension and cognitive dissonance (Festinger, 1957 & 1959) that may arise from the situation must be taken into account within a comprehensive theoretical framework since the individual will be expected to expend time and effort searching for the desired object (e.g. the chocolate bar) before his desire can be fulfilled or partially satisfied.

The most important aspect for us to understand is how exactly beliefs function within the experimental setting so that they can become measurable to some extent. Some of the best ways to measure beliefs is via the implementation of second- and third-order false belief tasks in comparison to first-order false belief task results. Higher order false belief tasks can be implemented via sarcastic and ironic remarks performed by confederates of experiments in which circumstances can be staged such that the subjects form false beliefs about the beliefs of the confederates (e.g., meta-meta-meta-beliefs) with the presence of measurable motivations (i.e., desirables).

Experiments concerning lying, such as the ToM resistance-temptation paradigms described in the last chapter, are complicated in that they require the subjects to disobey the psychologist, lie about the disobeying, and then the psychologist can lie in response to the subject's lies in order to measure semantic leakage control and how sophisticated the ToM skills are. For example, does the subject recognize that in order to attain the object of desire (e.g., the prize in Talwar and Lee's experiments) the subject must conceal the fact that she knows that the psychologist is lying because she disobeyed the demand of the psychologist and lied about it by peeking at a forbidden object?

The false belief in this case is quite complex since the subject does not know that

the psychologist *knows* that the subject *does not know* that the psychologist *knew* that the subject disobeyed him (i.e., a 4th order false belief) by peeking at the forbidden object and that the subject lied about this (i.e., 4th order false belief) by claiming that she correctly guessed the forbidden object. The presentation of circumstances that are sufficient for the meta-meta-beliefs which are inferred from the successful rejoinder (i.e, made by the subject in response to the lying psychologist in response to the lying subject) run into complications that arise from the settings requirements, namely, encouraging the subject to disobey and lie via the presentation of desirable objects they have the opportunities to attain.

Even more complex mete-cognitions are able to arise from situations that involve sarcasm and irony, and they are able to be instantiated without such difficult experimental techniques it seems. What must be required is the presentation of some motivation within the experimental conditions in order for the subjects to have incentives to meta-cognize, forming the most complex-order meta-beliefs.

A significant characteristic of "beliefs" is that these sorts of mental states have a semantic quality and are considered to be propositional attitudes by which we understand other mental states, the world, and predict behaviors, or they are intentional such that they have a directedness toward some object (i.e., beliefs are about objects in the world and other mental states). David Chalmers (1996 p. 19) claims the following:

Belief is most often regarded as a psychological property. On this view, at a rough first approximation, to believe that a proposition is true is to be in a state wherein one acts in a way that would be appropriate if it were true, a state that tends to be brought about by its being the case, and a state in which one's cognitive dynamics of reasoning reflect the appropriate interaction of the belief with other beliefs and desires. The functional criteria for belief are very subtle, however, and no one has yet produced

anything like a complete analysis of the relevant criteria. All the same, there is reason to believe that this view captures much of what is significant about belief. It is related to the idea that belief is something of an *explanatory construct*: we attribute beliefs to others largely in order to explain their behavior.

In the original false belief task conducted by Perner and Wimmer (1983) it has been explicated that the 3 year old children observing Maxi with the chocolate bar cannot linguistically respond to psychologists appropriately about the false belief that Maxi has (i.e., Maxi believes the chocolate bar to be in the last place he set it rather than where his mom placed it while he was away).

Psychologists argue that the three year olds use a faulty heuristic, which is the desire heuristic: The individual will go to the location where the desired object resides in order to satisfy the desire. This happens to be false at least for the time being since Maxi is much more likely to look for the chocolate in the cupboard in which he placed it. However, Maxi might very well search for the chocolate and discover it within the second cupboard within which his mother placed it.

From the age of about 4 to 6, during healthy mental development, children have honed a more complicated heuristic by which they can linguistically explain predicted behaviors. This heuristic is called the *belief-desire heuristic* in which the observer can claim: *The individual will go to the place where the desired object lies if the individual believes the desired object resides there*. Chalmers second sentence above does take into account the belief-desire heuristic. Two separate theoretical approaches, Fodor's (1992) *nativist* approach and Bartsch and Wellman's (1995) *theory theory* formally present the possibility that the children possess the more complicated belief-desire heuristic, but the desire-heuristic is more dominant and thus is responsible for the 3 year olds incorrect responses concerning ToM tasks.

Nativism and theory theory have continued to be consistent with empirical findings; thus a categorization of desires, beliefs and world as in the aforementioned "Cubic Formulation of Belief-Reality-Desire Triad" is necessary as a theoretical framework by which all of the various ToM experiments in the last chapter and future ToM experimentation can be better understood.

The relevance of sarcasm and irony here are important since these recognition and expressional acts require much more than a simple belief-desire heuristic in order to cognize the mental states of conversational partners who are cognizing the other person's potential and/or actual thoughts and beliefs represented in cues wrought by facial expressions and non-literal wordings, for instance, which the expressers disbelieve.

Placing conversations in an experimental setting with motivational cues and desirable objects, which involve sarcasm and irony expressed by the psychologist are likely to involve various other forms of deceptive reasoning resulting from the subjects, such as lying and exaggeration and, my favorite, which is *telling the truth with a sarcastic tone* and in which case the interpreter is likely to think that: (1) one disbelieves what one said; or (2) reality does not correspond to what was said. Moreover, meta-recognition and creative rejoinders are motivated by the structure of the experimental setting because it shall include rated, desirable objects that the subject can attain, and the subject thinks the desirables are attainable solely when the subject is successful.

Chalmers (1996) does not take into account the following situation. A person may fail to act as if a proposition were true, even if she *believes* it and *desires* to act in accordance with the proposition of which she is consciously aware. This failure to act is a tricky situation to explain, but it is plausible, and we would generally explain it terms of

the person having some ulterior motive, but that negates the very suggestion that has been put forth since it is claimed that she desires to act accordingly.

Moreover, one may act just as if a proposition were true, although the person does not believe the proposition is true. So, for instance, some three year olds might tell the psychologist during the false belief task that Maxi will look for the chocolate within the cupboard that he placed it. In these latter cases the notions of *error* and *random coincidence* need to be explained in relation to the Belief-Reality-Desire cubic triad. Exhaustive testing is likely needed in order to measure the error and coincidence and to come to some sort of reasonable account rather than what has been considered an inevitable consequence of the potential experimental outcomes.

Another problem concerning an analysis of belief is the problem that arises when we consider an individual's beliefs that contradict one another when they are expressed. How exactly would these sorts of beliefs function if the set of circumstances were to arise where some practical difference about one or both of the contradictory beliefs being true demanded that he act upon the basis of one or the other? Is this what we would call "hesitation"?

Would he lose one belief and reaffirm and strengthen the other on the basis of the experience (i.e., dropping one belief if it resulted in a mistake or discarding it if it had been expected to result in error while verifying the other belief if it does not result in error, and plausibly if it is inconsistent with reality)? How do we account for those situations in which the individual does not appear to change his or her beliefs after the error has been made? Possibly this denotes a lack of intelligence and misunderstanding of models, such as the Cubic Formulation of the Belief-Reality-Desire Triad model.

A major drawback to these theoretical accounts of beliefs is that they do not incorporate the notions of experience, conscious awareness⁴¹ and the associated feelings that one undergoes during the experiential facets of believing. These accounts are macrolevel behavioral accounts, involving predictions of behaviors on the basis of some mental state that can be expressed or represented or interpreted roughly (i.e., via certain cues, wordings and context) and their relations to belief, rather than micro-level accounts which would involve the neurology and first-person experiential aspects of conscious and preconscious beliefs⁴².

Sarcasm and irony, furthermore, are not taken into consideration by Chalmers, Price, Searle and most philosophers since, plausibly, the practice of analytically describing something as truthfully as possible (i.e., largely functions of the brain's left hemisphere with Broca and Wernicke's areas) momentarily hinders the ability for our brains to describe and/or express the emotional aspects that coincide with language (i.e., the right hemisphere does not function as highly while we write philosophy as it functions during social cognition) while we are in conversation. We do in fact place stressors on words, which act as cues or signals for emphasis and slight changes in meaning, but there is rarely a philosophical piece from Ptah-Hotep 4,500 years ago until today that actually utilizes the expression of sarcasm or irony in order to make a point because the risk is quite great, namely, the audience or readers misinterpreting the point

⁴¹ Searle (1990) does argue that the directedness of the content of beliefs is predicated upon the conscious state of awareness that is associated or upon the conscious state about which the belief can create, so that everything that would be present without consciousness is an "as-if" intentionality. Chalmer's (1996 p. 20) states that "there is often conscious experience in the vicinity of belief: there is something it is like when one has an occurrent (i.e., conscious) belief, and most nonoccurrent beliefs can at least bring about a conscious belief. The crucial questions, though, are whether this conscious quality is what makes the state a belief, and whether it is what gives it the content it has."

⁴² "Preconscious" belief in the Freudian sense refers to those objects we believe in and that we know about and could be consciously aware of if and only if the situation arises in which the belief is recalled or remembered. Thus, more of our beliefs are preconscious than beliefs of which we are consciously aware.

since it is deceptive.

Philosophers consider the validity and criticize the soundness of such false or non-literal speech as ironic or sarcastic speech and writing in which, for example, one may maintain that something is, "RIGHT," when in fact he believes it is not right and believes that nobody who is intelligent and sane could believe it is right; so, he uses a word that describes the exact opposite of what he thinks with a tone or facial expression as a signal to let the other person consider the instantiation of non-literal speech.

When the person is questioned about his answer he might even stay perfectly consistent with the first response, perhaps without using a cue that sounds "sarcastic" by responding, "Yeah, that is right" or "of course." Moreover, if the individual makes these sorts of statements in order to draw attention to those who disagree with him, then the man can possibly scorn or ridicule the person by seemingly agreeing with him (i.e., the literal meanings of the words are in agreement with the other person while the expresser secretly disagrees with the interpreter or dislikes the interpreter's attitude toward the subject) while taunting, mocking and sneering at the individual with sarcasm.

Sarcasm within the Experimental Setting

Motivations within the experimental setting can allow experimenters to practice such linguistic techniques as sarcasm and exaggeration, and the results will demonstrate higher ToM skills as a result of the instantiation of meta-meta-meta-meta-beliefs. Furthermore, the settings can be established and be no less ethical than the encouragement of lying within the temptation-resistance paradigms. How might we explain the function of belief and desire in these more challenging sorts of cases?

We are discovering that the implications for such experimentation concerning sarcasm is quite important in relation to disorders, such as frontotemporal dementia (Kipps et al. 2009), but more importantly sarcasm and irony can be learned and practiced for rehabilitation and may ensure greater developmental success for autistics and other children in the future.

Computer programs can be created to respond with non-literal wordings, which also serve as a tool for instantiating the recognition of sarcasm and irony. Additionally, computers programmed to be ironic and sarcastic would allow a sort of Turing test to take place. Sarcasm and irony can be implemented for the purpose of entertainment, which should never be underestimated in its overall importance. Ask yourself how many people you know who are socially intelligent and prefer comedies accompanied with sarcasm and irony. They help hone our recognition skills in relation to understanding that an expresser does not desire to believe that the interpreter believes that the expresser believes what the expresser just said; this is irony or sarcasm in its simplest form.

The last three categories of mind (i.e., after *belief*, *undecided* and *disbelief*) relevant here include: (4) **Desirability** in which their is possibly an expressed interest in relation to reality despite what the individual's belief is (e.g., Maxi desires for a chocolate bar to be where he last placed it, and he believes it is there, but it is not there, i.e., Desire-Belief-Fiction); (5) *Undesirability* in which there is a disinterest, repulsion, dislike or a feeling of disgust in respect to reality (e.g., ; and (6) *Uncertainty* such that the individual not have a desire for reality to be a particular way in some respect or a desire for it not to be that way.

The 27 categories within the belief-reality-desire cubic triad represent the logical

options by which the principles of false belief tasks in social cognitive psychology must be understood. The concept of "belief" has been analyzed above, but the concept of desirability lacks the same intensity by which the former interconnected concept has been analyzed within contemporary philosophy of mind and psychology. It would be quite easy to ask individuals, their friends or family members to rate their desires for particular items before, during or after the experiment is conducted, and measuring such mental states, which range from great desire to neutrality to complete disgust and repulsion, would allow us to form more accurate conceptions of beliefs and the interrelations between beliefs and desires.

Moreover, the behaviorists, such as Skinner and Watson, during the mid-20th century did not properly take into account the mental states of individuals, which may greatly differ for any given individual after a number of years. Punishment, whether positive or negative, can only be understood in virtue of the aforementioned mental states since some so-called punishments are actually considered to be pleasurable to a group we call "masochists." Moreover, the implementation of the punishment may be desirable (i.e., for a sadist) or undesirable (i.e., for a pacifist), which depends on the particular mental states of the individual because there can be a wide variety of interpretations of truth-values based upon the interpreters' mental states to such folk claims as, "it hurts so good!," for instance.

II.iv. Belief-Desire-Reality Triad in Relation to Deception and

Descriptions about Reality

	(D) Deceptive	(N) Non-Deceptive
(K) Knowable	1 & 5 sarcastic, ironic, exaggerated or beguiling, non-literal wordings that are complex in meanings	1 & 5 straightforward, clear, and non-ambiguous literal wordings with simple meanings
(U) Unknowable	2-4, 6-9, & sometimes 1 & 5 Successful deceptions, lies, exaggerations & low-key emotional cues that change literal meanings of irony and sarcasm	2-4, 6-9, & sometimes 1 & 5; these propositions may be known as "unknowable"

Philosophy of Deception could be characterized as encompassing both the study of possible worlds because deception involves what could possibly be or what could be accepted as being the case (i.e., metaphysics) and the study of knowledge (i.e., epistemology). Moreover, the fact that the five branches of philosophy are traditionally logic, ethics, epistemology, metaphysics and aesthetics is arbitrary. The five branches could have been the philosophy of organization, philosophy of cleanness⁴³, philosophy of

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⁴³ I consider "philosophy of cleanness" to be the least obvious possible branch of philosophy, so I shall mention a few things that cleaning and cleanliness involve. Cleaning involves moving or removing and organizing or reorganizing things in some area. With nanotechnology cleaning involves removing all particles from the laboratory so that nanostructures are not destroyed, say, by some floating particles. Cleanness involves the air, water, and our bodies, burning materials, heat, medicine, hospitals, space ships and anything with which we come into contact. Philosophy of expression involves all language as well as facial expressions, gestures and what they mean or possibly mean or could be interpreted as being.

expression (e.g., of logic), philosophy of interpretation (e.g., of logic) and the philosophy of deception, for instance.⁴⁴

Imagine a person who places a long stick in the water and describes what she sees. The description includes words that express that "the stick is in two parts" (i.e., an optical illusion). The description itself is furthermore blatantly false because she has described *only what she observes from a particular vantage point* instead of including descriptions of the fact that she is viewing something from that vantage point.

In order for descriptions of illusions and hallucinations to be correct the experiencer of the illusion and hallucinator must describe the fact that she is experiencing, in addition to what is experienced, otherwise the description of the illusion or hallucination is subject to be interpreted by an audience as being "viewed by the describer as descriptive of reality," or it may be "viewed by the audience as descriptive of reality," regardless of what the intentions of the describer actually are. Let us call this problem of deception concerning the undescribed vantage point of the experiencer of the illusion or hallucination the "Excluded Experiencer Problem." One may thus take illusions, hallucinations and such aforementioned descriptions to be the essence of one of the two aspects of deception: (1) that which deceives; and (2) that which is being deceived. All lies, some forms of irony and all sarcasm are potentially (1), for instance.

Objects and events generally appear in such a way that they cannot be described correctly from one vantage point or even a few. For example, imagine the aforementioned circle moving away from you at a diagonal angle. The circle may at first

⁴⁴ Here, I shall not suggest a change in tradition though. I am merely suggesting that our historically developed traditions within the field of philosophy are contingent, which is one reason why the deconstructionism of Jacques Derrida was so powerful in relation to the interpretation of other schools of thought.

appear circular, and then it appears ovular, because it apparently changes its characteristics concerning the distance of the middle point of the circle in relation to the rest of the figure.

Is it fair to assume that we avoid deception by developing the ability to think of objects as being continuous and constant as we do with the circle? If we assume this, then psychological concepts, such as *object constancy* and *object continuity*, are the foundations by which we categorize objects and events in both deceptive and non-deceptive epistemological categories within a developmental context. So, all objects out of one's realm of perception could be appropriately described as deceptive for the infant (i.e., before the attainment of object continuity and constancy), but not for the healthy adult with these psychological, developmental attributes.

If our epistemic categorizations of objects and events are based upon these sorts of psychological notions, the vantage point of the describer is incredibly important in respect to the describer's level of development from childhood to late adulthood. Moreover, claiming that the presence of some object, such as the circle, is not deceptive for a describer because, or as a result of, the adult's psychological traits (e.g., object constancy) that allow her to avoid deception, is fallacious!

It is fallacious because the psychological mechanisms develop in order for the person to avoid this deceptive facet of reality in virtue of the sensing organisms, but "that which deceives" still remains for those within the earlier stages of development; this is true within the history of biological evolution and in consideration to the development of the individual organism. Thus, the sliding problem involves other cognitive mechanisms from the perspective of the development of individual organisms from birth and the

development of higher order cognitive traits via biological evolution.

Perhaps G. W. F. Hegel (1967 p. 284-5) writes more aptly within section (1) *Observation of Nature* about description and consciousness.

"When the unreflective consciousness speaks of observation and experience as being the fountain of truth, the phrase may possibly sound as if the whole business were a matter of tasting, smelling, feeling hearing and seeing. It forgets, in its zeal for tasting, smelling etc., to say that, in point of fact, it has really and rationally determined for itself already the object thus sensuously apprehended, and this determination of the object is at least as important for it as that apprehension. It will also as readily admit that its whole concern is not simply a matter of perceiving, and will not allow, e.g. the perception that this penknife lies beside this snuff-box to pass for an 'observation'. What is perceived should, at least have the significance of a universal, and not of a sensuous particular 'this'.

The universal, here regarded, is, only in the first instance, what remains identical with itself; its movement is merely the uniform recurrence of the same operation. The consciousness, which thus far finds in the object merely universality or the abstract "mine", must take upon itself the movement peculiar to the object; and, since it is not yet at the stage of understanding that object, it must, at least, be the recollection of it, a recollection which expresses in a universal way what, in actual fact, is merely present in a particular form. This superficial way of educing from particularity, and the equally superficial form of universality into which the sense element is merely taken up, without the sense element having in itself become a universal—this description of things is not as yet a process effected in the object itself. The process really takes place solely in the function of *describing*. The object as it is described has consequently lost interest; when one object is being described another must be taken in hand and ever sought, so as not to put a stop to the process of description."

The question "How do we avoid deception?" is another way of phrasing the question at the heart of philosophy in epistemology, i.e., "How do we come to know something?" How do we linguistically represent what matches reality when the

appearances so often do not match reality? That is, *what* is the essence of *describing*?⁴⁵ All of the considerations above are the essence of the general problem of deception we face everyday.

The question concerning the avoidance of deception is actually more challenging than the traditional epistemological question about gaining knowledge because it involves characterizing something that we often do not know about as being something that is misleading, a sort of double whammy. It also assumes a developmental context by which the interpreter must respond in manners which take different levels of development into deep consideration. Edmund Husserl's founding of the philosophy known as "phenomenology," after attaining his ideas about intentionality from the lectures of Franz Brentano and being influenced by the first experimental psychologist Wilhelm Wundt, provide us with the notion of *phenomenological reduction* in which veridical perceptions, hallucinations, and illusions are examined within very much the same manner (i.e., so that incorrect assumptions would not be made in relation to the status of the experience and whether it is representative of reality or hallucinatory, for instance) so that the intentionality of consciousness (i.e., the "directedness of consciousness" toward some object under some aspect) could lead to insights about the relation of humans as subjects attaining knowledge of objects.

I prefer to recognize humans as describers in this respect or to at least examine the role of consciousness in relation to our places in the world as describers in relation to descriptions. Husserl's analysis has been criticized by many philosophers, including Martin Heidegger and Hubert Dreyfus in respect to ignoring the everyday coping aspect

⁴⁵ I shall provide an answer to this question within the final chapter in relation to metaphysics and within the next section concerning philosophical psychology.

that encompasses most of human reality in which we are not experiencing and reflecting beings at all, but rather we are oriented beings dealing with objects for their sake or for our concerns.

Heidegger espouses a philosophy within his magnum opus *Sein und Zeit* (1927) that can be viewed as incorporating a non-biological approach to what a human being is, containing a different theory of truth than any type of correspondence theory in which a level of discourse via Dasein (or the human that is "there-being") occurs at the "ready at hand" level (i.e., zuhanden), in which items that concern Dasein are utilized as tools within a "context of significance," and the terms "belief, desire, consciousness, subject and object" are not used because Heidegger thought there was a serious overemphasis of the concept of consciousness, especially since the philosophical dualism of Rene Descartes and within the culmination of such radical overemphasis in the philosophy of Edmund Husserl (1859-1938).

While I have great respect for Heidegger's philosophy, contribution to phenomenology and existentialism, there is little emphasis within the almost century old literature that would shed light at present upon the NCC project and the notion of mental states, measurement of the attribution of mental states, and the metacognitive skills required and instantiated via the formation of metabeliefs, metadesires and the self-referential aspects of these notions. In short, Heidegger, Husserl and others do not present us with a philosophical analysis of the highest levels of social cognition, namely, the recognition and expression of the higher level metabeliefs and metadesires during sarcastic and ironic recognition and expression.

II.v. Descriptions Expressed by the Perceiver with Greater or

Lesser Certainty of their Truth-Values

	(D) Descriptive	(P) Partly Descriptive	(N) Not Descriptive
	of Reality	of reality	of reality
(V) Veridical	Descriptions are	Descriptions involve	An unsophisticated
Perception	Consistent with	inaccuracies on	describer
of the	the observations	behalf of the	
Describer	of the describer	describer	
		Descriptions are	Descriptions are
(I) Illusory	Descriptions are	likely to be	likely to be
Perception	Slightly inconsistent	consistent with	consistent with
of the	with the observations	the mental contents	the mental contents
Describer	of the describer	of the describer	of the describer
		rather than reality	rather than reality
(H) Hallucinatory	Descriptions are	The hallucination	Descriptions are
Perception	Largely inconsistent	either reflects	Likely to be
of the	with the content of	certain aspects	consistent with
Describer	consciousness	of reality or	the mental contents
	of the describer	partly involves a veridical	of the describer
		perception	

The examples of deception are seemingly endless. Think of the examples in biology, concerning reptiles and amphibians with bright colors that have evolved in order to mimic the coloration of poisonous species. A woman who stuffs her bra with tissues may deceive men into believing that she has been well-endowed with larger mammary glands than she has, but do we think of women, men and hermaphrodites who have had breast augmentation as deceiving us? Would the fact that a hermaphrodite appears to be a woman also be a deception? Is the latter a deception, or is the idea conveyed within the

concepts of "hermaphrodite" and "appears to be a woman" deceptive?

We are not concerned with this general concept of deception at this juncture because we are dealing primarily with expression, interpretation, mental states, and the intentions to deceive, although it is important to understand the general concept of deception in light of typical misconceptions that we may be prone to tacitly assume. So, allow me to demonstrate, through writing, examples of language and deception.

II.vi. Types of Deceptive Expressions and Interpretations of Language

There are various types of deceptive speech. The most obvious forms are lying, exaggerating, overstating, understating and misleading because they often involve the expression of something false and are conceived of as involving the intent to deceive. However, lying may not always be interpreted as a straightforward type of deception in such cases as with compulsive liars and white lies (i.e., lying in order to be polite, for instance). Sarcasm or being facetious and joking often involves the expression of something false as well. I shall first describe the distinction between telling a lie and expressing a lie, which marks an important distinction logically and linguistically.

i. One may state a true sentence such that the literal meaning of the sentence is true, but the sound, expression or way of conveying the sentence is intended to mislead the interpreter into thinking that the expresser means something different, possibly the opposite meaning, from that which was stated (i.e., the *truth with a deceptive cue*). For instance, imagine an expresser is answering some question, the actual and true answer is

and should be "true, right, or yes" and the like, and the expresser expresses his answer with a tone that sounds like the use of *thick sarcasm*.

(1) "YEAH, that is RIGHT!"

This might be the closest type of speech that describes the title of an Arnold Schwarzenegger movie titled *True Lies*. If the interpreter views this as being sarcasm, then the interpreter shall either come to believe that the expresser disbelieves the statement "yes, that is right" or that the correct answer is "no, that is wrong" because a sarcastic tone is a sort of cue that leads an interpreter to assume that there is a different meaning than the sentential meaning, and some non-sentential meaning is often interpreted. This example illustrates the "expression of a lie" rather than "telling a lie" because the individual expressed the sentence as if he did not believe that it was true, but the sentence is actually true, if the words were spoken in a sincere manner, for instance.

ii. The idea of *expressing a lie* and whether it is deceptive can be quite complicated. For instance, imagine a situation in which two teenagers, Tina and Tiffany, are talking about a guy named Emmanuel whom they find very attractive at their high school. Tina tells Tiffany that Emmanuel finds Tiffany attractive, and Tina disbelieves what she said to Tiffany. Let us temporarily assume that Emmanuel does find Tiffany attractive. Does the fact that what Tina said was true mean that Tina did not *tell* a lie (i.e., if and only if it is true that Emmanuel finds Tiffany attractive)?

We may take it that the statement, "Emmanuel finds you attractive, Tiffany," should be considered to be uttered by a person with a mind, beliefs and intentions so that we take the "Excluded Experiencer Problem" into consideration (i.e., Tina's beliefs are

not mentioned as part of the statement that Tina (the experiencer) expresses to Tiffany). If we consider certain facts about the experiencer, Tina, we may conclude that she both: (1) did not believe that her statement was true when she uttered it; and (2) she consciously expressed the statement in a way in which a person would express it if she believed the statement were true. So, let us rephrase the question from the previous paragraph about *telling a lie* and ask: Does the fact that what Tina *said* was true mean that Tina did not *express* a lie?

What Tina did say is not logically equivalent to Tina saying, "I believe that Emmanuel finds you attractive, Tiffany," which would be a blatant lie given our assumptions, but *is it not* a part of our speech to make claims without adding further that what was said is what we believe as expressers? Moreover, if she would have expressed the same words with a sarcastic tone, then she would not have expressed a lie, but sometimes we express sarcasm without a sarcastic tone or any cue.

Perhaps we should take Tina's intentions into consideration, but this brings about a plethora of complications. Let us assume that Tina would like to make Tiffany feel better about her appearance and attractiveness level. Tina believes Tiffany is more attractive than Tiffany believes herself to be. Assume also that Tina thinks that it would be funny if Tiffany were to ask Emmanuel to go with her to the cinema because Tina thinks he would say, "No." Would these facts help us at all in determining whether Tina expressed a lie or not? Do these facts allow us to determine that she expressed something sarcastically?

The statement that may later voice the sole reason for which one is "not lying" actually is often another "expression" of a lie rather than the "telling" of a lie, i.e., "I

(Tina) did not lie because what I said was true when I said it." The latter sentence is an expression of a lie if and only if it is expressed as if the individual believes it is true and if the contents of this quoted statement is not thought by us as transcending the fact that she disbelieved what she said originally (i.e., That Emmanuel finds Tiffany attractive).

A logical and definitional analysis is possibly an inferior approach to descriptions of lies that require semantic leakage control, higher ToM skills and desires and beliefs of the so-called liar in comparison to social cognitive techniques and investigations from the neurosciences. Perhaps the definition of lying should incorporate semantic leakage control because if we were to analyze Tina's speech act, content and question her, say, first without Tiffany and then with Tiffany present, then we may succeed in having both Tina and Tiffany concede that Tina expressed a lie, but that is still not infallible.

Spence et al. (2004) have predicted and provided confirmation that semantic leakage control or the *inhibition of truth-telling* during a response requires more brain activity within the ventral prefrontal regions whereas truth-telling with the expression of similar statements (i.e., statements that are no more or less complex in their meanings and grammar, for instance) have not been found to increase any activity within any areas of the brain more than lying, for example. Moreover, expressing or telling a lie rather than the truth is associated with increased activity within the dorsolateral prefrontal cortex (Frith, 1991; Spence et al., 1998).

It has been observed and analyzed in various cases, and psychologists have determined that it is statistically significant that the response time for a lie (as opposed to the truth) takes about 200 milliseconds longer (Spence et al., 2001, 2003; Farrow et al., 2003), and the responses that were lies are correlated with more intense activity within

the bilateral ventrolateral prefrontal cortex anterior cingulate cortices. Thus, the prefrontal portion of the brain appears to be incredibly significant in relation to the production of a lie within the experimental setting (i.e., as opposed to a setting in which the lie may possibly matter more in real life).

Ganis et al. 2003 gives us a great reason to distinguish between two very different types of lying: (1) rehearsed lies; and (2) spontaneous lies. From a neurological perspective both of these types of lying are similar in that there is increased activation within the bilateral hippocampal gyri and the bilateral anterior prefrontal cortices, whereas during truth-telling conditions there is far less activation within these regions. First, it has been verified that rehearsed lies are associated with more intense activity within the right frontal cortex than with truth-telling and spontaneous lying. Second, the spontaneous lies have been associated with greater activity within the visual cortex and anterior cingulate cortex than truth-telling and rehearsed lying.

It was maintained by Ganis et al (2003) that the anterior cingulate gyrus produced more activity during the instantiation of spontaneous as opposed to rehearsed lies at a fMRI focus of (4,6,39), which is 20 mm posterior to what was described by Spence et al. (2001) and Langleben et al. (2002 sect. 5b).

Overall, the neurological differences between rehearsed lies, spontaneous lies and truth-telling have been argued beautifully by Spence et al. (2004 p. 1760) such that

. . . the telling of lies resembles an executive process. On behavioral measures there is an increase in response time, relative to truthful responding . . . When fMRI has been used to study experimental deception, a consistent finding has been that of increased activity in executive brain regions, specifically areas of PFC and anterior cingulate gyrus . . . So far, to our knowledge, no published fMRI study has revealed increased activation in any brain region during truthful responding (relative to

deception, though the possibility of a Type 2 error cannot be unequivocally excluded).

Lying needs to be distinguished neurologically from sarcasm, irony and truth-telling accompanied with a "sarcastic tone" in order for lying to be distinguished neurolinguistically from other forms of insincere speech and deceptive reasoning. Sarcasm should be analyzed and compared with lying in relation to both rehearsed and spontaneous versions of sarcasm of which the last chapter includes an example of each. We may also consider examples in which an individual within the experimental setting says something true that he or she believes to be true but said it as if he or she is a liar that is expressing something so it appears that he or she is easily detectable as a liar (i.e., theatrically acting like a liar while telling the truth). Pretending plays an important role within the instantiations of deception. Spence et al. (2004 p. 1760) proceed

Taken together, our findings are consistent with the hypothesis that lying comprises an executive process and that truthful responding constitutes a relative baseline in human cognition. . . . As psychiatrists and neuroscientists, our interests in the cognitive neurobiology of deception has been motivated by a desire to understand the cognitive architecture of complex purposeful human behaviours. We are commonly confronted with the possibility of deception in the clinical arena and its meaning may be susceptible to multiple interpretations. From a biological perspective, our findings and those of others suggest that deception engages the higher centres of the human brain and places certain demands upon the cognitive capacities of the individual who is lying.

In relation to the philosophical psychological understanding of such findings there is a gap within the neurological literature in relation to verbal behaviors of other insincere types of speech, for instance, that must be handled within the expensive and tedious settings involving the fMR scanners and the statistical analyses of the neuroscientists.

iii. Equivocating is also a form of deception in which some word has more than

one meaning, and the word is used in two different ways in order to derive a conclusion in a prima facie valid way.

Mohammed's mother: Do you miss Mohammed?

Mohammed's girlfriend: I even missed him at the party before he left. So, I miss him an awful lot.

Equivocating is generally thought of as a logical fallacy, but here the girlfriend is using the same word as the mother with a different meaning in order to deceive the mother so that the mother shall think that Mohammed's girlfriend misses him. The mother uses the word "miss" meaning "vermissen" in German, which is longing for a person, for instance, whereas the girlfriend uses the term "miss" to mean "verpassen," which involves not being present at some event, for instance. "Puns" sometimes work in the same ways with humor. Equivocating can also be sarcastic to the extent that the expresser does not expect the interpreter to believe something one has said on the basis of a double meaning.

For instance two individuals are driving in a car and the driver asks her passenger whether she should turn left, and he responds by saying, "right," she turns left, and then he says, "I said right!" What if the passenger believes she should have and did turn left? To what extent does the attitude of the passenger matter?

iv. Imagine two philosophers of science partake in a debate. One philosopher, Grover Maxwell, is a scientific realist who believes that the observational/theoretical distinction that antirealists draw is untenable. The other philosopher, Bas Van Fraassen, is a scientific antirealist who believes that unobservable entities should be interpreted

realistically, but we should not just accept claims about theoretical or unobservable

phenomena as true.

After arguing for an hour in front of a few dozen students both of them come

across an interesting example not yet used in philosophy of physics. Bas Van Fraassen

describes an experiment concerning theoretical physics and the status of objects that are,

in principle, unobservable. Maxwell, however, disagrees that the experiment was

conducted the way in which Bas Van Fraassen describes it and so disagrees with some

implications involved.

Bas Van Fraassen: Let us make a wager. I bet you my car against yours that the way in

which I described the experiment and the implications, according to the experts in this

area, are correct.

Maxwell: Do you mean that if I am right, then I win your car, and if you are right, then

vou win mine?

Bas Van Fraassen: Precisely.

Maxwell: Well, I do not think so.

Bas Van Fraassen: That is what I thought that you would think.

We can interpret this speech as being deceptive in a way that results in Bas Van

Fraassen intending to make it explicit that Maxwell is unsure about whether Bas Van

Fraassen is correct in his descriptions of some experiment.

v. There are computers programmed to send information, pictures, words and

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even video and audio footage of people to internet users everyday and every second around the world. Often times these programs do not identify themselves as such, and sometimes they are programmed to assume the identity of certain people, for instance, the identity of a twenty-something-year-old woman who lives nearby and is sexually attractive rather than the computer programmer or the person or company that owns the program.

These programs are referred to as "flirting programs" and can potentially deceive individuals into giving personal information (e.g., credit card numbers, social security numbers and so forth) that may be processed and used for the benefit of the programmer or the programmer's employer, for instance. Computers are often programmed to send out announcements that people (e.g., like I have experienced on several occasions) have won a large sum of money, and clicking on some electronic button appears at first to allow one to claim the "prize money." However, the button might send your browser to websites with advertisements or be part of an online survey, for instance. The usages of language in virtual space are becoming more intricate and devious.

vi. "Appealing to ignorance" is one of the most effective forms of deception, especially when it involves an entire language that is prolific within some geographic area and culture. When one knows a language but nevertheless expresses the language much slower and unsophisticatedly pronounces the words, it facilitates a type of frustration and misconceived understanding within the interpreter that can allow the expresser to expend less time, effort and money than other speakers whom the interpreter converses with in a dialogue in which a sort of mastery of the language is expressed by

both parties involving listening comprehension, sufficient annunciations, vocabulary, context and linguistic patterns by both.

vii. "Sarcasm" is generally not defined as a form of deception, but it sometimes deceives even the most intelligent and socially and consciously aware individuals.

Additionally, it is often used to express something that is negative in a positive fashion, a sarcastic sounding tone is often interpreted as changing the intentional meaning of the sentence (i.e., away from the sentential meaning) so that it is not the same as the sentential meaning. Often times the expresser can intend something that is both different than the sentential meaning of the utterance, for instance, and the interpretation of the utterance, even if the interpreter recognizes that the utterance has been intended to have a different meaning than the sentential meaning; this latter fact makes sarcasm and irony quite deceptive.

In the latter case the interpreter recognizes the sarcasm, and forms a belief that the expresser did not believe that what he or she said was true; however, the actual intended meaning of the expresser is unknown. Furthermore, the latter deceptive nature involved with the expression and interpretation may indeed be the most prolific type of sarcasm instantiated

Imagine a conversation in which John and Benjamin are upset with one another.

Benjamin insults John, and John remembers that Benjamin has often been self-conscious of the fact that his mother had to drop out of college because she was pregnant with him.

Furthermore, on several occasions Benjamin's mother angrily told him that he ruined her life because he was born, so he has felt guilty for being a burden for much of his life.

Moreover, he had discussed these facts with John in the past. After being insulted by Benjamin and becoming thoroughly annoyed, John maintains the following.

John: You ruined your mother's life by being born. Why don't you just do us all a favor and kill yourself?!

Benjamin: (ceases talking and places his head down)

The example above matches the traditional example of sarcasm in which the person attempts to wittily cause pain or anguish via non-literal wordings, which is an exaggeration and a suggestive questions that is also not genuine since it is rhetorical and it makes the false assumption that his suicide would be favorable to his friend. I am able to include the latter fact since I have witnessed this instance.

viii. However, just because I claim to have witnessed the example does not mean that I actually did witness it. This is important to remember in relation to the first part of the tenth example.

ix. When deceptive reasoning is well thought, practiced and instantiated it can take the form of an elaborate strategy which may coincide with intelligence services and warfare. For instance, imagine an agent following a man under suspicion, and four other agents following the first agent so that they are out of the range for the suspect to see. The five agents switch places periodically so that the suspect does not perceive himself to be followed. The agents in this case have come to an agreement and have cooperated with one another in order to deceive an individual, distribute and reduce the amount of risk that may result after detection.

x. It is good every now and then, I believe, to lead the reader back into his or her own world in which he or she is "reading about that which one is reading."

Do not dwell on the following lines for more than a few moments please. THE PREVIOUS AND FOLLOWING PAGES HAVE BEEN LACED WITH A DEADLY FINE POWDER KNOWN AS THE ANTHRAX VIRUS. Turn the page and peer into the crevices if you disbelieve. It is very likely you have already been infected.

It would not have been difficult for me to have placed some powdery substance within the pages here in order to achieve that sort of response that does not happen the vast majority of the time in order to produce a very different state of awareness, namely, the awareness of the fact that it is risky dealing with objects, such as dissertations and reading materials. Reading about something is an action that involves risks like other actions because there are objects about which one could and sometimes should be very concerned (e.g., letters to US senators or any politician around the world), and if they lead to a fearful reaction, for instance, the ideas conveyed could be too much for the cardiovascular system to handle.

An internet version of this sort of deception might include a computer virus instead or the claim that the individual has become a victim of identity theft and fraud if he or she is using a personal computer. What if somebody, excluding the author, had placed a powder within the pages here? Wherein lies the deception and the deceiver or deceivers?

xi. Analyze the following italicized sentence: Please be quiet, or I will

accidentally spill my drink on you. What function does the word "accidentally" have within the aforementioned sentence? Is it necessarily deceptive? Does the word "please" function as a cue for politeness?

I have used the sentence several times in jest, but imagine the following situation in which a blind man is walking toward a loud child with a scalding hot cup of coffee.

So, he tells the child politely to be quiet while he is worried about shaking and spilling his drink, and since the blind man will not spill it on himself but away from himself, and he is walking toward the loud child, he warns the child in the most appropriate manner.

What if he were not quite blind but unable to see clearly? What if he were not quite shaking and he only considered spilling the coffee? At what point does eye sight become an issue and coordination? Can I say this in jest solely because I consider myself to be coordinated, and the people I have said this to consider me to be coordinated enough? At what point does the meaning of the sentence change based upon the context? This is incredibly vague.

xii. Young Socrates is with Diogenes looking at the redness of the sunset in Athens

Socrates: Diogenes, what do you think about all this "greenness" emanating from the sun?

Diogenes: Yeah right! (Socrates smiles) I know that you are thinking about redness, and I know that you know that I am thinking about redness.

Socrates: But did you know that I knew that you would know that I was thinking about redness before you answered my question?

Diogenes: Please try to be a little more humble if you can.

Socrates: Maybe I had formed a hallucination in which case, would we be talking about the illusory experience or hallucination, or would we be merely talking about their descriptions?

Diogenes: We would probably not be talking about their descriptions because your ironic nonsense does no more than describe the way in which the world is not!

Socrates: (smiles)

Interestingly, most of these types of deceptive expressions involve "telling the truth," except for the computer programmed messages and feedback and the example that involves the agents deceiving a single suspect. These types of deceptive expressions are often used specifically for the purpose of deceiving, although they can arise naturally as well, and I have provided a range of examples by which deceiving can be understood as a complex, multidimensional form of linguistic reasoning or expressions and behaviors that mislead those whom one has deceived. Moreover, it has been demonstrated that definitional accounts of these forms of deception are not yet sophisticated enough, especially within the philosophical literature, to account for the neurological findings.

II.vii. Levels of Consciousness and Higher Order Thinking

I shall describe the levels of consciousness, which extend from very low levels to levels that extend at least up to the level of awareness within the dialogue between Socrates and Diogenes in example xii.

- (1) Rudimentary Consciousness is an inner bodily awareness, especially in relation to the aspects concerning feeding, such as hunger, satiation, and in relation to excretion, specifically hard and soft feces, constipation, and especially relief and control of fecal matter. Rudimentary consciousness involves no external conscious awareness via sense perceptions.
- (2) Sense Perception Consciousness is an inner bodily awareness as well as outer awareness via sense perceptions, which include vision, tactile, auditory, gustatory, and olfactory senses. The sense of direction is also involved here as well as a sense of balance, but vision, for instance, may be considered a group of senses, such as a sense of color and depth. The limitation of sense perception conscious is that the organism or individual is not aware that it is consciously aware. So, for instance, a spider may be aware via its visual depth perception that a predator is near, but it could not be aware that it is aware of something in its visual field nor is it aware that it is aware of feeding on its male counterpart (i.e., the female black widow eats the male after mating).
- (3) Higher Order Meta-Conscious Awareness takes place when an individual is aware that another individual is aware and/or when the individual is aware of its own awareness, such as the moment an infant around 12 months recognizes itself in the mirror during the mirror stage as described by Jacques Lacan.
 - (4) Second-Order Consciousness (i.e., meta-meta-consciousness) takes place

when one is aware that a second individual is aware of a third individual's awareness about one's awareness, and this may be aptly described as taking place sometime after the age of three in healthy children.

- (4) *Third-Order Consciousness* (i.e., meta-meta-meta-consciousness) is instantiated after about the age of 5 years and allows children to recognize 2nd order false belief tasks in which the model of another person's beliefs is modeled about another person's beliefs, which is likely to involve beliefs about oneself.
- (5) Highest Orders of Consciousness take place during the understanding of irony and sarcasm as well as other sophisticated types of deceptions. Unfortunately, the field of social and neurological cognitive psychology is still in its infancy in relation to testing the most cognizant and intelligent individuals in the spirit of Abraham Maslow. The goal is to provide the behavioral, experiential, neurological and philosophical explanations into a single theoretical framework so that these challenges become organized and manageable, which will reduce the overall amount of gratuitous time, efforts and money expended on such tasks, namely, the highest levels of cognition and consciousness, which inevitably involve sarcasm and irony and the plethora of social cognizing that coincides with the recognition of these aspects of language.

Higher order levels of consciousness are ambiguous, and there are some criticisms that should arise with this rough approximation concerning the levels and grades of consciousness, but one should imagine that the modeling or meta-meta-representation that takes place within example xii above between Socrates and Diogenes is likely to

involve sense perception consciousness as well as various other levels of higher order cognition with the accompaniment of experiences associated with all of these various grades of consciousness.

Thus, the philosopher's zeal, which characterizes her description of the popular example of the vivid experience of the color red, is not merely an aspect of sense perception consciousness but a facet of various other forms of meta-recognition, reemphasizing the experience of redness with the thought of the experience of red with the idea of the idea of the idea of the color red, which may also, in the Humean sense, be properly described as "sensations" or "impression" of which we may recollect (i.e., form an idea). It is thus this ability to analyze (i.e., on many different levels what is derived from one of the lowest levels of awareness) that gives the philosopher such zeal in his explanation of the experience, although this so-called experience may be more properly characterized as a large set of experiences only made possible after years of education with language and trials and errors amongst the social crowds.

Levels of More Accurate Conscious Experiences: Delusions, Hallucinations, Illusions and Veridical Perceptions

Every aforementioned level of consciousness involves illusions, hallucinations and veridical perceptions, and the combinations of these form our worldviews, i.e., the desires and beliefs we have about reality and by which behaviors our predicted, categorized and explained. The lower level and higher level forms of hallucinations, illusions and veridical perceptions are more challenging to explain, which is why (2) sense perception consciousness is predominantly explicated in virtue of the types of

hallucinations described previously.

Certain mental disorders, such as schizophrenia and dementia, tend to involve the instantiation of certain types of hallucinations. For instance, it is argued that roughly fifty percent of schizophrenics have experienced auditory hallucinations, and of these the vast majority involves the conscious experiences of the voices of strangers (Noll, 2007).

Within the Introductory chapter in the section on the problems concerning the development of consciousness, it was maintained that the induction of hallucinations would allow biologists to maintain whether certain species have members with the accompaniment of consciousness. Hallucinations and Illusions are aspects of consciousness that involve systematic and probabilistic error. Since all the mentioned types of consciousness involve hallucinations and illusions biologists may be wise to inquire whether: (1) techniques can be developed and administered in order to determine that members are undergoing illusions or hallucinations; and (2) what species have only a minority of members which yield to experimental techniques that demonstrate appropriate responses in relation to what is expected to produce illusions and hallucinations?

Hallucinations concerning (1), rudimentary consciousness, may involve inducing hunger directly after satiation, which causes the organism to continue eating, and it may

⁴⁶ Karl Jaspers' volumes titled *Algemeine Psychopatologie* (1913) argue that is a better method of diagnosis for psychiatrists to determine the status of a patient's hallucinations on the basis of "form" rather than "content." The "form" involves the behaviors that can be observed by the analyst whereas the content concerns the experiences of the patient, which may be given as descriptions. Moreover, we may treat dreaming in much the same way since the descriptive "content" (i.e., from both a Freudian {dream content} and Jasperian perspective) given by the dreamer may be entirely inaccurate for various reasons (e.g., lying, problems concerning the memory of dreams, and misinterpretations by the analyst, say, with irony). Thus, the "form" of the dream might be more worthy of exploration because this would allow: (1) other species to be studied from the same viewpoint (i.e., without giving priority to the psychoanalytic perspective, treatment of the dream contents and associations about what thoughts are correlated with the contents; (2) the priority of dream theories with humans as the main focus would be replaced with other species (e.g., dogs, cats, sloth, ostriches and mice); and (3) first-person descriptions of subject info may be less valuable.

be assumed that the animal continues to eat (i.e., in an unusually extended time period and in greater amounts) on the basis of its mental contents, if we have reason to believe that an experience of hunger has been instantiated. That is, in what ways could we conceive of measuring, inducing and analyzing the content of hallucinations in such miniscule organisms? This involves human consciousness as well, which was explained in relation to the imperceptible sliding problem of consciousness. Determining such challenging questions, creating techniques and implementing them in order to induce hallucinations may allow us to solve the sliding problem within the history biological evolution from unicellular organisms to fully conscious and sarcastic humans.

The hallucinations and illusions concerning (2), sense perception conscious, are the typical optical, auditory and tactile hallucinations with which we are familiar, and certain techniques allow hallucinations and illusions to be induced in relation to our senses of balance, self (Metzinger, 2003) and direction. However, the induction of hallucinations and illusions within other species will allow us to hypothesize about the mental contents of other species if we can measure and organize data after successful techniques have been implemented to produce hallucinations. We may begin with bees by inducing color illusions. The question is how they react differently to mental contents in such states.

Hallucinations and illusions involved with (3), (4) and (5), i.e., higher order consciousness, involves placing certain incongruent factors into the experimental settings and accounting for the results statistically. Basically, the instantiation of a misinterpretation of one person who forms false beliefs about another person's mental states has hallucinated or formed an illusion. One may, for instance, place a picture of a

facial expression of a surprised man for 20 ms in amongst the video frames with the same man who appears bored while he is performing some mundane task. By placing a few video frames of the individual with the surprised expression into the video, the subjects may interpret the mental states differently, although the threshold for conscious awareness of the "surprised look" was not reached. The formation of false beliefs in higher order cognitive tasks allow certain limitation to be drawn by which a theoretical framework could yield quite fruitful results for new directions within the sciences.

The instantiation of higher order cognition involves various different types of deceptive reasoning which may be categorized as different forms of non-literal speech, including lying, irony and sarcasm. There are in fact different types of irony and sarcasm, and we have already analyzed the different forms of lying in which a neurological analysis appears to present a quite different picture of *rehearsed* versus *spontaneous lying* that is measurable and able to be systemized.

Dreaming: Conscious Experiences of another Kind

There are other types of conscious experiences, such as the type of consciousness instantiated during the dream state, which has been of interest to the field of philosophy since Aristotle's work *On Dreams*, from the argument within Descartes' methodological skepticism that argued we cannot know when we are not dreaming to the anti-Cartesian arguments of Norman Malcolm (1956 p. 21) in which he argues that "if a person is in *any* state of consciousness it logically follows that he is not sound asleep," so dreams are therefore not experiences whatsoever, according to Malcom (1956 & 1959; Metzinger, 1999 & 2004).

Modern insights have allowed us to categorize dreams as "conscious experiences" in various degrees when they are compared to prelucid, semi-lucid and lucid dreams (Barrett & McNamara, 2007). Both dreams and waking states are construed as global, integrated and phenomenologically transparent types of models of reality in which Metzinger (Barrett & McNamara, 2007 p. 195) claims that "one can say that dreams are conscious experiences because they satisfy the constraints of *globality*, or the activation of a global model of reality, of *presentationality*, or the integration of this model into a virtual window of presence, and of *transparency*, since this model of reality is not recognized as a model by the experiential subject."

However, this describes the waking state as well. The most comparatively remarkable difference between dream and waking experiences is an absence of sensory stimuli that are external to the dreamer. The reason for this in "normal dreaming" (i.e., as opposed to disorders like REM sleep behavior disorder) includes the inhibition of postsynaptic motor neurons within the spinal chord and brain stem. There are both input and output blockades, and when the external stimuli reach a certain threshold, then internal signals create more intense activity within the sensory cortices of the brain.

Dreaming is an altered state of consciousness and very likely represents a presence of increased cognitive activity associated with the waking state in contrast to the normal dream state described by patients in sleep laboratories in which certain modes of sensory experiences rarely occur, such as those associated with tastes, smells, pains and itches. Moreover, since attention at high levels and *voluntary behaviors within the dream* performed by the dreamer are described as being weaker generally or non-existent, we may assess that there is tendency concerning an increased level of awareness during

waking states versus the dreaming states of some members of species. The cognition of the dreamer is thus reduced and the ability of *metacognitive assessment* is perhaps totally absent (i.e., the capability for one to recollect thoughts and impressions about oneself), and this means that the individual might be unable to recognize one's own intellectual inconsistencies.

Moreover, short-term and long-term memory, declarative and motor memory are reduced within the dream state. Since conscious experience via dreaming and wakefulness are perhaps the most important modes of conscious experience in sheer virtue of their durations in respect to our lives, we thus have comparatively different states by which psychological and comparative studies⁴⁷ can be conducted in relation to each sense perception modality (i.e., especially those less common during dreams), memory, cognition, metacognition, volition, and the sophistication level of dreamt speech and expressions and their interpretations versus the highest levels of metacognition of the subject during the waking state.

Given the deficits in relation to cognition during the dream state, and the absence of information within psychology literature about dreaming irony and sarcasm, it is questionable whether the dream state would allow the expression, interpretation and recognition of irony or sarcasm. Moreover, if irony has been, in fact, instantiated within the dream state, the possibility of types of irony that are expressed (i.e., spoken by some dreamt persona) in order to bring insult to the interpreter (i.e., within the dream state) could very well change our conception about the status of sarcasm. Can sarcasm be expressed, recognized and interpreted during dreams?

⁴⁷ Sophie Schwartz and Pierre Maquet (2002) compare various different characteristics of strange dreams with neurological, physiological and phenomenologically interesting disorders, such as Fregoli syndrome.

Obviously, the deficits which characterize typical dreaming would disallow such high-level metacognition. However, there are various types of dreaming

There may be many evolutionary and psychologically advantageous characteristics attributed to dreaming.

II.viii. Irony, Kinds of Sarcasm and Origins of "Sarcasm"

Irony may be categorized in at least three different ways, namely, irony about fate, Socratic irony and expressional irony. *Irony about fate* concerns statements or questions that refer to some set of circumstances, and such remarks about irony are true and can be interpreted as obviously straightforward (Muecke, 1970; Kreuz & Glucksberg, 1989). For instance, Alanis Morissette's song titled *Ironic* rhythmically proceeds:

(1) Irony about fate: "An old man turned ninety-eight. He won the lottery, and died the next day... It's a death row pardon two minutes too late... And isn't it ironic? It's like ten thousand spoons when all you need is a knife." It's meeting the woman of my dreams and finding out that she has a beautiful wife.

Another form of irony is called *Socratic irony*, which is "pretending ignorance during discussion." An individual may utilize Socratic irony by admitting to one's own ignorance and appearing just as if one is willing to learn as one interrogates another person over the meaning of a term or during the exposure of this second party's contradictions via lines of thoughtful questioning. Socratic irony has neither been well-defined nor has it been mentioned very often within psychology literature.

(2) Socratic Irony: The technique that involves an expresser E, in some scenario

such as the one concerning Socrates within the dialogues of Plato (e.g., Euthyphro), in which expresser E criticizes E negatively, claiming, for instance, that E does not know much at all about the subject matter of discussion. The implementation of Socratic irony also includes praising, complimenting or making appropriate and positive remarks about the conversation partner's expressions. The contrast between the expresser intelligently criticizing herself and the conversation partner being praised by her tends to facilitate the instantiation of the conversation partner speaking openly or freely without being excessively cautious, which allows expresser E to gain more information about the subject matter concerning the knowledge of some conversation partner P.

At this point irony may be argued to enter the conversation when E begins to interrogate or critically analyze the problems which P faces as a result of P making contradictions, being ignorant of the subject matter, committing fallacies and the like. It is ironic because the beginning of the conversation appears to negatively portray the knowledge of the expresser and positively depict the intelligence of the other conversation partner, whereas at the end of the conversation vice versa is the case.

Contrarily, the form of irony called *expressional irony* may not explicitly refer whatsoever to any ironic circumstances or events. Expressional irony involves an expresser⁴⁸ expressing some attitude toward an individual, object or event in order to express something which is actually false (i.e., a literally false statement or if it were written as being literal). This is the type of irony that we are concerned with here. There are three types of expressional irony, namely, regular *sarcastic irony, reverse-sarcastic irony* and *nonsarcastic irony*. Kreuz and Glucksberg (1989 p. 374) maintain that "there

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⁴⁸ Kreuz and Glucksberg (1989 p. 374) use the term "verbal irony" to describe what I call "expressional irony," but their analysis leaves out considerations of sign language and Braille, which are important forms concerning the expression of sarcasm, especially for brain research.

is a consensus in the literature that in using sarcastic irony, people utter what is blatantly false in order to convey a negative and truthful comment on some topic, as in

(3) 'How clear and sunny it is, with such gentle southerly breezes!'"

uttered during a howling gale after a weather forecaster had promised sunny skies and gentle southerly breezes." (Note: that the idea of an utterance only applies to the more specific conception of verbal irony rather than the general conception of expressional irony, which applies to sign language and tactile communication, such as Morse code and Braille)

Reverse-sarcastic irony involves the expression of something that is false for the purpose of conveying a true and positive comment on some matter. For instance, imagine a setting in which Michael Phelps has just won his eighth gold medal in the Beijing Olympic games, and his sister says,

(4) "Well, is that the BEST you can do? It was a pretty shabby performance. I guess your embarrassing experiences here will teach you to practice harder next time!"

Michael Phelps should expect that his sister is voicing something that differs from the literal meaning of her words expressed and that she intends to convey the opposite meaning if he interprets her sarcasm correctly. Reverse-sarcasm appears not to occur quite as often as sarcastic irony in ordinary usage. This is indeed an example of sarcasm if Phelp's sister intended to give at least a somewhat painful remark to her brother.

A third type of sarcasm, which does not involve irony, may involve insincerity and the expression of gratitude. For instance, imagine that a child's mother has just finished preparing and serving a tasty meal after working in the kitchen for two hours, and her son drops his plate, which shatters on the floor. She exclaims,

(5) "Thank you so very much!"

This sentence is an expression that may have two very different meanings. Speech-act theory (Searle, 1969; Miller & Glucksberg, 1988) distinguishes between the *intended meaning* and the *sentential meaning* in relation to the usage of language that conveys either something more (i.e., possible intended and implicit exaggeration) or something different (i.e., possibly the opposite) than the meaning of the words expressed. Although the mentioned example is not explicitly categorized as a proposition or statement because it is not a sentence that is either true or false, we can still describe the intended meaning of the expression as being different from the sentential meaning partly because it is negative, whereas the sentential meaning is positive.

The third type of expressional irony is referred to by Kreuz and Glucksberg (1989) as *non-sarcastically expressed irony*. Thus, we have demonstrated that we can use sarcasm without being ironic, and we can be ironic without being sarcastic. For instance, imagine that there is a storm that makes the power cease in most of a city district, and someone says,

(6) "Beautiful weather we have here!"

Instances such as (6) are described as nonsarcastic because they are not designed to be insulting or to bring anguish to anyone, but often these sorts of remarks represented by example (6) do indeed bring anguish. For instance, imagine three people, and one says, "Beautiful weather we have here!," in the situation illustrated above example (6), and one listener understands and interprets the case as being sarcastic because the second listener does not understand or recognize the intended meaning. The first listener responds appropriately with recognition, but the second responds inappropriately without recognition.

Redefining Sarcasm and Irony: Examples (1) through (6)

Examples (3), (4) and (5) may not insult anybody at all. An interpreter may find this language appealing because there is a positive connotation that we may call the sentential meaning of the sentence. In fact, example (5) illustrates a typical use of sarcasm in which something positive is expressed about a negative happening, and it does not seem attractive to have something negative expressed in addition to what already is negative.

Allow me to illustrate some definitional problems with the term "sarcasm" and redefine the word "sarcasm." A word that can usually be used as a synonym with sarcasm is a "facetious" expression, which means that "some expression is not meant to be taken sincerely, seriously, or literally." "Facetious" can also mean "joking and amusing" or "having no serious intent, something concerning the nonessential and frivolous, such as a facetious person." The word "facetious" originates from "facete" (i.e., clever or witty) and "ious" in the late 16th century, whereas the word "sarcasm" originated from a quite different meaning than is currently used but is still relevant.

The Greek word "sarkasmos" meant "some sneer, jest, taunt and mockery," which apparently was derived from "sarkazein," meaning "to sneer and speak bitterly"; however, the literal meaning of "sarkazein" was "to strip off the flesh." "Sarcasm" is thus closely related to the words "sarcoma" and "sarcophagus" respectively meaning "tumor or (fleshy growth in the 1600s)" and "stone coffin, especially with décor," and the Greek word "sarkophagus" means literally "flesh eating," the meaning of which the word "sarcophagus" is derived because ancient limestone sarcophagi consumed flesh quickly.

"A biting, cutting or sharp and often ironic remark with the intention to wound" is a common definition of "sarcasm." However, this popular definition needs further analysis because sarcasm has become such a common aspect of everyday language and comedic humor that people often do not take sarcastic comments to be insulting and people often times do not interpret the intentions of the sarcastic expresser as negative. Moreover, many times when so-called "sarcastic comments" do actually wound, the intentions of the expresser are positive rather than negative in relation to wounding, ridiculing and "biting and cutting" with the tongue.

The Fundamentals of Sarcasm

Sarcasm: A form of expression of language often including the assertion of a statement that is disbelieved by the expresser (e.g., where the sentential meaning is disbelieved by the expresser), although the intended meaning is different from the sentence meaning. The recognition of sarcasm without the accompaniment of a cue develops around the beginning of adolescence or later. Sarcasm involves the expression of an insulting remark that requires the interpreter to understand the negative emotional connotation of the expresser within the context of the situation at hand. Irony, contrarily, does not include derision, unless it is sarcastic irony. The problems with these definitions and the reason why this dissertation does not thoroughly investigate the distinction between irony and sarcasm involves the ideas that: (1) people can pretend to be insulted when they are not or pretend not to be insulted when they are seriously offended; (2) an individual may feel ridiculed directly after the comment and then find it humorous or neutral thereafter; and (3) the individual may not feel insulted until years after the comment was expressed

and considered. Thus, the scornful function of sarcasm shall not be examined further within the context of a single expresser and interpreter, but it will retain its insulting and ridiculing connotation within the final chapter concerning ideologies.

Sarcastic Expresser: Developmentally speaking, it is difficult to determine at what age an individual is able to express sarcasm in which an Expresser E does not expect some interpreter I to believe that E disbelieves what E expressed. Six-year-olds possess the skills of *semantic leakage control* in order to lie convincingly throughout long durations concerning the relevant lies or web of lies. They instantiate second-order ToM skills in relation to second-order false belief tasks; however, they do not utilize the verbal skills involved with sarcasm. Adolescents hone these skills quite effectively by the age of twelve or thirteen. Males express sarcasm more than females, and sarcasm is expressed more with friends and family than amongst strangers. Usually sarcasm is expressed with a positive verbal sentence that has a negative connotation rather than a negative sentence with a positive intent.

Sarcastic Interpreter: The sarcastic interpreter is one who is placed in the position in which one must either retain attention, ignore and either determinately recognize, lack recognition of the matter or indeterminately recognize some expresser's sarcasm.

Interpreters of sarcasm generally consider sarcastic and ironic expressers to be less annoyed than individuals who express direct insults.

Sarcasm Recognition: These situations readily allow beliefs about higher order meta-

beliefs to arise. Recognition involves the *correct interpretation of the intended meaning of the expresser*, which usually first involves the recognition of the sentential meaning of what was expressed, although it is interesting to consider cases in which an individual might recognize *sarcastic remarks* without interpreting or recognizing the sentential meaning. Perhaps the more important aspect to recognize is the *intended meaning* rather than the *sentential meaning* because there is a notion of "success" coinciding with the recognition of the intended meaning. Conversation may involve several sarcastic exchanges between participants who are both recognizing that each others' sentential meanings are false while agreeing with their partner's intended meanings. A particular amount of conversational ease may follow as a result of their tacit agreements about, namely, what is not the case via the utterance, for instance, of claims that might sound as if they take them to be the case.

The interpretation of the individual need not require *prima facie* a dense hermeneutical theory, but may rather begin with a minimalist hermeneutical theory that would more closely resemble the hermeneutics of Hans-Georg Gadamer than many of his predecessors, such as Ast, Dilthey and Heidegger, since the intention to recognize (i.e., the recognized intention) in the case of sarcasm and irony is that the person *does not* mean the literal sense of his or her expression. That is, the starting point of a hermeneutical theory could very well be the study of the interpretation of language concerning disbelieved statements, claims and the like—during which the expresser neither intends for the interpreter to believe that his statements are true nor that the statement is true. Since not all sarcastic and ironic expressions are statements, this presents a challenge, which is explained by Wittgenstein in relation to Frege's assertion-

symbols (see II.ix). Of course, the recognized intention is a mental state that is referred to as belief and always coupled with some level in between outright desirability, indifference or disgust, and attention and memory are requisite for the recognition of the intention of the expresser.

It appears as though an interpretation of a sarcastic or ironic expresser would be quite easy because there are only two alternatives: (1) the expresser E believes what E said; therefore, sarcasm and irony are absent; or (2) E disbelieves what E said. However, in the latter case the interpreter I tends to consider whether E believes that I believes that E believes what E just expressed is what E believes. There is a consideration about whether the sentence expressed is true or not (i.e., correspondence theory of truth). Furthermore, there is a context of significance by which

Principle of Sarcastic Reason: We form the following principle in relation to any statement asserted by, for instance, any philosophy or theorist, which is: The individual asserting any proposition P may not expect any interpreter to believe that s/he believes his or her own assertion. The individual may not act in manners and with etiquette that s/he claims "how thou ought to act."

One key aspect that these definitions do not provide is the *desirability-level of an interpreter* to recognize the negative meaning of the sarcastic statement, which may leave an individual feeling humiliated and ridiculed. However, the meaning of the sentence taken out of context and translated in writing without stressors or terminology regarding emotions can be interpreted as positive, which is derived from the fact that people do mistake sarcasm for positive encouragement or politeness.

Is concealing something negative by expressing something positive actually worse than expressing something negative, which is true? For instance, if a boss observes an employee damage communications between their business and some clients, and then the boss says in response to his employee, "Great job, genius!" is it not worse for the boss to describe the negative event as being negative rather than positive? For most Western cultures it appears that the sarcastic comment is not any more wounding than the sincere one. In fact, in many instances the serious and direct comment is interpreted as being more negative.

Take an example of sarcasm described by an undergraduate student. Two acquaintances spend time with one another because Ryan is friends with John's sister. Ryan notices over the past few years, and it has been explained to him by John, that John dates and becomes romantically involved with less attractive women (i.e., less attractive on a scale in comparison to John). Annoyed with John, Ryan says to him in a café, "Didn't you meet your last girlfriend at the abortion clinic?" John's response came to Ryan with no surprise, which involved silence and John putting his head down.

Within such instances one may claim that John realizes that Ryan knows and expects John to believe that Ryan actually disbelieves what the question can be argued to assume, namely, that John met his last girlfriend at the abortion clinic. However, Ryan was actually using sarcasm to point out the fact that John has been continuously selecting morally questionable women who are also unattractive. In fact, Ryan said to me that he was implying that John has been "slumming it" (i.e., John has been choosing women possibly on a whole range of lower standards. The extent to which John understood Ryan exactly remains ambiguous especially since Ryan was affected by the sarcasm in an

emotionally negative way.

Moreover, affirming any sort of ToM skills and knowledge that John has about the beliefs and desires of Ryan in that instance would involve a dubious psychoanalytic approach since the beliefs and desires of John and attributions of these mental states by John to Ryan would most likely change drastically as time elapses and as John copes with the "biting sarcasm." This may lead to the following philosophically significant questions about the human psyche and psychoanalysis: Is there an instance in the midst of the analyst and patient during which the application of sarcasm by the analyst would have more positive consequences over a long-term or short-term period? What about the patient's use of sarcasm and insulting the analyst in various ways that is actually heart-wrenching?

What then is the place for non-literal speech within the field of psychoanalysis?

How does the philosophical logician account for such meaning within statements (i.e., rather than in the form of a question in the latter example) that have deductive consequences? We shall explore the latter concern within the final chapter and within the following section.

II.ix. The Liar's Paradox, Wittgenstein's Philosophical Notation & the Sarcasm Paradox

I translate Ludwig Wittgenstein (1967 pp. 118-119; 2001 p. 9) quite differently than G. E. M. Anscombe in both Wittgenstein's books, *Philosophische Untersuchungen* and *Zettel*. As part of my methodology I utilized a Casio EW-G5500V EX-word translation device, which signifies some of the differences between Austrian German and High German, for instance.

Within the following selected passages of *Zettel*, which reference parts of Wittgenstein's *Philosophical Investigations* also translated by the author here, Wittgenstein raises serious questions about the relation of logical tautologies, contradictions and the undecided nature of the truth-value judgment, all of which are consistent with the analysis of the Belief-Reality-Desire triad previously explicated. Lastly, he ends this piece of his language-game with the liar's paradox.

681. 'If p is the case, then q is the case' could be called a conditional prediction by one. Therefore, for the case of not-p I make *no* prediction. But that is why what I say will also not be made true (or be verified) through "not-p and not-q". Or additionally so: there are conditional predictions and 'p implies q' is *not* such.

682. The sentence 'If p is the case, then q is the case', I want to call 'S'. -'S or not-S' is a tautology: but is it (also) the sentence from the excluded third part (or the law of the excluded middle)?—Or additionally so: If I want to say that the prediction 'S' can be

correct, false or undecided, will that through the sentence 'not (S or not-S)' be expressed?

683. Is the denial of a sentence identical with the disjunction of the unexcluded cases? It is in many cases now. (For instance, in this: 'The permutation of the elements ABC, which he wrote, was not ACB.')

684. The important sense of the Fregean assertion-symbols will perhaps at best be prepared through us saying: it denotes clearly the *beginning of the sentence*.—That is *important*: because our philosophical difficulties, concerning the nature of the 'negation' and the 'way of thinking' connected there together, include the sentence '¬ not p', or '¬ I believe p' as well as the sentence 'p', but not '¬p'. (Because if I hear somebody say: 'it rains', I thus do not know whether I have heard the *beginning* of the sentence.

Wittgenstein's section 682 is an important picture of thought in relation to this dissertation since the undecided nature of belief and desire (i.e., *iff* one could decide whether an object is desirable) are significant aspects of the theoretical framework by which reality is argued to be largely deceptive in essence. The Germans refer to the undecided nature of a truth-value judgment as the "excluded *third part*" (i.e., der Satz vom ausgeschlossenen Dritten), whereas English speakers consider it to be the "excluded *middle*," and the latter portrayal allows there to be more than three different truth-values, which is one of the most important aspects of logic (i.e., the law of the excluded middle). Wittgenstein is inquiring whether the negation of a tautology *must or ought to* lead to a contradiction or whether there is another option available (i.e., the undecided nature of the judgment as it is represented as a truth-value). I have interpreted the idea of the

excluded middle to be "?(S $v \sim S$)" in the latter chapter concerning sarcasm and the function of beliefs and recognition of non-literal wordings.

Interestingly, Wittgenstein's philosophy views both the tautology and the contradiction within the same category (i.e., preventive measures within the language game that act like walls, disallowing the analyst to move in some direction and propelling the analyst back and forth in the case of the contradiction). Since it is impossible to do any more with a tautology than with a contradiction (i.e., what can be inferred from either?), a contradiction should not be analyzed as "something to avoid," but rather the philosopher should manage both the tautology and contradiction wisely within the language-game.

684 argues about the importance of sensation in relation to the understanding, interpretation, logic and expression of language and that Frege's assertion-symbols make it clear exactly where the *beginning of the statement* resides from which the interpreter can place the meaning.

681 through 684 reference Wittgenstein's previous work in his Philosophical Investigations (2001 p. 9). Pay particularly close attention to the third paragraph, and consider the usage of capitalization and the transition of verbs to nouns, which Wittgenstein capitalizes in his original and my translations a very different than Anscombe's.

22. Frege's view that in an assertion lies an assumption, which is each thing asserted, what shall be asserted is based actually on the possibility, which there is within our language, to write a proposition (or assertion-sentence) in the form 'It shall be claimed

that so and so is the case'—But 'that so and so is the case' is just no sentence in our language—it is additionally no move in the language-game. And I write instead 'It shall be claimed that . . . ' 'It shall be claimed: so and so is the case', then the words 'It shall be claimed' are just superfluous.

We could also very well write every claim in the form of a question with the pursuit of affirmation or approval; For instance: 'Is it raining? Yes'. Would that be a sign that in every claim resides a question?

One well has the right to use an assertion-symbol (or assertion mark) in contrast, for example, with a (question mark or) question symbol; or if one wants to make a distinction between an assertion and a fiction, or an assumption. It is just incorrect if one means that the assertion now exists as two files, the Considerings and the Claimings (attaching the truth-value, or something of that nature) and that we carry out this filing after the punctuation mark of the sentence is roughly equivalent to singing after the notes. With the Singing after notes is indeed the loud, or compare quietly Reading the written sentences, but not the 'To-Mean' (way of thinkings) of the read sentence.

The Fregean assertion-symbol emphasizes the *sentence beginning*. It also has a similar function, like the conclusion-point (or period). It distinguishes the entire (time) period of the sentence *in* the (time) period. When I hear one say, "it is raining," but I do not know whether I have heard the beginning and the conclusion of the (time) period, so it is this sentence for me that still has no middle of communicated understanding (i.e., kein Mittel der Verständigung).

Within the second paragraph above Wittgenstein brilliantly and *explicitly* implies

via the function of a series of two questions, which are redirected in order to maintain that they are assertions *in need of confirmation*, that if Frege is correct in that within every assertion or statement resides an assumption, then within every assertion resides a question that needs verification or approval. Wittgenstein utilizes the technique of rejoining written aspects of the language with verbal rejoinders, and vice versa, so that the responses to comments about spoken language are criticized in relation to certain facts presumably about both written and spoken language.

Wittgenstein's third paragraph criticizes a set of assumptions that psychologists have continuously made throughout the 20th and 21st centuries, namely, analyzing some statement as having two, possibly, very different meanings, the literal meaning (i.e., Wittgenstein's Considerings or "Erwägen") and the emotional or intended meaning (i.e., Wittgenstein's Claimings or "Behaupten"). This implies that some sentence only has one meaning, so we may analyze a sentence, "I have analyzed THAT SENTENCE co-rrect-ly!," such that it has a literal meaning, which is claimed (i.e., "I have analyzed that sentence correctly"), and it has an intended meaning, which is merely considered rather than known to be the case by the interpreter (i.e., I did analyze that damn sentence perfectly, you moron! . . . or something of that nature); however, Wittgenstein rejects this view of dividing sentences in such manners and compares it to "singing after the notes," which is appropriate since it is impossible to sing without notes.

The aspect that we refer to as "notes" is inseparable from singing, although notes do indeed take place without singing, singing cannot take place after the notes since singing is defined as being, necessarily, notes themselves. The words of songs that are sung can be written down, but they are not argued against by virtue of the fact that they

are placed within a musical genre. The principle concerned with singing and notes does in fact apply to the sentence above and any assertion, namely, "I have analyzed THAT SENTENCE *co-rrect-ly!*," which is not logically equivalent nor, arguably, roughly equivalent to the two following sentences: (1) "I have analyzed that sentence correctly.; and (2) I did analyze THAT DAMN SENTENCE perfectly, you moron! Could we claim that (1) and (2) are logically equivalent, in combination, with the preceding sentence, if both the expresser and interpreter agreed that they were, or would this merely say something about the time period in which the agreement took place?

Wittgenstein proceeds within his Zettel (p. 119) and translated here:

- 685. A contradiction hinders me in the language-game from coming to the truth.
- 686. But let us suppose that the language-game simply exists therein, and I am constantly being propelled from one decision to the opposite directions!
- 687. The contradiction is not to be interpreted as disaster, but rather as a wall, which reports to us that here we can not continue further.
- 688. I would not like so much to ask "What must we do in order to avoid a contradiction?", as "What should we do if we are managing or doing enough with a contradiction?"
- 689. Why is a contradiction more frightening than a tautology?

690. Our motto could be: "Disallow us from performing magic!"

At precisely this point in translating Wittgenstein's work in *Zettel* (691.) it is most appropriate to include his cited work directly before section 691 amongst his earlier works titled *Philosophical Investigations* (2001 sect. 16 p. 6-7) published in 1945. However, sections 16 within *PI* refers directly to sect. 8 in which case it is also necessary to understand the 1st and 2nd sections of Wittgenstein. So, from the *PI* I shall translate sections 1, 2, 8 and 16 with the exception of St. Augustine's writings of which I shall present G. E. M. Anscombe's translations. I take this to be part of Wittgenstein's "Language-Game."

1. "When they (my elders) named some object, and accordingly moved towards something, I saw this and I grasped that the thing was called by the sound they uttered when they meant to point it out. Their intention was shewn by their bodily movements, as it were the natural language of all peoples: the expression of the face, the play of the eyes, the movement of other parts of the body, and the tone of voice which expresses our state of mind in seeking, having, rejecting, or avoiding something. Thus, as I heard words repeatedly used their proper places in various sentences, I gradually learnt to understand what object they signified; and after I had trained my mouth to form these signs, I used them to express my own desires" (Anscombe, 2001 p. 1).

In this word we are receiving, so it seems to me, a certain picture of the nature of the humanly language. Namely this: The words of the language are naming objects or

standing-against (Gegenstände)-sentences are connections of such designations. In this picture of the language we find the roots of the idea: Every word has a meaning. This meaning is assigning or classifying the word as belonging to something. It is the object or standing-against (Gegenstände) for which the word stands.

Augustine does not speak about a difference about the parts of speech. To whom the Learnings of the language are so described, do think, as I would like to believe, initially about nouns such as "table," "chair," "bread," and the names of persons, which only in the second case of the names, shall one discover certain occupations or activities and qualities and the remaining parts of speech as something.

Think just about this use of the language: I send somebody shopping. I give him a sheet of paper (i.e., Zettel) on which appear the symbols: "five red apples". He carries the slip of paper to the male grocer who opens the drawer from which appears the symbol "apples"; then he searches in a table for the word "red" and finds it opposite of a color sample; now he says the row of the cardinal numeral-I do accept- he knows it from memory - until the word "five" and for every numeral he takes an apple out of the drawer, which the color of the sample has.

So, and similarly, one operates with words. -"How does he really know where and how he should look up the word 'red' and what he is supposed to do (or how to begin) with the word 'five'? Well, I do accept that he *handles* how I have described or written it. The explanations have an end somewhere. -What really is the meaning of the word "five"? From such there was *absolutely no rhetoric*; only from it how the word "five" shall be used

2. That philosophical conception of meaning is a primitive idea of the type and way in which the language functions at home. One can really also say, be it the idea of a primitive language, when it is ours.

Allow us to think of a language, which for the description that Augustine has given it, is precisely consistent: The language should be the notification serving a builder A with an assistant B. A raises a building out of stone; cube-shaped blocks, columns, slabs and a beam are remaining. B hands him the building stone namely after the row, which is how A needs it. For the purpose of serving it within a language prevailing out of the words: "block," "column," "slab," "beam." A calls it out; -B brings the stone, which he has learned to bring from this call. Interpret this as completely primitive language.

- 8. Let us look at an expansion of the language (2). Apart from the four words "block,"
 "pillar," etc. containing it further in a row of words, which will be applied as the grocer in
 (1) used the numerals (it can be the row of the letters in the alphabet); furthermore, two
 words may read "there" and "this" (because this already approximately indicates one's
 purpose), they will be necessary in usage with a demonstrated hand movement; and
 finally an assumption about color samples.
- 16. How is it that with the color sample, which A shows B, it belongs to or is part of the *language*? Well, it is how (or like) one wants it. It does not belong, or is not part or relevant, to the worded language; but if somebody says: "Pronounce the word 'the'", then you will also even take into account this second "'the'" in addition to the sentence.

And it even plays an entirely similar role like a color sample in the language-game (8); it is namely a sample, nonetheless, about what the *Other* should say.

It is the most natural, and causes the least confusion, when we calculate the sample in relation to the tool of language. ((Comment over the reflexive pronoun "this sentence".))

Several years later Wittgenstein did comment on this reflexive pronoun by comparing speech that involves pointing to some object, such as a color, with reflexive pronouns, sentences and the liar's paradox in his *Zettel*. I suggest that *Zettel* be translated as "Notation."

691. "The Cretan Liar". Instead of saying "I am lying", he could also write down "This sentence is false". The answer afterwards would be: "Well, but which sentence do you mean?"—"Well, *this* sentence."—"I understand, but from which sentence is the speech or conversation in *it*?" et cetera. He could not explain to us what he means before he moves on to a complete sentence.—One can also say: The fundamental error lies therein, which one thinks, a term, e.g. "this sentence", could to its object, so to speak, insinuate (pointing from the distance) without it needing to be representing.

Self-Referential Statements about Lying, Sarcasm or the Liar's Paradox?

During the fourth century BCE Eubulides of Miletus inquired whether it is true or false if a person simply states that s/he is now lying. A traditional philosophical analysis generally takes into consideration that if the so-called statement (i.e., "I am now lying.") is true, then the statement entails that the expresser is uttering something false because it

is maintained that if an expression is a lie, then it is false; therefore, the "statement" appears to be false. If the claim is considered to be false, then this negates the contents of the claim that asserts that the individual is lying, so it appears to be a true statement after considering some of the logical consequences that follow from an interpretation of the sentence under the assumption that it is false. "Dialetheism" is the thesis that something can be both true and false simultaneously or that there are true contradictions, and this idea has been voiced by Dr. Graham Priest (1987 & 1998).

One problem with the liar's paradox arises from a fallacy that is commonly made, namely, making the assumption that one is telling the truth when one is not lying, which is a presumption based on the fact that whenever one is lying, the individual is absolutely not telling the truth. It is fallacious to assume that an individual is "telling the truth" whenever the individual is not lying. Therefore, if the sentence is interpreted as being false, then the individual might not be lying, and could simultaneously be asserting something that could be deceptive⁴⁹.

There are other types of deceptive reasoning that are common, which includes exaggeration, hyperbole, joking and sarcasm. However, the best way to deceive somebody is to mislead them by initially stating something that is actually true. In such situations the deceiver may always later claim, at some moment in the future, that he only stated the truth and did not realize that what he said was misleading (i.e., initially misleading the person and then lying to cover up the deceiver's intentions).

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⁴⁹ Asserting something deceptive is quite different than asserting something with the intention of deceiving. For instance, "sarcasm" just is deceptive because it generally involves an expresser expressing something that the expresser believes to be false, such as claiming that something was "exceptionally well done" when in fact it was truly "botched." Describing something in such a way that is different from any possible actual description will result in some people either believing that the describer believes what is said is true or will result in the interpreter believing that the expression is true in many cases. For instance, kids will be deceived as well as autistics and those from other cultures that are not accustomed to sarcastic speech.

I shall elaborate on the contribution of sarcastic reason to the field of logic and in relation to lying, but we shall only consider the other forms of deceptive reasoning briefly here. More sophisticated philosophical analyses ought to take the intentions of the expresser into consideration because statements are rarely asserted without the accompaniment of the expresser's intentions, which are typically the linguistic actions of an expresser who intends for his or her statements to be true.

Should one question whether the correspondence theory of truth is tacitly advocated at the expense of the coherence truth theory when the intentions and beliefs of the expresser are ignored for the sake of interpreting a sentence with a truth-value that is ascertained to be a one-to-one correspondence with reality? It must, nonetheless, be considered as a significant aspect of the liar's paradox that lying is a type of deceptive reasoning in which the liar generally intends to conceal his or her intentions, the liar wishes for the interpreter to believe what s/he said is true and/or the liar hopes that the interpreter believes that the liar believes that what the liar said was true.

The assertion of the so-called statement, which creates the "liar's paradox," proposes that the "statement" is itself a lie. The assertion that one is being deceptive is, in fact, the contrary of deception or at least it reduces the potential maximum mount of deception involved. However, the liar's paradox is more subtle than a reference to itself as a general deception because it only tacitly implies that it is deceptive through either the meaning of the word "lying" or through the assertion that the contents of the expression is "false" in, for example, the following sentence.

This sentence that you are now reading is false.

The key question regarding the liar's paradox is whether the expresser of the

paradoxical "statement" expects the interpreter to believe that the expresser believes what the expresser said is true. Does Expresser (E) intend for Interpreter (I) to believe that (E) believes that what (E) said was true? Does (E) want (I) to believe that what (E) said is true?

The answers to both of the mentioned questions are usually negative since this paradox arises within the analytical tradition as an example of a sentence that has an ambiguous truth-value. When one asserts the liar's paradox, the person typically does not expect or intend for the interpreter to believe that the expresser believes that the expresser's assertion is true, and I have neither heard any philosopher express a form of the liar's paradox while intending to convince me that the statement is true nor attempting me to believe that this is what he or she accepts as being true. When one asserts a sarcastic or ironic utterance, the individual typically does not expect or intend for the interpreter to believe in the same manners as described above in regard to the liar's paradox.

The intentions of the philosopher expressing the liar's paradox are actually the same as the intentions of most people, to some extent, when they express ordinary sarcasm in which something positive and false is expressed about a negative event. For instance, if one were to drop Prince William's family jewels while he attended the University of St. Andrews, and the ancient, priceless gems shattered on a cobble stone, he might say that "you are a very coordinated person, and I am certain that we have a position for you as the royal jeweler." The prince may later claim that "this sentence that I am saying right now is false."

In the quoted examples Prince William (i.e., the expresser) does not expect or

intend for me (i.e., the interpreter) to believe that he believes that what he just said was true. The prince also does not intend for me to believe that what he said is true. The same could very well be the case if the expresser asserts the liar's paradox, namely, the expresser could plausibly not intend in any way for the interpreter to believe that what the expresser said is what the expresser believes. Therefore, we may properly dub the expressions of the various forms of the liar's paradox as sarcastic or ironic statements.

One may counter-argue by claiming that the liar's paradox cannot be interpreted as sarcasm whenever the expresser intends for the interpreter to be *unable* to recognize that the expresser believes that the expression is untrue. So, if the expresser wants the interpreter to believe that the expresser believes the expression is true, then we cannot interpret the expression of the form of the liar's paradox as sarcasm or irony. If the expresser intended for the interpreter to believe that the expression is true, then we cannot interpret the expression as sarcasm or irony.

The latter case is plausible, and it resembles the deceptive structure of lying. However, the counter-arguments in the previous paragraph do not take into consideration the development of sarcastic reasoning skills. One who has been around children long enough should know that children learning how to express and recognize sarcasm are often better at expressing sarcasm than recognizing it, and in these cases the children utter sarcastic phrases that they have heard from their parental figures, teachers, other adults and teenage siblings; however, children under twelve are still unable to recognize that their interpreters (i.e., let us say the parents) realize that the child does not believe what she just said was true.

Analyze the truth-value of the following sentences.

(S) "This sentence, sentence {(S)}, is sarcastic."

The problem posed by (S) is that if the sentence has a true truth-value, this entails that (S) is literal and sincerely expressed, which contradicts the meaning of "sarcasm." Therefore, the meaning of the term "sarcasm" negates the latter interpretation of the sentence. Another problem here is that sarcasm is a term that denotes causing pain or anguish within the individual for which it is intended.

However, if sentence (S) has a false truth-value, this entails that the sentence is insincere and that it is not to be taken literally in which case there could be several alternative interpretations, such as an interpretation of the sentence as an exaggeration, lie or joke, for instance. It has already been argued that the sentence cannot be sarcastic though, so one of the other alternatives involving deception or joking could provide us with an appropriate interpretation. It was argued previously that in comparison to the structure of deceptive reasoning, there is quite often an intentionally false utterance that accompanies sarcasm, hyperbole or exaggeration, and lying. Thus, in order to properly analyze the sentence, "This sentence is sarcastic," we must distinguish between several different forms of expression.

(S) "This sentence, sentence {(S)}, is OBVIOUSLY sarcastic or ironic."

What about the truth-value of the latter sentence? Could we say that it is true based on the fact that it is not obvious that it is true?

The Definitional Challenge of Lying

I have already argued that philosophical definitions do not take into account neurological studies in relation to lying and truth-telling and that sarcasm is a likely phenomenon to be studied in relation to the former concepts. Mahon (2008) wrote, "There is no universally accepted definition of lying to others (Kagan 1998, 113). The OED definition of lying is as follows:

To lie = $_{df}$ to make a false statement with the intention to deceive."

At this point Mahon demonstrates how this definition of a "lie" is problematic by writing a counter-example in which individual A believes that he is telling individual B a true statement in order to deceive B into thinking that something else, which is closely related to A's true statement, is not the case. The traditionally accepted definition of lying involves the following characteristics.

First, one must believe that the statement one is lying about is indeed false.⁵⁰ This entails that one might not believe that the statement is false before he lies or after he lies. Second, the "liar" must have the intention to deceive the other person into believing either that the statement is true *or* that the liar believes that it is true. Again, this entails that one may not have the intention to deceive an interpreter before or after the expression. According to some theorists, if I lie by saying, "our company has a business meeting on Wednesday," then it must not be the case that "our company has a business meeting on Wednesday," this means that the statement must be false, and the expresser must believe that the expression is false.

There are two types of lying, which include "little white lies" and "big dark lies."

⁵⁰ It has been argued that the expression of a lie can allow vice versa so that one may disbelieve the true statement that one is "expressing as a lie."

A "little white lie" is considered to be polite in public (Talwar & Lee 2007 & 2008). For instance, if one receives a gift from somebody, and the receiver does not at all want the gift, which is a type of food the receiver does not like, then it is polite for the receiver to politely thank the gift-giver and even to say that he likes the gift (i.e., to lie). "Big dark lies," on the other hand, obviously raise moral concerns, but our purpose here is to describe the structure and complexity of functions concerning deceptive reasoning rather than to consider the ethical implications since a general knowledge about the former contributes greatly to knowledge of the latter.

Another type of deception involves expressing a true statement in a way that insinuates that the statement is false. For instance, somebody may ask me if I were involved in a crime, and let us suppose that I was. I might respond with an extremely sarcastic tone saying, "RIGHT!" The tone indicates that the intended meaning is different than the sentential meaning as like with sarcasm. However, this is quite different than sarcasm because telling the truth in a deceptive manner involves the expresser's desire to conceal what really happened.

Sarcasm is a developed skill involving sophisticated ToM mechanisms of our brains, which entails that there are likely to be certain regions of our brains that cannot handle such complex activity via plasticity, yet the categorization of the definitions of "sarcasm" has been quite ambiguous for the former reason. The aforementioned argument maintains that the liar's paradox cannot be interpreted as being "sarcastic" in two particular types of situations; however, during certain stages of developmental processes of ToM mechanisms that allow sarcasm recognition, there are intentions identical to the sorts of intentions described in the counter-argument, although we still

categorize the overall set of speech patterns and intentions as "sarcasm."

Therefore, we are still able to properly interpret the liar's paradox as sarcasm or irony even in cases where the expresser expects the interpreter to believe that the expresser believes her own expression was true. The liar's paradox may also be interpreted as sarcasm (i.e., a type of sarcasm during the early developmental phases of the ToM skills) when the expresser intends for the interpreter to believe the expression is true. The difference between sarcasm and lying involves a developmental gap in relation to the recognition ability of sarcasm. The latter two assertions made about certain forms of the liar's paradox and sarcasm depends upon the social cognitive developmental stages of the expressers and interpreters (i.e., certain developmental stages allow adolescents to understand certain forms of sarcasm while not understanding others).

Lying and Exaggerating versus Sarcasm, Joking and Humor

Lying and exaggeration are quite different from sarcasm and joking in virtue of their situational variables and pretending. Imagine, for instance, a motion picture that involves somebody lying and exaggerating. The actor tells a woman that he is a millionaire industrialist who is single with no children while he flirts with her and attempts to lead her into his bedroom, and he is by no means a millionaire or an industrialist. Moreover he is married with children, but he is quite wealthy in relation to the surrounding community's standard of living, and he possesses close to a million dollars, so he is only slightly exaggerating about his wealth.

Only under the storylines of the film can one maintain that he is a liar and exaggerator. The context involves pretending, which is generally assumed when

audience members discuss the plot of a movie. Thus, we can say that the actor's character lies, but the actor is neither lying nor exaggerating for he is aware that he is neither deceiving nor intending to deceive his audience since there is a "suspension of disbelief," which means that the audience pretends to some extent that the events are real. ⁵¹

However, imagine further that the actor listens to the actress talk about her dysfunctional sister who has emotional outbursts and behavioral problems, such as obsessive compulsive disorder, and he describes the fictional sister as being elegant, fascinating and sexy, holding back any subtle cues that could be interpreted as sarcastic, although her description does not imply a characterization that is even close to his description of her. Moreover, he says this to her with a smile before he clasps his lips together with his index finger to hold back a bit of laughter.

The actress is wearing a low cut blouse and catches the man looking down at her cleavage, and she says with a smile, "I just caught you looking at my breasts. Stop *looking* at my breasts!" The man replies with a sarcastic tone, "right," and with a more serious tone says, "but I'm sure you wore this blouse so that everyone would notice your *shoes*." The actor continues to wittily describe her family in jest with tinges of sarcasm, and he describes his own family, nevertheless, using an analogy of a pack of stray, hungry dogs. He later revamps and claims that his family is very loving, thoughtful and that they have helped him GREATLY with his career. The actress at this point acts smitten, and they retire to the bedroom at the end of the scene.

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⁵¹ These latter facts also depend upon the social cognitive developmental stage as like sarcasm because children often believe that the character in a movie behaves in the same manners when he or she is not being filmed, which can be witnessed after observing children watch movies with organized crime and gangsters since the children are often afraid or express fear toward the actors pretending to be gangsters.

Interestingly, we do not say that the man is "acting and pretending to be sarcastic" and that the man is "acting to be a joker" or "acting out jokes." When we describe the actor we maintain that the actor is actually performing and doing something sarcastic. We simply say that "he is sarcastic" and that "the actor is joking." However, we do not maintain that "the actor lies" or that "the actor exaggerates." Notice again, that even if we qualify the statements and claim that "the actor is sarcastic in this movie" and "the actor is joking in this movie," the claim would be false if we were to assert that "the actor tells lies in the movie" or that "the actor exaggerates in the movie." The reason why the latter two cases about lying and exaggeration are false and the previous two cases concerning sarcasm and joking are true involves our notion of *pretending*.

The actor does not tell a lie since he does not intend to deceive anybody, and the other actors know this, which is obvious. He rather pretends to be a man who is telling lies to a woman so that he can take her with him to bed. Similarly, the actor does not use deception, but he pretends to use it. Thus, deceptive reasoning can be demonstrated to have a specific context by which it is instantiated, and the *contextual theory of truth* as well as the *correspondence* and *coherence theories* are therefore applicable.

He does not exaggerate, but rather he pretends to be a man who is exaggerating about his wealth since we do not even take the income of the actor into consideration. Nevertheless, we would not say that the actor is *just* pretending to be a man who is being sarcastic because we claim simply that "he is sarcastic." Moreover, we would not ever claim that the actor is *just* pretending to be a man who is joking because we would say that the actor is *joking*.

Lying and exaggeration only arise during certain situations. They involve the

very real application of deception in which the deception is generally intended, although we may modify this description in relation to compulsive liars. Moreover, an actor cannot lie if it is understood by his audience that the actor is acting (i.e., pretending). Exaggeration functions similarly, but it appears to be less obvious than examples of telling lies for some unapparent reason that involves or can be graphed upon the Belief-Reality-Desire Triad in which beliefs range from strong to weak to undecided and to weak and strong disbeliefs, and coinciding *desirability* functions similarly.

Why is it that one can pretend to express a lie, but one is not actually lying when one pretends, and contrarily when one pretends to express sarcasm, one is actually being sarcastic? The concepts of "desire" and "belief" are related to this fact about lying to the extent that pretending to desire some object O and pretending to believe P neither means that one desires O nor believes that P is the case. Why then is sarcasm or irony so different with the context of pretending? An actress is within the same situation as with O and P in relation to pretending, believing and desiring as she is when she pretends to lie.

Possibly, we are unable to tell the difference between pretending to be sarcastic or ironic and being sarcastic or ironic, which gives social cognitive neuroscientists a challenge in relation to testing the expressers of such statements since the research over the expresser of sarcasm and irony is quite thin.

Sarcasm, irony and joking arise even in situations in which an actor is acting or where somebody is just pretending. Therefore, one cannot pretend to lie or pretend to exaggerate and simultaneously tell a lie and exaggerate, whereas one can pretend to be sarcastic or ironic and pretend to joke, but one also may indeed be simultaneously

sarcastic or ironic and joking. Sarcasm, irony and joking involve deception in quite a different sense. Sarcasm, irony and joking often involve asserting something false, which does deceive the individual, but in which case the sarcastic expresser did not intend to deceive the other person.

Conclusive Remarks

This chapter has provided an historical context by which the philosophy of deception emerged as an important field during antiquity. It has been argued that modern conceptions of deception are multifaceted to the extent that they take dense theoretical perspectives of mental states and mentalizing skills into consideration within a developmental cognitive and behavioral and neurological framework.

The Cubic Formulation of the Belief-Reality-Desire Triad illustrates the need for social cognitive experimentation to measure the mental states called *desires* in their interconnected relations with *beliefs*, in which case *beliefs* have been analyzed apparently quite thoroughly, but possibly need reevaluation that takes *desirability* into consideration. Moreover, a concept of an interconnection between the Cubic Formulation of the Belief-Reality-Desire triad graph and the *fundamental beliefs of Expresser E and Interpreter I during the expression of non-literal wordings graph* has been offered in order to demonstrate the complexity of logical options by which experimenters have only chosen a small portion of the potential experimental sets of conditions.

These conceptual findings within the latter frameworks have been explicated within the philosophical problem we are challenged with in regard to describing and utilizing truth-values and the methods of logic. Several different types of deceptive

expressions have been offered, and the concept of lying has been analyzed and criticized in virtue of modern definitions, which do not take neurological, paradoxical and comparative analyses with sarcasm into consideration in relation to lying, for instance.

Furthermore, *sarcasm* primarily is understood here to be the instance of ToM in which the beliefs and desires of the expresser or interpreter are recognized via higher level meta-cognition skills; this has crucial implications for psychiatrists and other medical practitioners who encounter forms of dementia, autism and other disorders of patients who may still be able to function independently via rehabilitation exercises with expressions of sarcasm and a gradual introduction of patients into ordinary social settings. ⁵²

Levels of consciousness and higher order thinking have been reevaluated as well from the perspective of the belief-reality-desire cubic triad and the importance of hallucinations and illusions in regard to potentially inducing them for the purpose of describing the mental contents of other species from a behavioral perspective. Moreover, the grades of consciousness have been explained in terms of ToM skills. Finally, irony, the origins of sarcasm, criticism of its definition and paradoxes related to Ludwig Wittgenstein's language games have been offered as part of an analysis of sarcastic reasoning.

The next chapter shall consider the social affects of sarcasm within the context of the society rather than the models that explain individual behaviors and mental states.

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i.e., there is a problem within psychoanalytic professions in which some party needs to be held responsible and accountable for the social experiences that a patient with a social cognitive disorder undergoes during and after treatment; the treatment methods are held accountable for any negative affects of a category of patients who have these problems (i.e., negative affects), and the accountability is to such an extent that is compared as being inferior or superior on the basis of the statistical analysis of other treatment methods. More knowledge should be gained within the field of psychoanalysis about the usage, interpretation, frequency and expression of sarcasm in relation to one another about the beliefs, desires and actions of both the analysand or analyzed patient and the psychoanalyst.

Perhaps an understanding of the patterns of multiple expressers and interpreters will allow a greater understanding of the focus of only one interpreter and one expresser and vice versa.

Ш

The Cynical Structure of Political and Cultural Ideology, Legality, Acceptability and the Role of Sarcasm

The changing cultural, social and political actions within any society are structured in four all-encompassing categories, described in this essay, in relation to the structure of a society's legal system and the many times incongruent social acceptability of certain actions.

The transition from social acceptance to the unacceptability of particular behaviors and from legal to illegal acts is interrelated with an ongoing socio-economic class struggle amongst the hegemonic powers and their ideologies and the remainder of society whom often serve to support the hegemonic powers' ideologies for their own interests (i.e., family, personal, business and community interests) or out of ignorance and successful deception.

The logical structure of a single system of thought or ideology is graphed. Ideology critique is described in this chapter in accordance with Peter Sloterdijk's *Critique of Cynical Reason* (1987).

Furthermore, Sloterdijk writes within his polemical and historical critique of culture, especially the German culture until the early 1980s, that "the great parades of cynical impudence have become a rarity; ill-humor has taken its place, and there is no energy left for sarcasm" (p. 7). Thus, as a continuation of Sloterdijk's magnum opus I have analyzed the role of sarcasm accordingly.

III.i. Differences between Political, Social and Cultural Ideologies

I will briefly describe the differences amongst political, social and cultural ideologies and actions in relation to legality, social acceptance and non-acceptance in the following manner: (1) the "Legal and Socially Acceptable," (LA), means that if all actions within the confines of a society, culture, and/or community are both legal and socially acceptable, then there is not an instance in which the actions are illegal; (2) the "Illegal and Socially Acceptable," (iA), entails that if all the acts are illegal in this category, then there is at least some instance of one act being socially unacceptable at some temporal and geographic location L; (3) the "Legal and Socially Unacceptable," (LU), means that if all acts are legal, then there is some instance where some act is socially acceptable within some temporal and geographic region R; and (4) the "Illegal and Socially Unacceptable," (iU), entails that if every act is illegal and socially unacceptable, then there is no instance in which one of the acts is legal from the perspective of the ideology at hand.

Societal, Cultural and Political Action and Ideological Graph (SCPAI)

	(A) Socially Acceptable	(U) Socially Unacceptable
(L) Legal	$((\forall x) (Lx \& Ax)) \rightarrow \sim ((\exists x) (ix))$	$((\forall x) (Lx \& Ux)) \rightarrow ((\exists x) (Ax))$
(I) Illegal	$((\forall x) (ix \& Ax)) \rightarrow ((\exists x) (Ux))$	$((\forall x) (ix \& Ux)) \rightarrow \\ \sim ((\exists x) (Lx))$

- (1) Legal and Socially Acceptable (LA) = (L & A) \leftrightarrow (($\forall x$) (Lx & Ax)) $\rightarrow \sim$ (($\exists x$) (ix))
- (2) Illegal but Socially Acceptable (iA) = (i & A) \leftrightarrow (($\forall x$) (ix & Ax)) \rightarrow (($\exists x$) (Ux))
- (3) Legal but Socially Unacceptable (LU) = (L & U) \leftrightarrow (($\forall x$) (Lx & Ux)) \rightarrow (($\exists x$) (Ax))
- (4) Illegal and Socially Unacceptable (iU) = (i & U) \leftrightarrow ((\forall x) (ix & Ux)) \rightarrow \sim ((\exists x) (Lx))

This graph is defined as representing all these categories, namely the structure of the cultural, societal, communal and political ideology. A graph representing the actions that are categorized and/or perceived (i.e., how the descriptions of events are taken to be true, e.g., lawyers and judges tend to have the most accurate ideologies regarding the legal status of behaviors within their regions) within each defined category in accordance with two ideologies shall require two graphs. Thus, separate graphs represent separate ideologies and actions of particular groups with overlap when the ideas, beliefs and/or actions are placed into the appropriate categories.

The difficulty in interpreting another group's ideology involves deception via further ideology. It is important to note that descriptions of actions change in relation to their categorization and perception over time in accordance with members, especially from (LA) to either (LU) or (iA), from (LU) to either (LA) or (iU), from (iA) to either (LA) or (iU), and from (iU) to either (iA) or (LU). Moreover, social acceptability is defined in relation to civil unrest (i.e., the greater the extent of social unacceptability—the greater the amount of civil unrest as a result of those actions involved).

It is important to recognize that if one says that an act is legal or illegal, that does not entail that the act is what one says it is, so ideologically this is important, especially within societies within which major businesses, corporations, banks etc. take advantage of their privacy in relation to their transactions and employee benefits at the expense of

detriments to other employees (e.g., CEO's multimillion dollar wages as opposed to the low wages of employees and their related unemployment since more employment would be instantiated if CEO wages were less).

Moreover, it is worthy to denote that an ideology's perception about what acts are socially acceptable or unacceptable does not entail that an advocate of that ideology would consider and label a neutral *veridical description of those acts* as being what one describes it as in relation to being positive or negative (e.g., morally acceptable). That is, acts are labeled thus and so irregardless of whether the actions have been properly described in the first place. Hence, an individual advocating a different ideology may appear delusional to the members of a different ideology.

So, there is a true description of some action, although the act itself is erroneously described by several ideologies. For example, ideology 1 labels the act as (LA) and ideology 2 describes the act as (LU). A true description of the act would, if the description were perceived as describing reality, result in rational individuals of both ideology 1 and 2 believing that the action is (iU) and considering it as such.

Imagined and Believed Borders: Nationhood

The importance of such understandings underlies our entire money or financial system, the basis of any political economy to such a great extent that *no nation would* exist if it were not the case that the continued existence of some nation were perceived by certain dominant ideologies. For example, consider the creation of the nation of Kosovo in 2008, which was undesirable for Russia, Serbia and various ideologies. However, the ideological influence of members within the European Union and United States allowed

for a new former Yugoslavian country to establish more borderline segments, and thus the EU and US members mentioned represent dominating ideologies.

The reason for the latter facts, in part, involves the simple fact that *national* borders are imaginary line segments that would be crossed fluidly, immediately and without hesitation, if they were not later believed and desired to be existent by powerful forces of control, hegemonies and the like who provide or support the fencing, security and other technologies of control of the migration patterns of larger mammals. There are, of course, economic incentives for both the EU and US to advocate the creation of Kosovo as a potential NATO nation, place for US and EU soldiers within its borderlines, and to conceive of it as a possible EU candidate country by which trading regulations become homogenized and facilitated.

We may thus ascertain that borders are first imagined by certain dominant ideologies (i.e., they are imaginary line segments), maps are specified in relation to particular ideological interests, maps are popularized or given to others as new conceptions of the world, geography and political economies, and then a process by which beliefs become strengthened in relation to the borders allows and demands for individuals to treat specified line segments as secured areas.

As generalizations, estimations and geographic representations or interpretations of geography maps and globes also represent national or geographically-situated ideologies. For instance, the Lebanese School in which I taught in 2008 owns several maps in Arabic and several maps in Bulgarian in which the former maps do not contain certain countries, such as Israel, and the latter maps do not contain particular nations, like Palestine, which is in the same placement as Israel on the former maps.

The ideology concerning the Arabic map involved the argument that Israel does not exist as a nation and is an "evil place," according to my thirteen and fourteen-year-old Arabic-Bulgarian students, whereas my fifteen and sixteen-year-old students made no such claims, and three of them were able to give brief historical accounts of Israel, dating back to before 1950. Even if the first account expressed by my younger students does not accurately portray their beliefs concerning the matter, there is indeed a misunderstanding concerning "nationhood" that is inherent within the miscarried dialogues happening between different ideologies, and the dominant ideologies are likely to make the biggest mistakes resulting in international conflict which might have been intelligently avoided.

Currency as Current-Belief

Currency,⁵³ if it is not valuable after it has been stripped of all its symbols, is representative, more or less, of current-belief about commodities such that the current belief takes it that the currency is valuable in relation to other commodities, and it would not be valuable without this belief by certain dominant ideologies.

The modern banking system has converted currencies into *electronic-currencies*.

Banks and credit unions underpin our beliefs in the money system, and without regulations by governments, protecting the best interests of people, these *entities* often

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⁵³ Money is a commodity as Marx understood it; it comes in the form of currencies that are unlike other commodities since other commodities cannot be greatly damaged and accepted with equal value, upon great faith and without hesitation by the buyers (i.e., I can mark on my dollar and tear it partially, and it is still considered to be "legal tender" and must be exchanged in certain places with equal value, unlike a book). In Bosnia the English Pound is worth a great deal, but in Sarajevo I could not purchase anything on the streets with my Scottish Pounds, which are worth the same amount throughout the UK in accordance with the current-belief. Moreover, currencies are geographically significant (i.e., their current-beliefs as relations to commodities is only geographically understood). For example, I cannot sell my Serbian Dinars in the US in exchange for anything in my area. However, over time this changes, and curries gain value according to the historical, cultural and ideological interests of collectors, and, partially, the value of currency is determined by how rare it is in relation to the symbols. For instance, ancient Egyptian coins made of stone could be far more valuable than Roman coins made of gold.

take tremendous risks in order to make short-term gains that positively affect those in power while those about to be in power or who will never be in power are affected negatively. Incoincidentally, risks are taken for short-term gains that coincide with the short-term interests of political ideologies whom often have members in power during these relaxed regulatory periods coinciding, again, with legislative and executive political terms

As a result of the aforementioned we may ascertain that an understanding of ideology is *crucial* in order to provide a philosophical and socio-political framework through which facts about our so-called national, international, current-belief, geographical and historical situatedness within our globalizing world can be properly understood. Interestingly, some people support these ideologies that actually affect them negatively, which should greatly concern us all since we are vulnerable in this respect.

Some individuals are compensated financially for their services, which involves espousing these ideologies publicly, and others are somehow convinced as a result of *deceptive ideological jargon* to advocate ideological stances that are, observantly, against their own objective interests. Sarcasm in the United States has functioned as a means by which ideological interests, concerning our politics, are made readily observable. These latter observations are the focus of this investigation.

III.ii. The Structural Analysis of a Single Ideology⁵⁴

The benefits of this Societal, Cultural, Communal, or International Action and Ideological Graph take place when the key differences between any two different cultures, societies or communities are made *explicit* in relation to the important and interesting differences in group's views about what is legal, illegal, socially acceptable and unacceptable in order for the major differences in ideology to be readily observed. This may function significantly as a tool that allows individuals to adapt within another society, culture and community more easily or without discovering the challenges of adaptation the "hard way," i.e., via personal experiences with one's own "socially unacceptable" and/or illegal behaviors. The challenging task is for sociologists to fill in the categories with the most important and interesting facts.

(LA) involves most of the behaviors within any society or culture. "(LA)" means that there is no possibility within the ideology of these individuals to allow for there to be seriously considered examples of (LA) actions, which are illegal within the confines of a particular group, such as a society or tribe. For instance, the fact that marijuana being smoked is both legal and acceptable within the "Dutch sub-cultures and society" does not serve as a counter-example of the aforementioned definition of (LA) given the fact that

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⁵⁴ "Ideology" is defined as 'a system of ideals and ideas, especially about how to act and why, and the way of thinking that describes a particular, social class, group, or individual.' The problem with this definition of "ideology" is that the members of any group can be demonstrated to think differently from one another on various topics, for instance. Thus, "ideology" is a descriptive term that captures the similarities amongst members. Moreover, "ideology" is generally referred to in relation to a group's views about political and/or economic theory. For Marx, the term "ideology" means "false consciousness," which is the variety of abstract beliefs that do not take material or historical existence into account via the distortion and concealment of social contradictions (Kearney, 2003).

⁵⁵ There are various types of power. For instance, the military takes economic, informative, military and political power or control into deep consideration, and political power can change their entire objective, so presidential term limitations as well as senatorial recesses are understood within a context of powers.

marijuana is *illegal* in most regions of the world because each ideological chart graphs the ideology of a common culture and thus the portion of the Dutch culture which finds marijuana (LA) contains no instance in which it is illegal within the particular confines of the group, namely, the geographic, temporal, or possibly, racist or sexist laws, age limitations or other demographical factors.

Another example concerns the ideology within the Texan culture concerning the implementation of the death penalty for those convicted of premeditated murder. Many Texans support capital punishment, but the fact that there are many Texans who do not support this morally questionable practice and who may be adamantly against it does not negate the fact that this action is (LA) for a dominant ideology within the culture. The graph is a framework that accounts for the social acceptance of a group within the confines of the legal system to which they are subjected.

For contrary reasons the same applies for (iU) as it does for (LA), and thus, the formulation is able to be modeled with the same structure and opposite conclusions, namely, therefore, no instance of illegality for (LA); and therefore, no instance of legality for (iU), such as rape, arson and murder.

Application of Ideological Categorizations to Immigration

In respect to immigration there is no conceptual problem in relation to a society understanding that (LA) immigration is perfectly fine for the society, whereas (iU) immigration is quite easy to handle since the individuals are imprisoned and deported. However, (LU) immigration involves those immigrants who reside within a society legally, but who are nonetheless detrimental to society, and their status should be

changed from legal to illegal (i.e., these are arsonists, rapists and stalkers who have legal documents allowing them to live within the society).

Perhaps a larger category than the last one is (iA) immigration in which immigrants benefit the society, but they are illegally residing within the society, which results in deportation and imprisonment as well, although they are not criminals. Furthermore, there are some unfortunate immigrants who are placed in compromising situations in which they may be objectified, taken advantage of sexually and exploited as laborers. For instance, in Mexico within the first decade of the 21st century a deplorable number of illegal immigrants failed to report crimes committed in Mexico out of the fear of being deported since their beliefs about the laws and the laws themselves maintain that any one who reports a crime must provide legitimate identification. (iA) has existed for ages, but it is more prolific within the large structured societies in which bureaucracy treats individuals like numbers and connections at the top of the hierarchy of the society or within certain sectors are necessary in order to override such situations and allow legal status to be maintained

These categorizations of illegal immigrants should be understood by each legal system in respect to judgments about the categorizations and immigrants and the enforcements of any decisions, which negatively affect the communities from which they are expelled in the cases of (iA), positively in relation to the deportation of (iU), but there is no focus upon those who negatively affect communities but nevertheless are legally residing in them (i.e., (LU)). Practically speaking, there is need for a cost-benefit analysis in relation to a focus of more effort upon the latter category (LU) and less time, energy and money on those immigrants who are considered to be (LA) according to the

community in which they reside. This would disallow such tragic incidences from happening so often during which immigrants are exploited because they want to reside in the community without legal status and those with legal status

Opposition of Legal Interests amongst the Ideology and Hegemony

Those *actions* within the (iA) category are almost always unacceptable for the hegemonic powers and therefore (because of their control and ability to rein influence via their media outlets dispersing their ideologies) these actions are illegal because it benefits the individuals in power, such as runaway slave laws. For if *they* were acceptable for the hegemonic powers, then they would be immediately labeled "(LA)." It is easily observable how the critique of ideology can lead one toward a cynical rationality because the fact that groups are motivated by their own interests rather than unselfish ones can be divided into separate facts about individuals.

For instance, there is no individual who is a member of all of the same groups as another person, so naturally a rational type of cynicism arises for the individual, but not for the group typically; moreover, the individual acts for the purpose of gaining advantages on behalf of some group until the individual observes that his or her interests are being affected in one of the other groups to which s/he belongs, which may be economic, political, entertainment, military et cetera.⁵⁶

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⁵⁶ A problem occurs when the opinions of individuals are asserted within the media, especially those that claim to be serious news networks, without the accompaniment of information about the individual's employment and other relevant information. This is a common practice in the US now during which "opinionated news segments" label certain individuals as "political analysts." If there were enough information concerning the opinionated political analysts, surely their opinions could be easily demonstrated to either fit within their own socio-economic class or within a class of a higher level (e.g., the beliefs and desires of Australian billionaire Rupert Murdoch to whom Fox News and The Wall Street Journal in the US belong), which in the latter case would reflect their ambitions to be promoted by voicing similar opinions as their occupational superiors or promoting the recognition of some group in which they

On the contrary (LU) involves something being socially acceptable for the hegemonic powers, and unacceptable for the undeveloped and poorly-supported ideology of the masses. The dominating powers allow these acts to remain legal at the potential expense of civil unrest (i.e., civil unrest will occur when the masses realize that their interests are being compromised for the purpose of allowing the hegemonic powers to support their own opposing interests and ideologies).

Interestingly, the masses are placed in an unfortunate position in which the most prolific ideology is actually the dominating power's ideology because powerful individuals control the outlets by which their ideology can be publicized, so members of the other interest groups (i.e., not the interest groups that are directly affected and who are explicitly opposing the hegemonic powers) are convinced well enough to allow their groups' interests to be jeopardized for the interests of the hegemonic powers.

The latter assertions are empirical ones, which can be tested in the following manner: certain laws in question can be voted on by all citizens in order to determine who has been affected by the hegemonic power's ideology. A survey can function as a tool in order to find out in which interest group people reside. Misconceptions about legal codes can be measured. Moreover, the legality or illegality of an action that places a group of people at a disadvantage as a result of the legal status can be readily determined as well as the fact about whether people recognize that they are at greater risk as a result of the legal codes.

"Sarcasm" as a form of criticism allow those members of less fortunate groups to express the very ideological jargon of the hegemonic powers in the form of the hegemony's representatives' statements in order for people to recognize that the sarcastic

expresser disbelieves what he or she is saying. That is, representatives of the hegemony propose certain desirable propositions somehow advocating statements that coincide with the beliefs of the hegemony whether or not the propositions are representative of the beliefs and desires of the hegemony's representatives. An overly sincere and too enthusiastic affirmation of these propositions uttered by a sarcastic individual (i.e., who would obviously be at a disadvantage or who would be espousing something quite detrimental for another group and which does not affect the sarcastic expresser positively or negatively) reveals the nature of the *logical incentives of those who maintain social control financially, employ many, possess political power, military* ⁵⁷ power or control *information output* (e.g., newspapers, radio and television networks).

It is "biting sarcasm" when the representative of the hegemony does not recognize it as being sarcasm or does not follow his statements with such a recognition, and this representative and interpreter of the sarcasm is affected negatively by being scorned and ridiculed because the ideology and ideological group to which he belongs is weakened in relation to the non-hegemonic groups within society.

Moreover, the latter assertions about sarcasm or irony are also empirical and can be tested via the survey methodology as well. The two different expressions of the same sort of statement that a representative member of the hegemony asserts (i.e., both a sincere and a sarcastic expression performed by the same or different people) and that a

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⁵⁷ Interestingly, the military actually functions as a part of a society amongst which certain ideological trends can be observed to occur before they happen within the overall less organized and disciplined civilian sectors of society. The function of racial, religious and political ideologies within the military can be ordered or commanded to function within a realm of tolerance that is required. For instance, the highest position in the US army, a four star general, was achieved by an African American about fifty years before the highest governmental position, the presidency, was achieved by a Kenyan American. Blacks in the US military were actually earning positions of great power in the military during the 1950s and early 1960s while they were denied entrance through the doors of Anglo American businesses and neighborhoods until President Lyndon Johnson from Texas State University passed the 1964 and 1968 Civil Rights Acts.

sarcastic expresser performs can be judged by participants within a psychological study with options, such as: (1) Do either one of the expressers of the statement (e.g., the installation of a graduated tax upon the gift and inheritance tax is like giving the government incentive to kill affluent people for their money) believe or disbelieve what they have said?; and (2) Is the second speaker sarcastic? Do you think that he might desire a graduated tax to be implemented upon the "gift and inheritance tax?"

Logical Incentives in Relation to Forms of Power and Control: Military, Political, Informative (Media) and Financial

The logical incentives often involve the financial gain of the military, political, informative and capitalistic industries at the risk of civil unrest. For instance, lowering taxes for the wealthy is argued by the ideological group members, representing the affluent, to involve the creation of more employment since they can employ more individuals whenever they have businesses and are taxed less. Moreover, these representatives criticize taxes in general, which each individual from a cynical standpoint does not desire to pay (i.e., the plead "please tax everybody except for me!" becomes "do not tax this socio-economic class so much" {to which I belong} and must become so in order to gain support from those with equivalent interests), for the purpose of increasing their own money supply rather than supporting social programs that benefit all of the other classes.

Although great public support can be attained from the persuasive espousal of these ideas, and examples can be given that may be said to provide "confirming evidence," their overall affect within society is detrimental for all social program workers

who lose employment or have lowered wages, and the lower socio-economic classes who benefit from these programs are placed at a disadvantage.

Perhaps the most strikingly negative financial gain and coupled logical incentive in US society today is that wrought by the media. Since the media is owned by private investors and corporations (e.g., The American NBC is owned 80% by GE, the world's largest corporation, and 20% by French corporation Vivendi roughly, which is in cooperation with German ZDF (i.e., two major news and entertainment networks)), the interests of short-term profits and high ratings has become a dangerous combination on many grounds.

To what existent should the media be held responsible for the promotion of conflict, especially international conflict? The history of the media in the US may be viewed from the standpoint of the media being directly responsible for unjustifiable headlines that promote, incite or relate to the occurrence of war, such as the Spanish-American War in 1898 before which W. R. Hearst's newspaper, The New York Journal. and the San Francisco Examiner both reported that the Spanish Minister greatly insulted the US President and one New York Journal's headline read "MAINE BLOWN UP BY TORPEDO," and yet there was no evidence to suggest torpedo damage as opposed to an explosion caused by something on the ship, but public opinion was swayed such that it became a popular attitude to advocate war with Spain (e.g., "Remember the Maine!).

A viewpoint that maintains that the media is only partially responsible⁵⁸ is one that might partially blame the US media for the invasion of Iraq in 2003 by the US

⁵⁸ For example, consider the reporting of, primarily, negative information about a nation or group of people rather than any cultural insights or reports that concern the group's women and children in a positive light. The US media coverage of Iraq from 2001 until 2003 consisted of the former type of information, and there is a need within the global information system to question such reprehensible practices that may incite hatred and violence. The artifacts and history of the people and objects in that geographical region were not considered by the media before the war, so there was an improper handling of the aforementioned.

military, using certain ideological phrases that remind citizens and soldiers of positive results of war, like freeing slaves, even if the motives for war and results of war bring no such social change (e.g., the Iraq war was called "Operation Iraqi Freedom" by news agencies). The tragic and logical consequence of the private ownership, short-term interests, profit-seeking nature and interests in higher ratings in relation to the news network competitors is that since war is so interesting, especially when it is present it increases the number of people attending to the television stations, radios and brings about more purchases of newspapers and magazines during the early onset of war.

At some point there is a stage in which the costs of war become realized, the media's portrayal of war becomes less interesting as a result of desensitization, and pure boredom results in regard to the knowledge of deaths and destruction etc.; public or civil unrest takes the place of war as the media's object of interest⁵⁹ for its loyal viewers, and the moral imperative to end war appropriately becomes the ideological objective of the masses who wish their tax dollars had not been spent so much on war in the first place.

It seems that there was a moral imperative to start the war and then, paradoxically, a moral imperative to end the war with a certain attitude about this war's overall nature, and this attitude amounts to the insistence that the war should not have been allowed to begin.

The media transcended negative critique within the US and continues to transcend criticism because their power and control is such that publicizing criticism cannot take place without the media since they are the outlets by which this sort of information would

⁵⁹ The objects of interest for the media can involve investments in contractors within the country of interest who actually provide misinformation since they are often reporters who do not speak the language of that nation in which they are reporting. Their reports may result in the formation of public policy which strengthens the media agents' beliefs that they are producing good journalism (i.e., a negative feedback loop).

be brought to public attention. Every terrible fact about President Saddam Hussein, his family members and the regime which were not coupled with any positive reporting about dances, music, women, children, cultural arts, the origin of civilization incorporated into a dense history of their architecture and peoples—all demonstrates a manipulative and well-ordered form of ideological expression wrought by all major news industries in the US

These US ideological expressions about another culture's ideologies and actions were supported by mostly Western affiliates and were adamantly opposed by Arabic and Muslim ideologies, which were misunderstood by the West as amounting to the same ideology. For instance, the facts that Afghanistan is predominately Islamic, the US was supported by many other countries in the 2001 invasion of Afghanistan, and Iraq is a Muslim country as well seems to have overshadowed the fact that the invasion of an Arab country would involve a set of very different ideological understandings. The mistake resulted from a misunderstanding about a religious ideology and how it could be extended within a realm of significance to different peoples from other nations with the same "roots" and similar ideological ideas in respect to the religion but nevertheless different ideologies because of a very different language, geographic location, culture, customs, laws et cetera.

III.iii. Competing Ideologies and their Overlapping Categorizations

The following sorts of cases do not overlap in terms of their categorizations by a group's ideology: (1) *legal and socially acceptable behaviors*, such as buying a bicycle

with the money a citizen has earned from working at her father's restaurant within the confines of a capitalistic political and economic system; (2) legal and socially unacceptable behaviors, like drinking alcohol, smoking cigarettes and blowing the smoke toward the face of a pedestrian while laughing loudly and farting. These actions include the eradication of the inheritance tax, which is enforced by the hegemonic powers, for instance, and the ideology, sold with the rhetoric of the hegemonic powers (i.e., they call it the "Death Tax"), is bought by the masses, but not wholeheartedly, just to the extent that is sufficient to perpetuate the wealth of the hegemonic powers by allowing them to pass a vast amount of their belongings to their own interest groups after death; (3) illegal and socially unacceptable actions, such as arson, rape, murder burglary, robbery, driving dangerously on public roads or spitting on another person; and (4) illegal and socially acceptable behaviors, for instance, the actions of Martin Luther King Jr. may be viewed in this light. This latter category generally involves a political economy's unjust laws and appropriate responses to these laws, such as the Jim Crow laws and non-violent civil disobedience that followed the next several decades after slavery was eradicated in the mid-19th century in the US.

The changes that took place under the presidency of Lyndon Baines Johnson with the 1964 and 1968 Civil Rights Acts, which allowed blacks to legally enter all public areas in the US without allowing other citizens to legally prevent their entrances is a good example of how civil disobedience can positively affect the legal system. Boycotts and sit-ins are two good examples that involve these acts. For instance, in the US in 1963 blacks did illegally gather a large group and have the people sit inside a café that legally disallowed blacks from entering (i.e., (iA)).

(iA) is a large category containing a wide variety of actions, and the latter example involves a situation in which the hegemonic powers are white, and the loss of a human right to enter a space (i.e., the blacks could not enter various "public" spaces) simultaneously created a right for the hegemonic powers that otherwise would not exist. Lastly, the changes in the categorization of ideologies for a society or culture take place in the following order: from the hegemony's (iA) to either (LA) or (iU), and from the hegemony's (LU) to either (iU) or (LA) in progressive political societies, although successful cultures may revert periodically back to hegemonic categorizations within this on-going power struggle between classes and differing group ideologies.

III.iv. Ideology Critique

Compare the mentioned views of actions and ideologies with those expressed by Peter Sloterdijk in his piece about critiquing ideology (1987 p. 15-16):

Ideology critique means the polemical continuation of the miscarried dialogue through other means. It declares war on consciousness, even when it pretends to be so serious and "nonpolemical." The rules for peace are in substance rescinded. At this point it becomes clear that there is no intersubjectivity that could not equally well be interobjectivity. In hitting and being hit, both parties become subjective objects for each other. Strictly speaking, ideology critique wants not merely to "hit," but to operate with precision, in the surgical and military sense: to outflank and expose opponents, to reveal the opponents' intentions. Exposing implies laying out the mechanism of false and unfree consciousness. In principle, enlightenment knows only two grounds for falsity: error and ill will . . . Only a lie bears responsibility for itself, whereas an error because it is mechanical, remains in relative "innocence." Error, however, quickly splits into two different phenomena: the simple error (which is based on logical or perceptual delusion and can be

corrected relatively easy) and the persistent, systematic error (which clings to its own conditions of existence and is called ideology). Thus arise the classic series of forms of false consciousness: *lie, error, ideology*. Every struggle leads necessarily to a reciprocal reification of subjects. Because enlightenment cannot give up its claim of imposing better insights against a self-obstructing consciousness, it must basically "operate" *behind* the opponent's consciousness. Thus, ideology critique acquires a cruel aspect that, if it ever really admits to being cruel, claims to be nothing more than a reaction to the cruelties of "ideology.

In relation to the SCPAI structural graph we observe that various interest groups are opposed to one another's views (i.e., the particular graphs for each ideology demonstrate different categorizations of issues that are acceptable and unacceptable for each interest group, and they include some matters that are mundane for the next interest group and exclude others that are the most significant for other groups). Sloterdijk describes the critique of ideology as a type of continuation of argumentative speeches and writings of a dialogue between at least two ideologies that do not succeed in reaching the goal of having any dialogues on common grounds, so the "miscarried dialogue" is perpetuated via other means, such as advertisements, different types of educational methods, different bills in congress and so forth.

Sloterdijk is referring to interest groups that have opposing interests, which is always the case when it comes to a critique of ideology. For instance, my critique of advertising products and services involves a negative view of ads simply because they tend to raise the prices of the very products and services that they are endorsing (e.g., a TV commercial for McDonald's but not the advertising of gas prices for a gas station). Nobody can escape the inculcation of ideology imposed upon each individual by the very groups with which one associates. Thus, the critique of ideology, practice of philosophy and even the sociological and historical analysis of those who make up these interest

groups, working in philosophy departments around the world, impose certain ideologies.

Pierre Bourdieu in his *Pascalian Meditations* (2000) describes the group of philosophers as being part of a small group, in relation to the rest of the world, and we are in a situation of skolé, (i.e., with an amazing amount of free time in relation to the rest of the world who are constantly burdened by the struggles to support their own basic physiological needs and to provide security for themselves, family and friends). The sociologist, Bourdieu, argues that philosophers must recognize the social conditions that allow them to maintain their statuses as philosophy producers, if they want to uncover the foundations of effects of philosophy caused by those circumstances.

The focus of ideology critique is defining different ideologies of different groups and comparing and contrasting them each from a negative perspective, rather than supporting some particular ideologies, because positive descriptions would amount to perpetuating these ideologies rather than critiquing them. Accordingly, Sloterdijk describes ideology critique as demonstrating that a debate between at least two ideological parties involves talking past one another rather than taking the opposing parties' concerns and analyzing the pros and cons of each ideology. Ideology critique is thus a description of ideologies involving their miscommunications. What has been offered here are the very structures by which political and cultural ideologies are based. The structures are the same for each ideology, although the actions and ideas are categorized differently.

Sloterdijk maintains (1987) that

The focus is on the structure of a reflexively buffered false consciousness. Nevertheless, I want to show that this structure cannot be grasped without localizing it in a political history of polemical reflections. There can be no healthy relation to modern-day enlightenment to its own history without

sarcasm. We have to choose between a pessimism that remains "loyal" to its origins and reminds one of decadence and a lighthearted disrespect in the continuation of the original tasks.

How do differing ideologies challenge sarcasm recognition? The following example demonstrates a situation in which two differing types of ideological viewpoints are compared between two people in a brief part of a conversation with a male expresser and a female interpreter. The amount of mentalizing amongst both subjects is described in relation to a single statement.

Expresser E:

- (1) The expresser (E) disbelieves (i.e., d) that what he said (i.e., the expresser's own statement (s)) is true.
- (2) He believes that the interpreter disbelieves his statement is true (i.e., before and after he said the sentence to her).
- (3) Lastly, the expresser believes that the interpreter believes that the expresser disbelieves his own statement is true (i.e., before and after he said the sentence to her).

Restated in symbolic form this is:

- (1) Eds
- (2) EbIds
- (3) EbIbEds

Interpreter I:

(1a) The interpreter (I) believes that the expresser's statement is true (i.e., t) after she

hears him utter it.

(2a) She believes that the expresser disbelieves his statement (i.e., the interpreter is correct).

(3a) The interpreter believes that the expresser believes she disbelieves his statement is true as well (i.e., she is again correct).

Restated in symbolic form this is:

(1a) Ibst

(2a) IbEds

(3a) IbEbIds

The aforementioned example contains a structure in which the expresser and interpreter appear to agree with one another from the vantage point of the expresser but not from the perspective of the interpreter. Moreover, a third party may observe the interpreter to be more intelligent, experienced, secretive, or devious, or one may perceive the expresser to be less intelligent or more willing to share his personal beliefs. Notice here that it is the difference in truth-values between (1) and (1a) that matters in relation to the difference in the expresser and interpreter's ideologies, which demonstrates how fundamentally an ideology may function in relation to mentalizing. Moreover, a correspondence theory of truth may indeed be advocated if the expresser and interpreter discussed the truth-value of the disagreement that is unrecognized by the expresser and recognized by the interpreter.

Therefore, the expresser's mentalizing is inaccurate for (2) and accurate for (3),

which illustrates that the individual can be incorrect about a first-order ToM and be correct about a second-order ToM in virtue of the description of ToM in the form of a proposition. The interpreter's mentalizing is accurate for (2a) and accurate in the case of (3a) under these same lights. From the perspective of the expresser, if the interpreter recognized the fact that he knows about her own beliefs and desires, ⁶⁰ then he may readily discover that she believed, contrary to his opinion, that his statement is true.

This description of two people mentalizing may represent any number of differences in the ideologies recognized by the interpreter in which at least some difference between ideologies is not recognized by the expresser. These sorts of instances can be instantiated within the experimental setting in which a subject could be sitting in a waiting room, awaiting the experiment, which is actually being conducted within the waiting room with certain contextual objects relating to a confederate's statements (e.g., a magazine with some political jargon).

Perhaps a group of philosophical positions are recognized by the interpreter as a portion of the expresser's web of beliefs concerning politics and economics, which may have been assumed to be quite different to her, if they had both been wearing different clothes or none at all, for instance. Thus, a slight change in the situational variables, such as clothing, or cleanliness or being dirty, race and age, for instance, could greatly affect the conclusions maintained via mentalizing and recognizing one's ideology supported by a sarcastic or ironic expression.

Based upon a particular political belief the woman in the mentioned example may

⁶⁰ The available number of possible combinations could be considered here, namely, when the expresser mentalizes true or indeterminate or false for (1), true or indeterminate or false for (2), and true or indeterminate or false for (3), and the interpreter mentalizes true or indeterminate or false for (1a), true or indeterminate or false for (2a), and true or indeterminate or false for (3a).

be able to place the man within a particular socio-economic class and may choose to conceal certain facts about her own identity from the man via agreeing with him and showing that she recognizes the non-literal wordings he speaks. Maybe she will only criticize the man's opinions in front of a selected few people, and plausibly she shall overlook their differences and begin a long-lasting relationship with him.

In summation, the elaborate social interactions arising from and independently surrounding the critique of ideology are complex at the level of just two people, whereas the level at which certain arguments are put forth in relation to society are vastly different and are largely incomprehensible. The aforementioned example demonstrates an aspect of the structural differences residing within the various mental states of those who utilize and recognize sarcasm and irony and in relation to ideology.

Can a Two-Party Political System be a Hegemony?

The importance of understanding the complexity of the critique of ideology involves, to a great extent, the propagandizing and prejudicial nature of well-supported political factions in the West, for instance, in which a type of dichotomous thinking is instantiated in the form of sets of issues of which the masses form a "for-or-against" attitude on a whole set and multifarious array of political issues.

So, for instance, the issues of legalizing or continuing with the legal status of abortion, changing the society's healthcare system so that it incorporates the large portion of the uninsured, maintaining the legal status of the death penalty, allowing intersexuals, homosexuals and others to have marriage rights and various other issues that are very important to particular individuals who have not formed "recognized groups"—they are

all "lumped" together into *TWO media outlet-dominating groups*, and one group shall attain power concerning such issues, regarding any changes or continuances of these issues' legal statuses and implementations of punishments or penalties and allowances and benefits concerned; such a fate is that of every society with only two parties that, dominatingly, express their influences and narrow-minded viewpoints over the radio, television stations, newspapers, internet etc.

Those individuals, whom the legal status and enforcements affect the most, are more often *excluded from the two-sided debate* regarding any special "participation allowance" that is proportional to their amount of blame, responsibility, genuinely objective interest that transcends the desires of "recognized groups" and accountability regarding these issues.⁶¹

So, those individuals who will be affected at the point in which the laws change regarding abortion (i.e., potentially pregnant women), those greatly affected by the death

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⁶¹ Some of the reasons for this involve the best interests of the major party players being satisfied at the expense of the "unrecognized groups." For instance, to some extent the political issue of marriage involves government money because it allows tax reductions and the like, so if homosexuals are not allowed to marry, then the government can allocate greater benefits to those who have heterosexual marriages. The family members of executioners are excluded from the debate, partially as a result of shame or danger because it is shameful and risky, for instance, for a family member to reveal the fact that her father is an executioner even in Texas where the death penalty is largely socially acceptable; the parent could be murdered in response to this information being leaked. Moreover, there is an amount of secrecy surrounding the issue in which the parent may not tell the family what the parent's occupation is.

Furthermore, since different states within the US, for example, legally allow or disallow the implementation of the death penalty for first degree murder, there is a motivation by each political faction to let each state handle the issue by itself so that the political faction does not divide its voters on such an issue where losses concerning varying opinions on this issue may be able to decide the future elections, or to facilitate the entrance of a third party competing against the two. The last concern is greatly involved with the strategy of both dominant political factions which work together to disallow other political factions from entering the candidacy competition. This system of combining political strategies and controlling the ideological jargon of the political debate—all wrought by those in power—is hegemonic. The "hegemony" therefore can convincingly produce the illusion, or societal delusion, that there are two opposite-ended powers rationally competing against one another for the opportunity to change the country in beneficial ways for their constituencies and the society as a whole. The illusion collapses when the maldistribution of wealth amongst the socio-economic classes facilitates diminishing production, decreasing demands for products and emigration increases, especially with those who are most well-educated (i.e., a brain drain problem).

penalty and its legal status (i.e., the executioners, their families, friends and the selection committees that choose them), and the people who plead for equal marriage rights (i.e., those who are only ambiguously labeled as males and females, such as hermaphrodites) are either not granted statuses as *viable groups* by which their best interests (i.e., in the forms of reasonable arguments supporting legislation) or their interests are overshadowed by the two bodies of the masses represented by two political factions who decide for them.

The latter "decision" by the masses is not a decision that is made freely or reasonably, but rather it is put forth in a practical sense that relates to the perception of one party that predicts how many people it might lose, i.e., concerning its head members' attainment of a sufficient number of votes to be placed into representative democratic power, if they were to support some stance that can be construed as being "against" their current position in relation to the traditional treatment of the legal system on the issue. The party's stance is therefore not fickle because its members fear the increase of risk when it involves the loss of potential, probable and especially the stable voters. Thus, there is a lack of spontaneity in the most positive sense of being spontaneous, which is absent from this dueling political faction system.

Within the political system the people remain quite obedient and passive as a result of boundaries that are placed upon the range of socially acceptable opinions (i.e., the spectrum of acceptable attitudes or stances toward the legal issues is *artificialized* by the two political parties controlling most of the public discourse via the media outlets, it is a type of false consciousness and ideological disaster that mistreats and mishandles real, objective problems via not considering valid groups simply because they have not

formed together as the "end-all, be-all of political concern," i.e., STABLE, LOYAL VOTERS), and the debate only takes place within this very narrow range of opinions because mundane approaches to the social problems are overanalyzed and criticized in ways that are often correctly interpreted as "political strategies expected to increase votes on one side."

Even the insults, muckraking, and mudslinging of one powerful political faction's members against the other faction creates a disregard for all of the other political factions and "unrecognized groups" (e.g., the families of executioners and intersexuals) so that third parties are largely ignored and viewed as "irrelevant" because the time on the TV, radio and space on the internet are overloaded with back-and-forth bickering, partisan quibbling, blathering, nit-picking, and this all inevitably leads to an aggrandizing of the hegemony itself, which is disguised as two political parties within the same system.

For instance, if one inquires "on the air" whether a hermaphrodite who was arbitrarily labeled as a "male" at birth *should* be allowed by law to marry a "non-ambiguous" male, one has inquired about an issue that is in the representative *democratic republic* of the USA in 2009, for instance, transcending this boundary presented by the parties in power, the *Democrat* and *Republican* parties. ⁶² Such a question suggests an *unrecognized group of individuals who are not perceived as voting for the same types of candidates* ⁶³

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⁶² Perhaps a third potential political party is missing here, namely, the Representative party, which would provide another confusion within the debate regarding the stances of the actual parties in relation to the meanings of their names or their names' derivations.

⁶³ Unfortunately, many individuals respond to the inquiry concerning marriage rights with the presumption that there are only two genders, male and female, rather than a gender spectrum in which many are only arbitrarily considered to be on either end, some ignore the question, find it disgusting and thus suppress or repress many thoughts about the issues concerned, or they simply do not understand the relevance of a "gender spectrum from female to male with intersexuals in the middle" because the debate between the

Thus, there is a lack of motivation to proceed with "justice as fairness" in the Rawlsian sense after placing oneself underneath a "veil of ignorance" during which each of us decide what the fairest principles are by which laws are created and enforced without any of us knowing before we decided upon these socio-economic issues that would be implemented before the "dice of fate" are rolled and determine whether each of is either less fortunate, poverty-stricken, diseased, crippled, obese, elderly, average or fortunate, youthful, beautiful, wealthy, or healthy. If one did not take a "risk" and hope and wish for the "best luck" when deciding upon the most just, fair and equal terms by which society could function, how exactly would these ethical principles affect the legal system by, of and for the people?

This discourse is generally not included within the political dialogues. It exemplifies both socio-philosophical thought experiments and thoughtfulness that is existent within the social space that political philosophers occupy, but the issue of time, directed efforts, money and the lack of political support (i.e., a perceived stable voting presence) disallow such intellectual clarity from entering the already overloaded media outlets by which the *ideologues under the guise* of the two political factions function.

Yet the lively debate between the narrow-minded two parties presents the illusion that well-thought and rational arguments have been researched sufficiently and the illusory perception that all participants have been considered deeply within the overall analysis is good enough for the general public. Presuppositions, which are generally tacit, (e.g., concerning the definition of sex, life, male, female, punishment and punisher) are reinforced within this system that disallows free thinking, critical thinking and

political factions has narrow limits regarding the range of perspectives.

produces ideologues "for" the next generation of the political faction, lovingly referred to as a "party."

The disallowance of these noble traits results from an overabundance of information that lacks a major element we may call "comprehensiveness" concerning the *context of significance* about the social issue discussed at hand. This absence of comprehensiveness is unjust because it greatly ignores "perspectives of individuals" with definite positions within society. Thus, those who have been executed after a judicial decision has been made and conviction and perhaps even after the convicted person made a so-called "confession," necessarily form a conceivable group we may call the "executed people who confessed to committing murder."

The latter individuals represent a group, however small, which deserves some recognition along with other groups, such as the wives, sons, daughters, brothers, sisters, mothers and fathers of executioners. Their opinions ought to be heard or represented in relation to the stresses that likely coincide with the implementation of the death penalty.

Irony and sarcasm may function here as a means by which the opinions of such people may involve more vivid portrayals of the atrocities experienced by such unrecognized group members. For instance, the son of an executioner might claim on the radio that "I LOVE IT when I hear my father wake up screaming with cold sweats in the middle of the night! . . . complaining of ghosts haunting him and always during the same week that the execution will take place. And, for the next month afterwards, my mother and father don't sleep together. No, no they just fight over whether "it" is worth the money. I . . . I simply find it hilarious! Kill the convicted! After all, they are just convicts, right? I'm glad those good men selected my dad for the job."

The power of such statements is determined by the "context of significance" such that a radio program that is dedicated to broadcasting the negative affects of this horrifying occupation on the executioner's family, for example, might view such irony and biting sarcasm as contributing to their cause because it can be interpreted as having an incredibly destructive impact upon the family life of the executioner.

Such sarcasm and irony can thus be utilized entirely as rhetorical devices that do not require the individual's opinions within the "unrecognized group" since the same statements can be expressed by anybody with sufficient acting skills. As argued in the preceding chapter, sarcasm, irony, exaggeration, lying, understatements and the like are all forms of deceptive expressions; they are rhetorical devices, types of reasoning, and may even be construed as lifestyles to some extent. For instance, perhaps it would make sense to talk about the compulsive liar, the sarcastic personality and the modest man in terms of understatements.

III.v. Political and Religious Sarcasm in front of World Leaders: Speech at the White House Correspondent's Association Dinner Saturday April 26^{th} 2006

This section and the following section presents two realistic examples of sarcasm in relation to political ideology, one spontaneously produced instance with sarcasm and a rehearsed speech by a comedian, actor and political activist, Steven Colbert. The latter example represents the rehearsed utilization of sarcasm and irony in relation to political and economic ideology and the function of the media or press. The second selection presented is with John Stewart and is an example of spontaneous sarcasm. Furthermore, I interpret these two examples as being important historically in the same sense that Sloterdijk refers to a "continuation of a polemical debate." This first example includes an introduction by an important member of the press and white house correspondent underneath the presidency of George W. Bush in 2006.

Colbert criticizes the role of the press as does John Stewart, but Colbert's speech is significant in that he publicly and harshly criticizes President George W. Bush while he stood right next to him and in front of famous actors, military generals, the First Lady Laura Bush and many other important figures in the US, such as Supreme Court Justice Scalia. Colbert verbally assaulted Bush with biting sarcasm, which was allowed and applauded by a fair number of people, although Colbert was criticized by the media, which responded with only a few short video clips, which were replayed several times on various news stations. Steven Colbert's ratings increased greatly after his performance of genuine and rehearsed sarcasm, despite his negative portrayal by the media.

The significance of this speech is related to its placement within the American historical context. The most powerful man in the world, President George W. Bush, as well as the media are criticized via biting and comedic sarcasm without any serious ramifications occurring as a reaction to Colbert. This marks a point in history that could be compared and contrasted with the instantiation of such satire that may have resulted in the assassination of the sarcastic expresser if it had occurred before the 20th century. Colbert and Stewart also utilize cynical reasoning, which is apparent from the very first lines of Colbert's speech.

Mark Smith, Associated Press (AP) Radio & Television White House Correspondent:

Ladies and gentlemen, the last speaker of the evening will be . . . Steven Colbert. I was feeling pretty pleased the day after signing Steven for this dinner when I came across an alarming news headline "Colbert declares AP NUMBER-ONE-THREAT facing America." . . . I had one of those pit-in-my-stomach, career-in-flames moments, and in panic I emailed Tom Curley, my boss. I said, "Tom, please tell me we're laughing about this." Fortunately, Tom replied, "yes Mark, we are, of course." Mr. President, usually you and the politicians are the ones in the cross-hairs at this dinner. Tonight, no one is safe! Ladies and gentlemen here with a special edition of the Colbert Report, Steven Colbert.

Stephen Colbert: Thank you ladies and gentlemen. Before I begin I've been asked to make an announcement: whoever parked 14 black, bulletproof SUVs out front. Would you please move them? They are blocking in 14 other black, bulletproof SUVs, and they need to get out. Wow, wow what an honor, the white house correspondent's dinner. To actually sit here at the same table with my hero, George W. Bush. To be this close to the man. I, I feel like I'm dreaming. Somebody pinch me. You know what? I'm a pretty sound sleeper. *Somebody shoot me in the face*. Is he really not here tonight? (Colbert turns and looks at President Bush and his wife sitting a couple meters away) Damn it. The one guy who could have helped.

By the way, before I get started if anybody needs anything else at their tables just speak slowly and clearly into your table numbers. Somebody from the NSA (National Security Agency) will be right over with a cocktail.

Mark Smith, ladies and gentlemen of the press core, Madame First Lady, Mr. President, my name is Stephen Colbert, and tonight it is my privilege to celebrate this president because we're not so different, he and I. We both get it! Guys like us, we're not braniacs on the nerd patrol. We're not members of the fact-da-nista. We go straight from the gut! Right sir? That's where the truth lies, right down here in the gut. Do you know you have more nerve-ending in your gut than you have in your head? You can look it up.

Now I know some of you are going to say that I did look it up, and that's not true. That's because you looked it up in a book. Next time look it up in your gut. I did. My gut tells me that's how our nervous-system works. Every night on my show, the Colbert Report, I speak straight from the gut. I give people the truth unfiltered by rational argument. I call it the "No Fact Zone." Fox News I want a copyright on that term

(Note: Fox News is the most popular right-wing political news station in the United States, which is owned by the Australian billionaire Rupert Murdoch, and the journalists proclaim themselves to be "non-biased, non-partisan and to have no spin away from the facts." However, the news agents on this station as well as others (e.g., MSNBC and CNN) express their own opinions about certain facts and the opinions of others, and they are "talk-shows" upon which they invite celebrities and politicians to speak about their opinions while they claim to be serious news agencies.) Colbert also refers to the "gut" because it is well-known in the US that somebody said to have "guts" is "brave."

I believe in democracy. I believe that democracy is our greatest export at least until China figures out a way to stamp it out of plastic for three cents a unit. By the way, Ambassador Jo Win Chung, thank

you. Your great country makes our "happy meals" possible. I said it's a celebration.

I believe the government that governs best is the government that governs least, and by these standards we have set up a fabulous government in Iraq. I believe in pulling yourself up by the boot straps. I believe it is possible. I saw this guy do it once in Circus Olay. It was magical!

And though I am a committed Christian, I believe that everyone has their own right to their own religion, be you Hindu, Jewish or Muslim. I believe there are infinite paths to accepting Jesus Christ as your personal savior. (laughter)

Ladies and gentlemen, I BELIEVE IT'S YOGURT, but I REFUSE to believe it's not butter! Most of all I believe in this president. Now I know there are some polls out there saying that this man has a 32% approval rating, but guys like us, we don't, we don't pay attention to the polls. We know that polls are just a collection of statistics that reflect what people are thinking IN REALITY, and reality has a well-known liberal bias. So, Mr. President, pay no attention to the people who say the glass is half full. 32% means that the glass—(pause) It's important to set up your jokes properly sir. Sir, please pay no attention to the people who say that the glass is half empty because 32% means that it's two-thirds empty. There is still some liquid in the glass, is my point, but I wouldn't drink it. The last third is usually backwash . . .

Above Colbert is referring to two incredibly popular company logos that have been around for decades in the US, which are called "I Can't Believe it's Yogurt" (i.e., similar to an ice cream shop chain, which is a popular advertising campaign in the US), and "I Can't Believe It's not Butter!" (i.e., the brand of margarine spread that tastes like butter and is a popular advertising campaign). Since Colbert is stating the exact opposite of these company logos, and these logos' names and contents are actually well known facts because Americans believe it is actually yogurt and that it is not really butter, Colbert implies that he "most of all" does not believe in President Bush, which probably means that he has no faith in his abilities to govern, for instance.

Cleverly, Colbert stated the latter in order for people to actually applaud.

Furthermore, Colbert directly compared the 32% of supporters or individuals who approved of Bush's ratings to "backwash" (i.e., the saliva and warm remainder of a drink toward the bottom, which contains more germs if more individuals are drinking the beverage).

(Turning to President George W. Bush) Sir, don't pay attention to the approval ratings that say that 68% of Americans disapprove of the job this man is doing. I ask you this. Does that also not logically mean that 68% approve of the job he's not doing? Think about it. I haven't! (audience laughter) I stand by this man. I stand by this man because he stands for things, not only for things, he stands on things, things like aircraft carriers and rubble and recently flooded city squares. And that sends a strong message that no matter what happens to America, she will always rebound with the most powerfully staged photo ops (opportunities) in the world . . . The greatest thing about this man is that he's steady. You know where he stands. He believes the same thing Wednesday that he believed on Monday, NO MATTER WHAT HAPPENED TUESDAY! Events can change. This man's beliefs never will!

And as excited as I am to be here with the president, I am appalled to be surrounded by the liberal media that is destroying America, with the exception of Fox News. Fox News gives you both sides to every story, the president's side and the vice president's side. But the rest of you, what are you thinking, reporting on NSA wiretapping or secret prisons in Eastern Europe? Those things are secret for a very important reason—they're super depressing, and if that's your goal, well, misery accomplished. Over the last five years you people were so good over tax cuts, WMD intelligence, the affect of global warming. We Americans didn't want to know, and you had the courtesy not to try to find out. Those were good times as far as we knew.

But listen, let's review the rules. Here's how it works. The president makes decisions. He's the decider. The press secretary announces those decisions, and you people of the press type those decisions down. Make. Announce. Type. Just put them through a spell check, and go home! Get to know your family again. Make love to your wife. Write that novel you've got kickin' around in head. You know, the one about the intrepid Washington reporter with the courage to stand up to the administration. You know,

fiction! (audience laughter) Because really, what incentive do these people have to answer these questions after all? I mean nothing satisfies you. Everybody asks for personnel changes, so the White House has personnel changes, and then you write, they're just rearranging the deck chairs on the Titanic. First of all, that is a terrible metaphor. This administration is not sinking. This administration is soaring! If anything, they are rearranging the deck chairs on the Hindenburg!...

Let's see whom we've here tonight. We've got General Mosely, Airforce Chief of Staff. We've got General Peter Pace, Chairman of the Joint-Chiefs-of-Staff. They still support Rumsfeld. Right, you guys aren't retired yet, right? Right, they still support Rumsfeld!

Steven Colbert insults President Bush for something that people claimed was a good quality about Bush during his 2004 campaign, which is the fact that Bush had not changed his views, but Colbert implies that there are many examples, and probably EXTREME examples, within certain situations in which Bush believes the same thing on Monday and Wednesday and where Tuesday's events would not allow a reasonable person to believe such. This latter interpretation of Colbert's comments should really be interpreted after observing his facial expressions of both Bush and Colbert within the video of this speech online.

Colbert criticizes the news agencies by claiming that their occupations only involve typing and spell checking what has been afforded to them by the press secretary. He claims that the press can only dream about standing up to the administration of President Bush. Finally, Colbert uses a metaphor to describe the Bush administration as a soaring, flaming disaster. By December 2006 Donald Rumsfeld, the Secretary of Defense for the US, was dismissed, and Colbert razzed the generals attending by insinuating that if the other generals had not retired, then they too would be supporting the current and negative decisions made by the Secretary of Defense.

III.vi. Jon Stewart on the CNN Show "Crossfire":

Tucker Carlson and Paul Bengala before the 2004

Presidential Election between John Kerry and George W. Bush

Jon Stewart: I'm here to confront you because we need help—from the media, and they're HURTING us,

and the idea is (Stewart is interrupted). Applause

Paul Bengala: If the indictment is—Let me get this straight. If the indictment is, and I have seen you say

this, that Crossfire reasons everything, and that's in the intro-left, right-well, it's because, see, we're a

debate show.

Jon Stewart: No, no, no no, no, that would be great. To do a debate would be great, but that's like saying

that pro-wrestling is a show about athletic competition. (Stewart is interrupted again)

Tucker Carlson: I'm sorry. I think that you are a good comedian. I think your lectures are boring. Let me

ask you a question on the news.

Jon Stewart: Now this is theater.

Tucker Carlson:. It is. No, no, it is.

Jon Stewart: I mean it's obvious. How old are you?

Tucker Carlson: 35.

Jon Stewart: And you wear a bow tie. (applause)

Tucker Carlson: Yeah, I do. I do. I do.

Jon Stewart: So, this is theater. And I'm not suggesting that you are not a smart guy because those are not

easy to tie. But the thing is that you're doing theater when you should be doing debate, which would be

great. It's not honest. What you do is not honest. What you do is partisan hackery, and I'll tell you why I

know it (Stewart is interrupted by Carlson again).

Tucker Carlson: You invite John Kerry on your show, and you sniff his thrown, and you're accusing us of

partisan hackery?

Jon Stewart: Absolutely.

Tucker Carlson: You have got to be kidding man!

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Jon Stewart: You're on CNN! The show that leads into me is "Puppets making Crank Phone Calls." What is wrong with you?!?

Tucker Carlson: Well, I'm just saying, there is no reason for you, when you have this marvelous opportunity not to be the guy's butt-boy to go ahead and be the guy's butt-boy. That is embarrassing!

Jon Stewart: I was absolutely his butt-boy. I was so far—You would not believe what he ate two weeks ago. You know the interesting thing that I have is (interruption by Crossfire)—You have a responsibility to the public discourse, and YOU FAILED...

Tucker Carlson: (speaking simultaneously with Stewart's last two words) You need to get a job at a journalism school, I think.

Jon Stewart: MISERABLY. You need to go to one. The thing that I want to say is when you have people on for just knee-jerk reactionary talk. (Interruption)

Tucker Carlson: Wait, I thought you were going to be funny.

Jon Stewart: No, no, (shaking his head) I'm not going to be your monkey.

Paul Bengala: What? Go ahead.

Jon Stewart: I watch your show everyday, and it kills me. It's so painful to watch.

Tucker Carlson: I can tell you love it.

Jon Stewart: Oh, it's so painful to watch. You know—because we need what you do. This is such a great opportunity you have here to actually get politicians off of their marketing and strategy.

Tucker Carlson: (Interrupts again) Is this really Jon Stewart saying this? He said he was.

Jon Stewart: Yeah, it's someone who watches your show and cannot take it anymore. I just can't!

Tucker Carlson: What's it like to have dinner with you? It must be excruciating. Do you like lecture
people like this, and you come over to their house, and sit and lecture them, and you let them know they're
not doing the right thing, they're missing their opportunities, evading their responsibilities?

Jon Stewart: If I think they are.

Tucker Carlson: Eww. I wouldn't want to eat with you man. That's horrible.

Jon Stewart: I know, and you won't. But the thing I want to get to is (Stewart is interrupted again)

Paul Bengala: We did promise pictures of the Supreme Court.

A Commercial Break takes place.

Jon Stewart sometimes holds up a dictionary for translating a fictitious language called "military industrial complex" to English—English to "Military Industrial Complex," which is supposed to translate actual footage broadcast from the US Senate and House of Representatives. Stewart's expressions function in many instances as a source of politically biting sarcasm with such cleverly funny presentations for many. An example of the ideology within America that Stewart faces as an opponent is largely the material brought about by the Fox News corporation and characters such as Sean Hannity and Bill O'Reilly, two syndicated and so-called "conservative" talk-show hosts.

Ideologically speaking, the true meaning of the terms "conservative" and "liberal" are at great odds in relation to American political ideologies. Each word is used against groups as an insult. For instance, Democrats are often referred to by Republicans as "damn liberals," whereas Republicans are referred to as "bias conservatives" by Democrats in the US. The actual definitions of these terms are as follows: (1) A liberal is an advocate of progressive social, political and economic reforms; and (2) A conservative is one who advocates traditional social values and norms in relation to social, political and economic ways that have been successful, for instance.

However, the Devil's Dictionary states the definition of these two terms which illustrates an ideological reason in which there is a sharp division between opposing groups. Ambrose Bierce states that a "conservative (is) a statesman who is enamored of existing evils, and distinguished from the Liberal, who wishes to replace them with others." The actual dictionary definitions are positive, but they do not function in society within the historical interpretation and context from which they are derived, so

⁶⁴ A special thanks to Prof. Christopher "Twister" Marquis is necessary for bringing the facts about the different styles of dictionaries to my attention.

they are used negatively with "false consciousness."

The so-called "partisan hackery" described by Stewart is descriptive of this division in relation to the people who make appearances on shows that argue against the points of the other political party and, most importantly, the other ideology. In essence, this results in the perpetuation of quibbling rather than controversial and in-depth issues that are "debated." The individuals thus prepare for the show in order to best the other individual rather than laying out the best arguments and properly accepting and responding to criticism.

At one point during the exchange between Stewart and Carlson, Carlson sarcastically claimed that Stewart "sniffed John Kerry's thrown" (i.e., Stewart is said to have placed his nose next to where Kerry's buttocks had been and tells him only nice things, such as that he smells good) and claimed that Stewart did not "ask tough questions." Stewart responded by claiming in a cleverly funny way, with the audience's laughter, that his venue is supposed to be comedic on the Comedy Central television network rather than informational news casting saying, "I didn't realize . . . the news organizations look to Comedy Central for their cues on integrity."

Afterwards Carlson replied to Stewart, "I think you're more fun on your show," and Stewart responded directly before the commercial break, "You know what's interesting though? You're as big a dick on your show as you are on any show," which was the last comment within the exchange before the commercial break.

John Stewart criticizes the media, like Steven Colbert, and claims that the news program they are representing actually promotes partisan hackery, which involves people who partake in an activity without any talent. Politicians use the CNN network, which is

well-established in the US as a news station, for the purpose of "marketing and strategy" so that they can attain more votes and support their own interest groups, ideologically. Stewart's viewpoint is a cynical one, but he is optimistic in that he believes it is possible to change the system (i.e., the system need not continue to function cynically via advocates irrationally defending their own interest groups).

Only a few months after this 2004 program aired, Crossfire was cancelled by CNN, and they did not renew Tucker Carlson's contract. Additionally, about a year later Carlson was working for another news network, MSNBC, and stopped wearing his bowties. After the end of the Crossfire show Jon Stewart stayed and spoke with Tucker Carlson and Paul Bengala for hours about his concerns that he expressed in relation to their show and the role of the media within society. Stewart later attained a contract with CNN international, and he is broadcast in many countries.

III.vii. Kynicism, Open Discussion and Sarcasm as Rejoinders

Sloterdijk writes (1987 p. 101)

Ancient kynicism, at least in its Greek origins, is in principle cheeky. In its cheekiness lies a method worthy of discovery. This first really "dialectical materialism," which was also existentialism, is viewed unjustly, beside the great systems of in Greek philosophy--Plato, Aristotle, and the Stoa--as a mere game of satyrs, as a half-jovial, half-dirty episode, and is passed over. In kynismos a kind of argumentation was discovered that, to the present day, respectable thinking does not know how to deal with. Is it not crude and grotesque to pick one's nose while Socrates exorcises his demon and speaks of the divine soul? Can it be called anything other than vulgar when Diogenes lets a fart fly against the Platonic theory of ideas--or is fartiness itself one of the ideas God discharged from his meditation on the genesis of the cosmos? And what is it supposed to mean when this philosophizing town bum answers Plato's subtle

theory of eros by masturbating in public? . . . The core of every doctrine is what its followers embody of it. This can be misunderstood in an idealistic way as if it were philosophy's innermost aim to get people to chase after unattainable ideals. But if philosophers are called on to live what they say, their (p. 102) task in a critical sense is much more: to say what they live. . . . To embody a doctrine means to make oneself into its medium. This is the opposite of what is demanded in the moralistic plea for behavior guided strictly by ideals. . . . Those who rule lose their real self-confidence to the fools, clowns, and kynics; for this reason, an anecdote has Alexander the Great say that he would like to be Diogenes if he were not Alexander. If he were not the fool of his political ambition, he would have to play the fool in order to speak the truth to people, and to himself. (And when the powerful begin, for their part, to think kynically, when they know the truth about themselves and, in spite of this, "go on as before," then they completely fulfill the *modern* definition of cynicism.)

The most appropriate example here of kynicism within the modern polemical analysis of actions is the mid December 2008 surprise visit to Baghdad, Iraq in which an Iraqi journalist named Muntadar al-Zaidi, overwhelmed with anger toward President George W. Bush's visit, threw both of his shoes at Bush and shouted at him in Arabic "this is a goodbye kiss from the Iraqi people, dog." He yelled at him also that "this is for the widows and orphans and all those killed in Iraq" as a response to the 2003 invasion of Iraq and five years of warfare and Bush's 2008 speech in Iraq.

In the Arab cultures just showing the bottom of a shoe is one of the most insulting gestures because it involves filth, but President Bush responded by claiming that "if you want the facts, it's a size ten shoe that he threw." Furthermore, Bush did not respond like he was insulted at all from the incident, and he claimed that this is an example of what people do within "free societies and democracies." Thus, he wielded the incident to serve as an example that supported his own ideology (i.e., one interpretation). However, the

man was thrown in prison and sentenced for a few years, although he did not cause any bodily harm to the president. Perhaps the journalist's expression of disgust with President Bush would have been better recognized if he would have had feces on the bottom of his shoes that smeared over the President's face. The latter case would have been a better example of kynicism nevertheless, but this is a very appropriate example in relation to kynicism within our contemporary, globalized world.

Another type of response to such situations could be an "open discussion." In South Africa people were able to use different media outlets in order to voice their opinions and describe forms of oppression and violence in the context of open discussion forums about the apartheid. In such obvious situations as South Africa between the late 1940s and early 1990s in which people were given privileges based purely on the fact they were from European origins, and others had privileges taken away otherwise—the issue of deception here is irrelevant since it is obvious who had rights and whom the individuals were that lacked them.

The repression of a people via deception and the creation of interest groups with members who have their own "objective best interests" are compromised as a result of being successfully deceived. "Open discussion" in the South African sense can only function properly after individuals have been made aware of the fact that they have been deceived and have espoused at least certain aspects of an ideology that is detrimental to their best interests (i.e., the most important interests to groups to which they belong). Thus, "open discussion" only functions for those who are educated well enough to be able to express the fact that their best interests have been compromised for the benefit of some other interest group or groups.

It has been maintained by Peter Sloterdijk that the generational pessimism and cynicism expressed by those who grew up only during the time period of a Germany in shambles within the 1960s and 1970s sought a sort of refuge from the optimistic and idealistic previous generation which had wrought war and destruction with their extreme nationalism and fascism. Sloterdijk's *Critique of Cynical Reason* marks an historic period from cynical and kynical reasoning but stops short at an analysis of another type of reasoning that a post-reconstruction society has the need and energy for, according to Sloterdijk, namely, sarcasm (see p. 152 for Sloterdijk's quote).

Sarcasm acts as a "biting" response to irrationality that often accompanies a forlorn cynicism. Sarcasm does this via media outlets, satire, and comedy. It entertains, but acts to remove the false consciousness associated with cynicism in which the coinciding skepticism and pessimism have become irrational at the detriment of enlightenment. The negative connotation of sarcasm is not as socially unacceptable as kynicism or cynicism, although sarcasm can be very insulting.

Furthermore, sarcasm is sometimes an attribute of open discussion forums. In fact, during an open discussion the expression of sarcasm either may increase the amount of attention that people pay to an expresser, or it may be misunderstood in such a way that the listener interprets the sarcastic statement as being sincere. In the latter case the expresser has the opportunity to scold the interpreter since the very meaning of the expresser's words were unrecognized by the interpreter in response. Sarcasm thus functions in various ways and is an aspect of effective communication if used properly.

III.viii. The Metaphysics of Ideology

I shall argue that underlying a neo-Kantian metaphysical conception resides only the stance known as "hard determinism" within the distinction between *noumena* (i.e., "Ding an sich" or object within itself, which transcends any perceptions of the actual object, and noumena exist independent of perceptions and minds) and *phenomena* (i.e., "Phänomene" are the perceived aspects of objects that depend upon actual objects for their existence, they are illusions and they are all appearances, including hallucinations). This analysis is based upon a common misconception about an epistemological and metaphysical distinction between logical and physical possibility and impossibility, which allows a denser analysis into the nature of ideologies.

It is argued that metaphysics only contains two categories, namely, the physically possible (Pp) and the logically impossible (Li). Furthermore, the remainder of this chapter analyzes religious and scientific ideologies, which is crucial in relation to understanding higher forms of cognitions, such as lying, irony and sarcasm. Metaphysics is concerned here in relation to the ideologies, which can be demonstrated as categorizing events and objects in various ways in relation to whether they are possible or impossible and physical or logical.

It shall be explained that the objects of physics, including appearances and noumena (i.e., physics attempts to describe functioning objects independent from any appearances as well as appearances, such as predictable appearances, which are independent of the appearances), reside within a small portion of (PP), which is a cognitively established categorization encompassing a smaller ontological category of

(Pp) (i.e., ontologically physically possible as opposed to epistemically physically possible events).

The remaining categories, logical possibility (LP) and physical impossibility (PI), are neither ontological nor metaphysical categories but are ideological options by which we categorize worldly events as opposed to events that have not and will never occur (i.e., the metaphysically logically impossible rather than the epistemically logically impossible events). These categories would be necessary for analytically supporting free will and soft determinism and the principle of "contingent events," but their members do not exist independently nor apart from cognition, so hard determinism is the only viable, consistent, parsimonious and comprehensive stance remaining.

Logical, Impossibility, Possibility, and Physical (LIPP)

We may properly define and distinguish logical possibility (LP) and physical possibility (PP) in respect to descriptions of events and, contrarily, logical impossibility (LI) and physical impossibility (PI) concerning events in the following manner: (1) "(PP)" means that "the description of an event at hand is neither (PI) nor (LI), and it is always (LP);" (2) "(PI)" is "the description of an event that is either (LP) or (LI), but not both, and it is not (PP);" (3) "(LP)" means that "the description of some event is either (PP) or (PI), but not both, and it is not (LI);" and (4) "(LI)" means that "the description of an event is (PI) and neither (LP) nor (PP)." I argue that the only ideological difference between events categorized as "logically and physically possible" is an epistemological rather than a metaphysical distinction. This is the LIPP (i.e., Logical, Impossible, Possible, and Physical) Framework.

III.ix. Soft LIPP Framework for Epistemology

		(L) Logical		(P) Physical	
(_P)	(PP v PI) & ~(PP & PI) & ~(LI)			(LP) & ~(LI v PI)	
Possibility					
(I) Impossibility	(PI) & ~(LP v PP)	(LP v LI) & ~(LP & LI) &	~(PP)

The LIPP framework is epistemic to the extent that the ideology⁶⁵ under examination will categorize beliefs, assertions, descriptions and identifications of events within the much larger categories of (LP) and (PI) (i.e. they are much larger categories because all (PP) and (LI) events are categorized within them) because those who categorize are uncertain about the proper categorization of the descriptions of events.

Moreover, all of the ambiguities asserted via unclear language, which give the impression that the particular assertion could be either logically possible or logically impossible (i.e., for (PI)), or contrarily, physically possible or physically impossible (i.e., for (LP)), are categorized within the (PI) and (LP) cognitively established sets. All scientific descriptions, identifications, and beliefs about political and economic activity may be categorized within this larger framework, which structurally functions in the

^{65 &}quot;Ideology" is defined as 'a system of ideals and ideas, especially about how to act and why, and the way of thinking that describes a particular, social class, group, or individual.' The problem with this definition of "ideology" is that the members of any group can be demonstrated to think differently from one another on various topics, for instance. Thus, "ideology" is a descriptive term that captures the similarities amongst members. Moreover, "ideology" is generally referred to in relation to a group's views about political and/or economic theory. For Marx, the term "ideology" means "false consciousness," which is the variety of abstract beliefs that do not take material or historical existence into account via the distortion and concealment of social contradictions (Kearney, 2003). Here I shall use the term "ideology" to refer to scientific ideologies, such as those of Aristotle, Galileo, Newton, Darwin and Einstein. Consider the idea of absolute versus relative time.

following manners via the scientific method, observations, research and experience:

What was once (LP) shall become (PP), or contrarily, (PI) and then (LI), and what was once (PI) shall become (LI), or contrarily, (LP) and then (PP) through the workings of good scientists; this is the structure in which all scientific revolutions happen.

In respect to Aristotelian dynamics, phlogiston chemistry and caloric thermodynamics Thomas Kuhn (1970 p. 8) argues, and we may expand the number of ideas further to incorporate religious, political and economic worldviews, that "if these out-of-date beliefs are to be called myths, then myths can be produced by the same sorts of methods and held for the same sorts of reasons that now lead to scientific knowledge. If, on the other hand, they are to be called science, then science has included bodies of belief quite incompatible with the ones we hold today. Given these alternatives the historian must choose the latter."

Take the following example of a religious ideology into consideration. Part of this ideology was inculcated within the public through the writings and education system that include St. Anselm of Canterbury during the 11th century, particularly the (LI) section of this graph below. The graph below is supposed to demonstrate a description of the ideology that existed between the founding of scholasticism and somewhere around the time period of St. Thomas Aquinas' *Summa Theologica*.

Example of an 11th Century Christian Ideology

	POSSIBILITY	IMPOSSIBILITY			
	God answers or listens to all	A world in which the greatest			
	of your prayers if you believe	of all conceivable beings does			
LOGICAL	in Him, and every event	not exist.			
	happens for a good purpose				
	within God's plan.				
	An omniscient, omnipotent,	Prayers are answered in other			
PHYSICAL	omnibenevolent God who is	ways than through God.			
	present everywhere at all times,				
	bodiless, and a personal Being.				

Religious cynicism is an ideology that is expressed sometimes to strongly oppose religion without being confrontational. For instance, Benjamin Disraeli (Sloterdijk p. 275) asks, "And what will you do with the grail when you have found it?"

The methods of science and philosophy are identical in several respects. The philosophical method concerns: (1) observations of non-mundane and/or interesting sets of phenomena; (2) formations of hypotheses based on previous observations and workings with languages; and (3) hypotheses are tested via rational argumentation, logic, and any results ascertained by professional scientists. Hypotheses are further tested via counter-arguments within professional philosophical books, dissertations and journals via on-going hermeneutical dialogues and "fusions of Horizons" by which understanding takes place in the Gadamerian sense (i.e., die Horizontverschmelzungen).

III.x. Hard Metaphysical and Ontological Framework for LIPP

	Possible (_p)	Impossible (_i)
Logically (L_)	Non-metaphysical & Undecided epistemic, Conditional predictions	¬(Pp) and a cognitive categorization of events and Metaphysical
Physically (P_)	¬(Li) & ontological	Non-metaphysical & Undecided epistemic, Conditional predictions

The study of physics includes all four epistemic categories and makes use of the ontological and metaphysical categories in virtue of explaining how events are instantiated and how they are independent of any perceptions of them (i.e., Kant explicated the latter conception within the *Critique of Pure Reason* and *Prolegomena sect. 30*). Moreover, physicists calculate the range of the metaphysical, structural formulations, such as a "speed equals a distance divided by a time," such that the speed is experimentally established to have different limitations, depending upon the objects, like photons.

The structural, metaphysical formulations transcend the ontologically (Pp) events of our universe and are nevertheless metaphysically (Li); this means that these formulations not only explain the phenomena within our universe, but they also explain other worlds that are generally categorized by philosophers as "metaphysically possible" to the extent that the structured formations, which do apply to our world, *could* apply to

these other worlds⁶⁶ within some metaphysical conception, for instance, but these other so-called worlds vary in different respects. For instance, the claims that "the force equals a mass times the acceleration" and "energy equals a mass times the speed of light squared" transcend ontologically (Pp) events and must be categorized partly and ideologically as epistemically (PI); however, they are metaphysically (Li) whenever a mass is considered that is greater than the total amount of mass in our universe, for instance ⁶⁷

Metaphysically speaking with a correspondence view of truth, correct descriptions of noumena and phenomena reside within only one category: The Physically possible (**Pp**) ontological category, which is a portion of the larger (**PP**) epistemic category. Everything else that we conceive is cognitively categorized within the other three categories in addition to (**PP**). I shall further explain why exactly (**PP**) is an epistemic categorization rather than an ontological set of veridical descriptions within the following sections concerning the argument for physicalism and ancient Bulgarian Olympians.

Metaphysics' goal/focus/aim shall be the establishment of every event into two all-encompassing ontological and metaphysical categories: (Pp) and (Li), respectively.

The assertion that these characterizations, such as "a speed equals a distance divided by a time" (e.g., averaging 100 km/hr over a distance of 100 km will take exactly one hour, i.e., epistemically (PP)), can be applied to other worlds via the study of metaphysics, merely raises a set of inquiries about the status of this possibility, which is claimed to be (LP) but not (PP). However, (LP) is not a metaphysical category. (LP) is an epistemic, undecided judgment about the status of descriptions of events rather than metaphysical, and the formulation above is generally placed into the (LP) category when the speed at hand is said to be greater than the speed of light, the time period is considered to be longer than the time period by which our universe has existed, the distance is longer than any length proposed to be the approximate length of our expanding universe or simply if the average speed was slightly greater or less than 100 km/hr as it was said to be above, for instance.

⁶⁷ Here I mean that there is only one small category, which can be accurately described as "ontological," and formulations, such as E=Mc², are only ontologically (Pp) categorizations to the extent that they accurately describe either the noumena or phenomena in our universe (i.e., they are accurate as descriptions of phenomena only in cases in which they are also understood to be such). However, the vast majority of the descriptions that may result from applying excessively large or small numbers, weight units and so forth are metaphysically (Li).

The remaining two categories are epistemically vague: (LP) & (PI). They are by their very nature what Wittgenstein (1967, Sect. 681 & 682) called in his *Zettel* "eine bedingte Vorhersage" und "unentschieden" (i.e., a conditional prediction or statement and undecided rather than *decidedly* true or false). This should be thought of in relation to the cognitive establishment of an event within (LP) and (PI) epistemic and ideological categories. So, if event E occurring can *only* be conceived of, then it is epistemically categorized as (PI) and erroneously described as metaphysically (Lp) because the conception of E is said to commit no contradiction. However, E is, in fact, (Li).

Again, the framework for the ideological categorization by which the ontological, metaphysical and epistemological descriptions are based can be expressed simply in propositional logic.

$$1 \; (LP) \leftrightarrow ((PP) \; v \; (PI)) \; \& \; \mathord{\sim} ((PP) \; \& \; (PI)) \; \& \; \mathord{\sim} (LI)$$

$$2 (PP) \leftrightarrow (LP) \& \sim ((LI) \lor (PI))$$

$$3 (PI) \leftrightarrow ((LP) \lor (LI)) \& \sim ((LP) \& (LI)) \& \sim (PP)$$

$$4 (LI) \leftrightarrow (PI) \& \sim ((LP) \lor (PP))$$

Metaphysics is an attempt to establish physics via other means than scientific experimentation, and as part of this attempt involves: (1) rational argumentation; and (2) logic. Logic, language, cognition and argumentation are all metaphysically categorized as (Pp) because they exist and are understood to exist as cognitions, squiggles on paper, fonts on computers as well as Braille, hand signals, Morse code and vibrations of vocal chords and soft lips, for example.

The aspect of the larger epistemic set called "(LP)," for instance, excludes a

metaphysical categorization of (Lp) completely because (LP) means either (PP) or (PI), but not both. It must be either (PP) or not, but it is obviously an undecided cognitive categorization (i.e., rather than some set in which its members exists in actuality) in relation to an ideology, or perhaps it is even, in principle, dubious and impossible to know. The latter (LP) categorization is appropriate in this case and cannot be abolished because it may be a feasible option by which future scientific understandings may be attained. Scientific hypotheses are often formed as (LP) and then tested, for instance.

It is blatantly obvious that it is epistemically (LI) and metaphysically (Li) to draw a round triangle or a five-sided square. It is far less obvious that it is metaphysically (Li) that I was *drawing an orange oval a split-second ago* and that *this drawing* is metaphysically (Li) because I did not draw part of an orange oval. This latter reason shall not suffice for free will advocates or those who believe that events are by their very nature *contingent*, especially human choices in which cases there are options known and available to the individual, but it is sufficient for those hard determinists who believe that the effects of causes could not have resulted in any other consequences than those instantiated. Hard determinists thus categorize events as *necessary*.

Epistemic (**PP**) is an ideological viewpoint of some person or the way in which many categorize events as being "physically possible," whereas ontologically (**Pp**) is a category of actual members and inventory of the various objects (i.e., the noumena) in the universe that are necessary for our experiences of objects (i.e., phenomena). (LP) and (PI) epistemic categorizations should involve the placement of all descriptions of events into either the ontological (**Pp**) or metaphysical (Li) categories as the main goal of metaphysics, ontology and science, but this is epistemically impossible as an endeavor

since we cannot know anything about the objects within themselves, and we only know about the appearances of objects (Kant, 1783 & 1787).

III.xi. Metaphysical, Physical and Epistemic Categorizing

Physical objects (i.e., the noumena) are metaphysically confined within a minute portion of (PP) that I refer to as "ontologically (Pp)." (PP) is established ideologically, epistemologically and cognitively via principles of reasoning, especially mathematical and logical reasoning involving augmentations, deductions, multiplications, divisions, diminishments and exponential growth rate calculations. The noumenal, ontological and physical event category is called (Pp). However, this labeling is merely a structural analysis of the relations between epistemological categorizations (i.e., (LP), (PP), (PI) & (LI)) and ontological and metaphysical sets (i.e., (Pp) & (Li)) since it is a common mistake to categorize the events cognitively categorized simultaneously within one or two epistemic categories.

Here, I am stressing a greater emphasis on the concepts of Being and Possibility rather than Being and Time as in Heidegger's *Sein und Zeit*⁶⁸ (1927) or *Being and Nothingness* by Jean-Paul Sartre (1947) for the main reason that it is very applicable to Kant's works within his *Critique of Pure Reason* (1781 & 1787) and his *Prolegomena* (1783).

⁶⁸ Martin Heidegger's usage of the concept of "Dasein" replaced the distinction that modern philosophy had made between a subject with an inner-world (i.e., Innenwelt) and an outer-world (or environment, i.e., Umwelt) in which the subject is viewed as relating to and forming knowledge about this external world in manners about which philosophers preceding Heidegger were skeptical. Thus, philosophical questions prior to Heidegger largely concerned how we can attain knowledge of the world that is external to our perceptions of it and whether we can attain any empirical knowledge and certainty at all. Heidegger's notion of "being-in-the-world" in which Dasein (i.e., human being or an instance of human being as activity, but referred to technically as "being there" (i.e., Dasein) or as an organizational structure that is a located portion of the environment) disallowed him from making any explicit statements about persons, subject-object distinctions, beliefs, desires and other mental states. It thus is intriguing how a Heideggerian might explain the complex relation of 6th order beliefs in an intelligible way, relating to sarcasm and irony.

Moreover, we shall never be assured that our placement of both physical objects and events into the ontologically (Pp) category actually is precise because the most that we can maintain is that our cognitive categorizations of descriptions and actual physical events and objects into the epistemic category (PP) is useful, practical, seemingly accurate and incredibly counter-productive at some point if we continue to inquire and critique their actual, metaphysical statuses.

For instance, although Albert Einstein's general theory of relativity allows for certain, accurate predictions of events, which reside within the ontologically (Pp) strictly (i.e., if and only if they are indeed true descriptions of reality), before Einstein these ontologically (Pp) entities would have been categorized as (PI) or (LI) given the assumption with which they were working, during the late 19th century, i.e., relativity was inconceivable, or they may have been conceived of as (LP) and (PI) simultaneously.

§ 30 within Immanuel Kant's *Prolegomena zu einer jeden künftigen Metaphysik* die als Wissenschaft wird auftreten können (1783) (i.e., Prefaces to any future metaphysics that may appear or behave as science) argues,

"Hence if the pure concepts of the understanding try to go beyond objects of experience and be referred to things in themselves (noumena), they have no meaning whatever. They serve, as it were, only to spell out appearances, so that we may be able to read them as experience. The principles which arise from their reference to the sensible world only serve our understanding for use in experience. Beyond this they are arbitrary combinations without objective reality; and we can neither cognize their possibility *a priori*, nor verify their reference to objects, let alone make such reference understandable, by any example, because examples can only be borrowed from some possible experience, and consequently the objects of these concepts can be found nowhere but in possible experience.

This complete (though to its originator unexpected) solution of Hume's problem rescues for the pure concepts of the understanding their *a priori* origin and for the universal laws of nature their validity as

laws of the understanding, yet in such a way as to limit their use to experience, because their possibility depends solely on the reference of the understanding to experience, but with a completely reversed mode of connection which never occurred to Hume: they are not derived from experience, but experience is derived from them

This is, therefore, the result of all our foregoing inquiries: 'All synthetic principles *a priori* are nothing more than principles of possible experience' and can never be referred to things in themselves, but only to appearances as objects of experience. And hence pure mathematics as well as pure natural science can never be referred to anything more than mere appearances, and can only represent either that which makes experience in general possible, or else that which, as it is derived from these principles, must always be capable of being represented in some possible experience."

Allow me to express the importance of this solution to David Hume's problem concerning the nature of cause and effect events, coming directly after Bishop Berkeley's idealism in which to *be* is to be perceived (i.e., "Esse est percipi"). David Hume states (Sect. VII, part II) in his *Enquiry Concerning Human Understanding*,

"(W)e may define a cause to be an object, followed by another, and where all the objects similar to the first are followed by objects similar to the second. Or in other words where, if the first object had not been, the second never had existed. The appearance of a cause always conveys the mind, by a customary transition, to the idea of the effect. Of this also we have experience. We may, therefore, suitably to this experience, form another definition of cause, and call it, an object followed by another, and whose appearance always conveys the thought to that other. But though both these definitions be drawn from circumstances foreign to the cause we cannot remedy this inconvenience, or attain any more perfect definition, which may point out that circumstance in the cause, which give it a connexion with its effect. We have no idea of this connexion, nor even any distinct notion what it is we desire to know, when we endeavour at a conception of it."

David Hume's definition of "idea" involves a preceding impression so that whenever one feels the immediate impression of love or anger, or any sensations, such as those of color and olfaction, for instance, the recollection or reflection or thinking about

those impressions and sensations are the ideas, which is referred to as "mental imagery" in contemporary cognitive psychology. Interestingly, it is consistent, within Hume's account, to claim that some idea (e.g., the idea of some red apple after it has been eaten) is actually an impression as well as an idea such that one can form an idea of the idea (i.e., a metacognition).

For instance, one may dream about the idea that one had of the red apple later that same night. Impressions, however, cannot be consistently argued to be ideas; otherwise, the philosopher arguing would derive the same sorts of problems encountered within George Berkeley's idealism. What if we consider Kant's noumena and phenomena in a similar way to that of Hume's "impressions" and "ideas" and in relation to their functions within his philosophy?

One could argue consistently that Immanuel Kant's "Phenomenon" is indeed a "noumenon or, more likely, a set of noumena" (i.e., "Das Ding an sich"), although vice versa is not the case. This latter fact (i.e., that "things within themselves" are not composed of "appearances") is obviously true since there are hallucinations and illusions, and we could conceive of all appearances of events as being, at least in part, hallucinatory or illusory. Noumena are not phenomena, but noumena can be conceived of as composing all phenomena so that experiences are instantiated and materialism is true. (It should be noted that the "things within themselves (noumena)" for Kant are thinkable but not knowable.)

This Kantian distinction can be conceived in the same relation to the conception that Hume's *ideas* are also impressions since they are experienced, and the fact that, like Kant's noumena and phenomena, vice versa is not the case since fundamental

impressions are not ideas in Hume's conception and a noumenon is not a phenomenon (i.e., eine Erscheinung) within Kant's philosophy, but rather some noumena are miniscule parts or aspects of phenomena iff they exist and some form of realism is the case.

The importance of these discoveries by both David Hume and Immanuel Kant should be conceived in relation to the change of definitions of "cause" and "effect" amongst the dominating views within academia concerning metaphysics in the late 18th century, which has immensely affected our modern conceptions of reality. The very founding of the theory of biological evolution and the idea of the origin of species is based upon the problems and solutions sought by Hume and Kant especially.

Charles Darwin's ideas of evolution in his book, On the Origin of Species by

Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for

Life (1859), were predicated upon more fundamental notions of metaphysical

functioning, non-perceived processes and philosophical principles of cause and effect

events, which would not have been possible under Berkeley's idealism since the notion of
the ability for species to evolve over several generations would be complicated by the

metaphysical notion that the ontological status of any existent results necessarily from the
fact that it is perceived.

Immanuel Kant's transcendental idealism was a necessary step within the history of thought in order to overcome "Humean scepticism," which was a view that maintained we cannot know about the status of unperceived events. Kant's notion of "cause and effect" was thus crucial for a Darwinian understanding to evolve within systems of philosophical thought.

Furthermore, Hume's various portrayals of the notions of "cause and effect"

within his *Treatise* and *Enquiry Concerning Human Understanding* were overshadowed by the Kantian idea that (1) the cause and effect events and (2) the connections or powers employed between these two types of events—were plausibly not derived from experience, but rather experiences are possibly derived from the noumenal objects, which compose every event or every moving object. The latter fact is confusing when we apply this to experiential and phenomenal events since experiences and phenomena are composed of noumena within a physicalist perspective as opposed to such notions wrought by Frank Jackson (1982), for instance.

It appears at least that a skepticism concerning the existence of unperceived objects and processes must be overcome in the Kantian sense at some point within our histories of archaeological findings, population studies and environmental changes in order for the evolutionary processes, natural selections, kin selections and sexual selections to be recognized as viable options for academics, evolutionists and big bang theorists. Immanuel Kant was able to overcome this skepticism, and the idea of evolution was able to be developed after this point within our history of ideas and systems of thought.

The idea of biological evolution can be traced back to 6th century BCE with the fragments left by Anaximander of Miletus in present-day Turkey and ancient Appolonia, which is present-day Sozopol, Bulgaria. These fragments of ancient philosophy were transcribed by Hermann Alexander Diels in 1903 within his book *Die Fragmente der Vorsokratiker*, but Darwin is credited with the crucial notion of natural selection, although Anaximander appears to have utilized fossils to support his theory as well. However, Kant's notion of cause and effect and the role of experiences as phenomena

versus noumena still appear necessary in light of Humean scepticism and in order for these cause and effect notions that coincide with the selection processes (i.e., artificial, natural, kin, and sexual selections) to be better understood.

III.xii. The Case for Physicalism

Physicalism is the thesis that every explanation is a physical one and that all causes are physical and necessarily result in physical effects. This metaphysical and epistemic analysis takes physicalism to be true because (LP), (PI) and (LI) do not exist as non-cognitively established categories; thus, only the (PP) remains as a viable explanatory category for events and objects.

(LP) does not exist as a metaphysical category because it is an epistemic uncertainty to maintain that some event is: ((PP) v (PI)) & ¬((PP) & (PI)) & ¬(LI), which solely describes (LP). An event can be properly described as (PP) epistemically, but an ontological assertion about the status of the event is (Pp), i.e., a small portion of the (PP) category. (PI) does not exist as a metaphysical category because it too has an epistemic and undecided nature. Therefore, (LP) and (PI) only exist as our cognitive categorizations rather than descriptive features of actual events that diminish vagueness. These categorizations are such that an event categorized as (LP) could be (PI), which could be (LI), or (LP) could be (PP), and likewise (PI) could be (LP), which runs into the same problem mentioned, and (PI) could be (LI) after more thorough examinations of the event. These natural judgments and ideological categorizations allow for flexibility in relation to those aspects of objects and events about which we know very little.

This leaves us with two remaining categories, and one of which is (LI). (LI) is a

type of categorization of objects and events in which no actual events exist at all since only descriptions of fictitious events are described within epistemically (LI). Thus, (LI) is entirely a cognitive, epistemological, and metaphysical category created by our minds in order to establish the presence of certain events as being absolutely dubious in relation to their instantiations. Therefore, the one remaining ideological category is (PP), and thus, all facts are physical facts in relation to the universe, so physicalism appears to be the best explanation.

(PP) is also at least partially a cognitive category. For instance, (PP) as a categorization of some event means that the event is (LP) and is used in order to categorize the event as \neg ((PI) v (LI)) without the additional undecided aspect of the (LP) category description, which is ((PP) v (PI)). Mathematical and logical reasoning are utilized in order to place series of greater and lesser events into some category. Thus, every time an individual breaks a record in the Olympic Games most of us categorize the record time and all slower times, within reasonable limits, as (PP).

III.xiii. Ancient Bulgarian Olympians, Brains and Inconceivability

The noumena compose an extremely minute portion of the epistemic (PP), which is only the portion of the (PP) category that is ontologically (Pp). (PP) is a category that is cognitively established in order to facilitate an understanding of the universe, but most of the events within this category are misplaced as a result of *misguided cognitive* deductions on the basis of our mathematical and logical reasoning. Take, for instance,

an Olympic champion in ancient Plovdiv, Bulgaria⁶⁹ who may have run a mile in 3 min. and 10 s. Let us assume that he did perform this feat, that this is the fasted time ever and that it is the fasted mile that shall ever be run by a human in the future. Furthermore, let us assume that the second fastest time will be 3 min. and 20 s.

It is only a cognitive deduction if we maintain that a human can run a mile in 3 min. and 15 s given the aforementioned assumptions, and this deduction is based on our conceptions of mathematical and logical reasoning. However, our mathematical and logical reasoning is merely an aspect of the ontologically (Pp) inventory of actual events. It is a sort of cognitive process that enables us to deduce in this case that one can run a mile in 3 min. 11, 12, 13 or 14 seconds, for instance, but it establishes no fact in that matter whatsoever because mathematical reasoning is merely neural activity, soft lips, marks on tablets et cetera and through which we understand and categorize worldly events. Thus, with our aforementioned assumptions it is not physically possible to run a mile in 3 min. 15 s. But what if he were to have slowed down in the first case rather? Could the fastest runner have slowed down five seconds during the race?

When we imagine the "antecedent probability" of the event (i.e., imagine the likelihood of the event occurring before it happened), it appears even more unlikely that the fastest mile runner could have run a mile in 3 min. 10 s than to have run a mile a few seconds slower. Therefore, the event appears to be contingent when we imagine the setting of the event beforehand. We could imagine the wind slowing him down, or a muscle exhausting and the like.

⁶⁹ Plovdiv is the modern name for the city of Philippopolis (i.e., Φιλιππόπολις), which was an ancient Thracian province of Rome. Plovidiv is one of the oldest cities in Europe and older than Constantinople and Rome. It was conquered by Phillip of Macedon II, the father of Alexander the Great, and Alexander was taught by Aristotle. Later it was conquered by the Thracians. Lucian considered it the largest and most beautiful city.

First, if we were to assume that the man could have slowed down, and we propose this solely on the basis of our mathematical and logical reasoning, then this would allow us to falsely assume that he could run the mile in 4 min., 4 years, 4 decades and even 4 centuries! Deductions based upon mathematical reasoning thus require experience and set limitations based upon experience in this respect, or otherwise they may derive absurdities

Second, he did not slow down, so the conception of him slowing down would have to involve the consideration that something psychological was different than what really happened or that some external factor differed, such as a difference in wind speed, which would have all sorts of ramifications for the tens of thousands of people at the Olympics in Philippopolis. Moreover, we cannot imagine all of the logical consequences, or even a minute portion of them, if he were to have performed that lesser feat instead. The entire psychology, biology and chemistry of the athlete must be considered to be different than it was in actuality, along with muscle energy, wind resistance, atoms and subatomic particles changing as a result of the decidedly different categorization of an event (i.e., a 5 s difference) deemed (PP), which we had previously assumed to have never happened.

The view that events are contingent⁷⁰ is a metaphysical view that must incorporate an infinite series of cause and effect events which take into account that some event, such as a human slowing down five seconds within a one mile race, involves trillions of events at the microscopic level in which atoms are placed at some geographical location that could have been entirely different from their actual whereabouts. We could very well

This means that there are events that happened at some time t in the past in which some other events could have taken place at time t instead of the ones that actually happened (e.g., events that concern free will).

imagine that the runner turns into a bird and flies away, and this example may indeed be argued by the free will advocate as ridiculous because the objects within the event have been imagined to change to such a great extent, but trillions of events occurring differently at the microscopic level than they actually did occur is also a great change; it is a dubious contingency of the past at best.

Third, the fact that we could imagine somebody running slower based on experiences of these sorts of events would normally allow us to place these types of events into the (LP) category. However, such a categorization is merely epistemic rather than metaphysical, and the same holds true for both (PI) and (LI). The metaphysical status of contingent events (i.e., events which do not occur but where individuals claim they "could occur") is thus (Li), explaining the status of non-existents, which should not be surprising because they are never present and could never present their status as such since this categorization is purely cognitive.

The same is not the case for those events dubbed as being "necessary" because certain causes, such as consuming alcohol (e.g., Bulgarian rakiya), lead to certain chemical effects, which, under particular conditions, can be assumed to take place without exception and to that extent the effects are necessary. Necessity, however, is a metaphysical conception because predictions about what has been necessary and what will be necessary, according to all known observations, reside within the unknown realm of what the future holds

Causes are conceived of in two ways generally: (1) as sufficient conditions to the extent that something happening is enough to bring about an event, such as me pressing something (i.e., cause) and propelling it away from me (i.e., effect); and (2) as necessary

conditions in which something is needed in order to produce an effect, such as gasoline in the car, which is necessary for the car to motor down the highway.

One may continue to argue that the mentioned objections *contra* free will and the idea of contingent events in which the person can definitely be argued to have been able to run a 3 min. 15 s mile appear counter-intuitive because slowing down is something that we can dream about, conceive, choose and perform at will, freely it seems. Nevertheless, hard determinism has many interesting implications for concepts of choosing freely and willing, and it appears that at least some of the decisions made by humans do not enter our conscious awareness until many seconds after the decisions have been made, and the resulting behaviors are in some cases predictable.

Chun Siong Sun et al. (2008 p. 543) from the Bernstein Center for Computational Neuroscience in Berlin in *Nature Neuroscience* claim: "There has been a long controversy as to whether subjectively 'free' decisions are determined by brain activity ahead of time. We found that the outcome of a decision can be encoded in brain activity of prefrontal and parietal cortex up to 10 seconds before it enters awareness. This delay presumably reflects the operation of a network of high-level control areas that begin to prepare an upcoming decision long before it enters awareness."

Perhaps future discoveries will illustrate that the behaviors that we consider to be voluntary and free choices are readily determined by unconscious processes and only several moments later are we ever consciously aware of these rational choices selected from a variety of options. The status of human volition is an aspect of metaphysics that has certain ramifications for theology, philosophy of religion, philosophy of science, mind and consciousness, for instance. Francisco Carroyo Miguel Angel Cevallos

considered the problem of the possibility of metaphysics as science collided with five major challenges, namely, "dogmatism, agnosticism, criticism, skepticism and positivism" (1965 p. 44).

Metaphysics, however, continues to evolve in unexpected and incredibly complex manners, which affect the very fundamentals of science in such elaborate ways, becoming aspects of cultural common sense and groundings by which scientific understandings approach experimental analysis with an already evolved theoretical framework within a historical setting.

How can sarcasm and irony possibly be related to metaphysics in any way? We have observed a way in which metaphysical inquiries can be raised in relation to ideological categorizations and judgments, and the role of sarcasm within the context of ideologies allows for a "healthy relation to modern-day enlightenment," which would be impossible without sarcasm, according to Sloterdijk.

As higher order social cognitive processing *sarcasm* and *irony* function as diagnostic psychological tools (i.e., they serve to denote error and disorder). As types of higher order reasoning they transcend logic to such an extent that the *laws of non-contradiction* and of the *excluded middle*, for instance, do not provide us with a method for evaluating their functions within arguments. Sarcasm and irony encompass, probe and deride the utilization of pure reason. They allow us to denote what makes a mentally healthy human socially skilled rather than inept, and if metaphysics involves the study of the most complex entities in the universe, then the instantiation of the recognition of sarcasm within the human brain is quite relevant for metaphysics.

Metaphysics is the study of possible worlds via logic and rational argumentation.

It is a sort of comparative study of physics and all of the other sciences that are supervenient upon physics (i.e., chemistry, biology and psychology) and whatever else we can think of that does not involve an immediate contradiction. Metaphysics is utilized within ordinary language and everyday chit-chat to a great extent, and involves all of the statements, such as, "if I would not have done THIS, then I would have done THAT," in which THIS and THAT can be considered in relation to most of the events in anyone's life.

Sarcasm and irony function similarly in that they encompass both actuality and metaphysical possibilities, and they are often directly communicated in such a manner that an interpreter is placed within the inevitable position of either ignoring or recognizing or misinterpreting the non-literal wordings. It is not incredibly important what the expresser means exactly in terms of his beliefs and desires and the focus upon the so-called intentional meaning rather than the sentential or literal meaning of the speech, but it is important what the implications of the literal words are in relation the negative attitude (i.e., the written words describing the expression in which all emotional cues are absent, for instance).

The individual utilizes sarcasm and irony to express the way in which the world is not, but this is not always obvious, sometimes detrimental to the advocates of certain ideologies, often painful for the interpreter and the cognitions are quite complex in virtue of ToM skills and neurological functioning (i.e., more complex than similarly complex statements that are believed by the expresser and plausibly more complex in many cases than lying).

Hard determinism and physicalism are two ways in which we may understand

sarcasm and irony, the associated first-person conscious experiences, volition, the emotional attributes as well as the logical, linguistic facets of sarcasm and irony, but other accounts, in contradistinction, are needed for the neurocognitive, behavioral, literary, sociological, ideological and metaphysical aspects in addition to the *combinations* and *connections* of the two first-person experiences, i.e., of the interpreter and expresser.

Sarcasm as a form of reason can surely be considered to be a higher level type of social cognition by which two or more participants understand context, emotive expressions, literal meanings of language and the cues and signals that coincide with all. Sarcasm is a functioning skill that extends through media outlets and into the battles for political domination, suppression and controversy and as such it demands philosophical critique.

Conclusion

A philosophical critique of sarcastic reason must include an individualistic analysis of the expresser and the interpreter amongst their interrelations during the communication process. It was argued that both the expression and recognition of sarcasm involve any of our sense perceptions, and since *sarcasm and irony* demand the formation of higher order meta-beliefs, these two forms of reasoning, meta-recognition and expression are the most sophisticated forms of social cognition by which we communicate.

For the latter reasons sarcasm and irony are at best rare within the dream state. However, there is a type of dream state that involves vivid mental clarity, enhanced experiences of volition and the recognition that one is dreaming (i.e., lucid dreaming) which would perhaps allow an individual to dream of other minds which act as expressers and interpreters of sarcasm and irony.

Perhaps these similarities often are partially responsible for the confusion that people have in relation to distinguishing between sarcasm and irony. Sarcasm, however, has the characteristic of being cleverly scornful and biting and often is expressed as a positive sentence (e.g., one says, "Good job.") when the context allows the assertion to be interpreted negatively (e.g., the latter sentence was said to a person who just botched something). Often people do not consider it to be as negative and scornful as a direct insult (e.g., a boss or coworker says, "You failed."), and this is true probably because there is at least a positive element within the expression of sarcasm and sarcastic expressers sometimes pretend their negative connotations.

The First Principle of Sarcastic Reason: We may derive this first principle solely from the concept of sarcasm or irony, which maintains the following. If an individual expresses something just as if he or she believes or disbelieves it, (1) this does not entail that the individual believes or disbelieves the expression, (2) this does not entail that the expresser desires or expects some interpreter to believe or disbelieve the expression, (3) this does not entail that the expresser intends for some interpreter to believe or disbelieve that the expresser believes or disbelieves the expression, and (4) despite (1), (2) and (3) successful communication happens!

There is indeed a need for a theoretical framework for ToM experimentation and a need for innovative techniques by which adolescents can be measured in relation to their social cognitive skills. *Sarcasm* is one of the hallmarks of adolescence, which characterizes the developmental period of these "kings and queens" of sarcasm.

Those who are falling behind with their social cognitive development, such as those with brain damage may be taught important recognition skills via the utilization, practice and analysis of sarcasm and irony, and sarcasm can be utilized as a diagnostic tool in order to recognize the beginning stages of frontotemporal dementia as well as other disorders, such as certain types of localized brain damage caused by a stroke, for example. The theoretical framework offered here is called the "Cubic Formulation of the Belief-Reality-Desire Triad," which serves as a categorization tool by which behaviors can be more effectively predicted, ToM experimentation can be designed in innovative manners and past experiments should be criticized in virtue of their neglect of the mental state of *desire* within this research.

The idea of recognition concerning nonliteral wordings has been explicated in

relation to brain damage studies that illustrate the fundamental brain regions typically necessary in order to recognize sarcasm and irony (Shamay-Tsoory, Tomer & Aharon-Peretz, 2005). The role of "belief" in relation to sarcasm has been graphed at the first level, which includes either an expresser or interpreter's belief about their recognition of non-literal wordings. This graph categorizes the fundamental beliefs of a single expresser and interpreter during the conversational period in which non-literal words are uttered, and it is important for the categorization of sarcasm, exaggeration, irony and lying (i.e., the graph can also be applied to lying, exaggeration, joking, and the understanding of ironic comments) once techniques are created in order to test individuals' social cognitive abilities.

A new logical character has been applied in order to make sense of Wittgenstein's philosophical treatment of tautology, indecision and contradiction. This character is a "?," which functions within disjunctive propositions as a quantifier in order to express the fact that an interpreter or expresser is undecided in relation to a set of beliefs rather than advocating the law of the excluded middle or excluded third part for the purpose of treating the truth of a tautology as a more valuable conclusion than a contradiction.

The importance of this dissertation concerning these themes is related to the importance of attaining knowledge about our needs concerning socializing in general and about socializing at the highest cognitive and neurologically active levels. Moreover, the sheer complexity of the types of propositions describing multi-order beliefs illustrates a general need for symbolic logic within the field of social cognition and neurology.

Since the introduction of internet "chat rooms" (i.e., virtual spaces in which individuals can type messages to one another) computers have been programmed to make

human expressions and responses, so the most superficial instantiations of sarcasm have been performed by computers (i.e., without an understanding of the implications and feelings involved). These instances further support the idea that sarcasm must be studied from a logical framework, which has been accomplished here.

Sarcastic reason is a form of deceptive reasoning, and this facet of sarcasm allows it to be compared with and to share the same structural relations to lying, irony, exaggeration and joking, for instance, which is important in respect to the aforementioned graphs. Deceptive reasoning has been analyzed for over 4,400 years and includes a dense history before the Common Era. Philosophy of deception is fundamentally a branch of philosophy that encompasses both metaphysics and epistemology since the object or event which deceives an individual (or many of us or all of us) is *prima facie* viewed by the individual as a physical possibility and as an existent, although the object or event is neither, according to the latter metaphysical analysis offered in relation to ideologies and the LIPP formulation.

Moreover, the epistemological aspect of philosophy of deception stresses the claims, justifications, beliefs and truth-values of the matter in relation to avoiding deceptions. Philosophy of deception as an approach to epistemology inquires how, when, where and what deceptions can be avoided. "Belief" is an incredibly important aspect in this regard, and has been described here greatly in relation to *desire*.

However, "desire" is often overlooked by psychologists, and in relation to sarcasm *desire* has functioned in various manners explained within this dissertation, including: (1) the evolution and sexual selection of sarcastic reason within our species; (2) the desire of the expresser to sarcastically respond or confront some interpreter or

interpreters; (3) the disgust or desire of these interpreters after the instance of "biting sarcasm"; (4) the interconnections amongst all of these desires with one another (i.e., including meta-desires or desires about desires); and (5) the plethora of beliefs about desires that are descriptive of the communication of sarcasm within some conversation, for instance.

There are philosophical problems in virtue of the latter phenomena (e.g., what is belief and desire? In what ways are our descriptions and measurements of them accurate?). There are problems to be sorted out within the field of psychology concerning the analysis of mental states made by the expresser, interpreter and some third party observing (e.g., How can some third party reduce the amount of error and attain knowledge of the mental states of the expresser and interpreter?).

The relationship between the latter three parties, descriptions given by each of them and the "excluded experiencer problem" pose certain philosophical challenges in addition to complications concerning the creation of innovative social cognitive techniques, which have been explicated within this dissertation.

These challenges are reasons why a logical approach and systematic categorizations of experiments within the Belief-Reality-Desire framework are necessary in order to understand the intricacies of sarcasm and irony in virtue of their statuses as higher order meta-recognition skills, attributions of higher order meta-beliefs and meta-desires (i.e., desires about desires) and their instantiations, roughly approximated by psychologists.

Varying levels of consciousness and higher order cognition have been reevaluated from the perspective of the belief-reality-desire cubic triad and the importance of

hallucinations and illusions in regard to potentially inducing them for the purpose of describing the mental contents of other species from a third-person perspective. Grades of consciousness have been explained in terms of ToM skills, although the latter chapter concerning ideologies has concluded that individuals can be incorrect about first- and third-order mental attributes and nonetheless be correct about second- and fourth-order beliefs and desires, for instance. These facts complicate psychological research.

The inclusion of a very basic historical and developmental analysis of ToM research in relation to first-, second- and third-order false belief tasks, desire-temptation paradigms et cetera—serves as a background by which more developmentally sophisticated and complicated techniques can be implemented with adolescents (i.e., ages 10 though 22 years).

Moreover, understanding the intricacies involved within the successful interpretation and recognition of sarcasm and the instantiation of fourth, fifth or even higher orders of ToM may give new insights about the role ToM within children under the age of 2 or 3 years of age—in these cases desires are inferred from the duration of the gaze of an infants' eyes directed at particular objects and persons, for instance, and in comparison to other people doing different tasks (Frith & Frith, 2003). In short, the development of social cognitive skills from the age of three months to adulthood has been described here with the determination that sarcastic and ironic reason is at the top of this social cognitive hierarchy and which develops last.

The neurophysiology and cognitive aspects of mentalizing involved during the interpretation and recognition of sarcasm is only one facet of sarcastic reason. A sociological analysis of sarcasm must include sexuality, politics, economics, religion,

science, law, philosophies and other important factors within social networks so that sarcasm may be viewed as greatly impacting our approaches within the context of society.

Peter Sloterdijk's critique of cynical reasoning has been used as a background by which sarcasm can be understood within the context of a developed society in which freedom of speech and action are instantiated to a great extent. If an ideology is interpreted as a system of thinking in which its advocates propose and encourage particular manners of behaving for a particular group that espouses the ideology and others, it benefits the sociologist, anthropologist and philosopher to examine ideology in relation to legal and illegal actions as well as socially acceptable and unacceptable behaviors in their distinct differences according to various ideologies.

As a categorization and set of beliefs, ideas, and attitudes *ideologies* shapes our veridical and illusory, hallucinatory, or delusional understandings (i.e., misrecognitions) of the world, especially within the political, social and economic sense, and by doing so certain groups and institutions to which individuals belong are *justified* in their actions. The aspect of "attitude" functions with alterations of ideologies during the instantiation of "biting sarcasm." The usage of the word "ideology" probably dates back to at least the late 18th century in a book by Destutt de Tracy titled *Elements of Ideology (Eléments d'idéologie*, 1796), but its contemporary usage is derived from Marx and Engels' *The German Ideology* (1845).

The term "hegemony" and its importance in relation to ideology has been explicated, and these ideas have been influenced by the early 20th century writings of Antonio Gramsci's *Prison Notebooks* in which a "hegemony" is distinguished from the

"dominating powers within society" to the extent that when the ruling class has lost its influence and consent from the people, this group is not leading but only dominates via coercion, which results in the loss of the traditional ideology within the society.

Political sarcasm, in this sense, functions to change and challenge the attitude of the people in order to promote change and bring about recognition of some types of coercion via uncovering the aspect of the ideology of the hegemony that deceives others into supporting the hegemonic powers against their own best interests.

An analysis of the structure of ideology has been presented within this dissertation in relation to law and social acceptability. It has been maintained that the most important ideology is the ideology of the hegemonic powers since the hegemony controls two major aspects of the very structure by which other ideologies can be categorized, namely, the legal but socially unacceptable and the illegal but socially acceptable behavioral categories for some society. The expense of this latter fact is the great risk of civil unrest, if the hegemony cannot produce representatives that perpetuate their ideology by deceiving other individuals into supporting it against their own interests.

The actual use of kynicism as a response to the dominating powers (i.e., the US invasion) within the Iraqi society has been offered as an example in which the ideology of an Iraqi journalist clashed with the ideology of President George W. Bush, but the incredibly insulting intentions behind the journalist's expression of disgust toward the US president were overlooked by those who were ignorant of the interpretation of throwing a shoe within the Arab cultures.

The US may have entered Iraq within the intentions of establishing hegemonic influence (i.e., in relation to moral, intellectual, democratic and ideological influence),

but the role of kynicism and promotion of it by the Iraqis who applauded their journalist as a "hero" demonstrates both a lack of hegemonic influence from the US entities within Iraq and suggests that they are interpreted by certain Iraqi people as a coercive and dominating force within Iraq. Kynicism has been offered as a type of response to philosophical ideologies as well, which may function as a means toward publicizing the mundane, impractical and erroneous aspects of certain philosophies.

Sarcasm has additionally been argued to function similarly to kynicism as a method of critique along with the presence of a negative connotation presented during its expression. Sarcasm often comes in two different forms: (1) rehearsed; and (2) spontaneous, which has been more thoroughly explained in psychology in relation to lying. Thus, arcasm deserves future examination, which can be especially beneficial in relation to comparative studies of lying and sarcasm (see chapter II.vi). Two more important political examples within the largest political economy have been offered as important instances of sarcasm amidst publicly available exchanges of ideas and monologue. The frequency and extent of the affects of such sarcasm remain unknown, and this is the task for sociologists, social and political philosophers and social psychologists to determine.

It was argued that sarcasm acts as a "biting" rejoinder to the irrationality expressed by the hegemonic powers and their representatives, which is often accompanied by a despondent cynicism. Sarcastic expressions are able to function in this fashion through a range of modern media outlets, such as the internet, television, and magazines via satire and comedy.

Sarcasm often entertains observing third parties, and sarcasm acts to remove the

false consciousness associated with cynicism in which coinciding skepticism and pessimism have become irrational at the detriment of enlightenment. This false consciousness is or is derived from a lack of realization about the historical situatedness of the individual within some geographical location and time period and within a society with which he or she is historically unfamiliar.

Furthermore, it has been ascertained that the way in which sarcasm functions to remove false consciousness is largely via expressing some of the same ideological jargon as the hegemony with a completely different attitude toward the hegemony's statements than their representatives. In this manner sarcasm functions as a technique which not only changes the attitudes of the masses who have been deceived into espousing the hegemony's ideology against their own interests—sarcasm changes their beliefs, attitudes and ideas and forces the hegemony to alter its treatment toward certain actions and individuals (i.e., legal or illegal and socially acceptable or unacceptable ones) or to risk social upheaval and civil unrest, which is the expense of the hegemony's inaction.

Interestingly, philosophically oriented claims are prone to the same attacks via sarcasm, which similarly functions to criticize philosophical theories, principles, and advocates of those principles with an amazingly great challenge to those theories. This challenge involves the very attitude by which one should express his thoughts and words toward a philosophy, positive or negative. For if the sarcastic expresser repeats the very ideological jargon of the philosophy, paying quite close attention to precisely representing the philosophy, but expresses it with contempt in his tone and sneering gestures, then those philosophers who advocate the philosophy are posed with the problem of explicating why they approach their philosophy with such a positive attitude,

a lack of doubt, sincerity and seriousness.

Once the philosopher inquires about such attitudes, the importance of the philosopher's philosophy is tested and questioned in possibly a more significant sense than whether the philosophy is *internally consistent* (i.e., lacking contradictions), *comprehensive* (i.e., explaining all of the relevant elements it aims to explain) and *concise* (i.e., leaving out unnecessary items and ideas and being brief in relation to what its goal is to explain).

This "importance" is the very attitude of the philosopher toward his or her own philosophy, which is tested via skeptical doubt, leading one to ask whether one wants to live with such a philosophy or for how long one will advocate it before another one is espoused. Likewise, kynicism may function in such a manner when a kynic intelligently restates the ideological jargon of the philosophy for which he holds contempt and includes the additional fart, belch, induces vomiting or masturbates as a retort to the less desirable and believable aspects of the philosophical ideology.

The ideological structure of religious, scientific and philosophical groups and their beliefs is described within the final section of the third chapter in virtue of four categorizations of actions, which are either possible or impossible and physical or logical. The stance called "physicalism" is well-supported in virtue of the fact that logical possibility (LP) is merely a cognitive and epistemological categorization that involves an undecided nature, which is descriptive of at least some individual's psychological properties because "(LP)" means "either physically possible (PP) or physically impossible (PI) and not both and not logically impossible (LI)."

Since we may properly categorize this in accordance with the beliefs within

chapter II, we formulate logical possibility as:

$$(LP) = ?((PP) \vee (PI)) & (\sim((PP) \& (PI)) & \sim(LI))$$

The "?" indicates that the individual is undecided about whether some event or object is physically possible or physically impossible, although the individual realizes that one cannot be both and that the event or object is not logically impossible. Physical impossibility functions similarly:

$$(PI) = ?((LP) \lor (LI)) & (\sim((LP) & (LI)) & \sim(PP))$$

Likewise, the individual can be described as having an undecided nature, but in this case the indecisiveness is in relation to whether the object or event is logically possible or logically impossible.

Since the indecision of a psychological agent is not sufficient for categorizing the actual status of an event or object, and because only two categorizations are left, we have only physical possibility (PP) and logical impossibility (LI) by which we can categorize objects and events. A more detailed description of these two categories as psychological, metaphysical and ontological categories, which is described in this dissertation, further supports physicalism.

However, there are still mistaken categorizations to be dealt with in relation to physical possibility (PP). It is argued that when two similar events take place in which one is faster than another (or some object is bigger than another) a form of mathematical and logical reasoning is instantiated and causes one to categorize all events in between the two speeds (or objects in between the two sizes) as "(PP)," regardless of whether or not an instantiation of the event (or object) ever occurs.

It was further argued that an event or object is not (PP) if it was not, is not and

will not be instantiated, so it must be therefore (LI). Thus, mathematical reason is often applied within inappropriate situations, which result in false or fictitious conceptions of possibility advocated within some ideology. Logic functions similarly and is related to mathematical reasoning, so it likewise involves the risk of faulty applications.

Sarcastic reason, unlike many applications of mathematical reason, functions to eliminate faulty ideological options via changing the attitude toward the logical expression of the status, categorization and set of circumstances of which the event or object is part. The reason for this attitudinal change involves the affective aspect of sarcastic reasoning (i.e., generally resulting from greater activity within the right hemisphere of the brain, especially the ventromedial prefrontal cortex) as opposed to the non-emotional and analytical aspects of mathematical and logical reasoning (i.e., generally the right hemisphere has less activity during mathematical and logical reasoning than when sentiment is concerned).

Overall, this dissertation has analyzed sarcastic reasoning from the perspective of the expresser, interpreter, recognizer and within the much larger context of society. A micro-perspective has been developed in which sarcasm is illustrated to play a significant role within neurology and MRI studies, especially in comparison to lying and truth-telling.

Moreover, the *ethics of sarcasm* (i.e., its usages and interpretations) can now be considered after a reflection upon the utilization of sarcasm within the medical profession as a diagnostic technique. It appears obvious that the instantiation of sarcasm within certain hospital setting is ethical. Sarcasm functions socially and morally as a political tool for progressive political and economic reform, but sarcasm also involves types of

cruel and wounding insults that are not at all deserved by the innocent recipient. Thus, ethical, unethical and amoral accounts of sarcasm should be cautiously examined and published.

Sarcasm has been analyzed as a higher form of consciousness and metarecognition. Sarcasm, irony and satire are involved in *metaphysical reasoning*, such as in
the case of Voltaire's *Candid* in response to Gottfried Leibniz's notion, plausibly
interpreted as "absolutely absurd" by Voltaire, that the omnipotent, omniscient and
omnibenevolent God could have only created and did only create the "best of all possible
worlds" in which we live.

Sarcasm raises new challenges for logic because it raises issues about how exactly a logical statement should be attitudinally expressed, which can change the entire meaning or just slightly alter a part of the idea. Examinations of sarcasm in comparison to lying, for example, raise inquiries concerning the concept of deception coupled with the expression of a deliberately false statement.

Sarcasm is, however, largely an epistemological and aesthetic matter since it involves both the aspect of beliefs in relation to the knowledge of at least an expresser and interpreter and the desires, disgusts and neutral feelings toward speech, writing and language as a matter of aesthetics and beauty. Sarcastic reason thus deserves a thorough philosophical and multidisciplinary examination as a type of reasoning that extends into the realms of all branches of philosophy.

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Summary of Dissertation

of PhD. Candidate,

William Allen Brant III

Title:

Critique of Sarcastic Reason:
The Epistemology of the Cognitive Neurological
Ability Called "Theory-of-Mind" and Deceptive Reasoning

Preface to the Priority of the Problem of Sarcastic Reason

The preliminary investigation concerning the problem of a critique of sarcastic reason establishes that there are three common prejudices that have hindered the development of a critique of sarcastic reason and which are dispelled as entirely unreasonable. A critique of sarcastic reason is demonstrated to be philosophically, sociologically and psychologically worthwhile and important. The three prejudices are as follows: (1) sarcasm is cognitively the lowest form of wit; (2) sarcasm is morally the lowest form of wit; and (3) sarcasm is philosophically insignificant.

Sarcasm is argued to be, contrary to the first prejudice, one of the highest or most advanced levels of a type of reasoning known as "theory of mind" (ToM) or "folk psychology," which is a form of social cognition by which the expresser (e.g., a sarcastic expresser) attributes beliefs, desires, disgusts, doubts etc. to some interpreter (e.g., a recognizer of the sarcasm) who understands, for instance, the following higher level meta-beliefs: (I, the interpreter, believe) the expresser does not expect me to believe that what the expresser expressed is what the expresser believes. Thus, in regard to the practice of ToM (i.e., the attribution of beliefs) sarcasm is quite sophisticated, and the instantiation of sarcasm is continually experienced to involve the development of meta-meta-meta-beliefs.

The neurological studies that have analyzed sarcasm are described asymmetrically since there has been a significant research focus upon the recognition and recognition skills developed by healthy preadolescents and those with disorders who never develop the skills involved with sarcasm recognition (i.e., attributing beliefs and desire or disgust to others and recognizing their actual attributions as opposed to their non-literal attributions) and lost recognition abilities of sarcasm as a result of brain damage and other disorders (e.g., fronto-temporal dementia FTD).

The second prejudice that regards sarcasm as the morally lowest form of wit since it is insulting, offensive, and it is meant to be very unpleasant to those to whom it is directed; moreover, sarcasm can be misinterpreted, which may make the group or person to whom it is directed look very ignorant or unintelligent. Thus, it would seem *prima facie* that sarcasm is not something that should be used.

However, psychiatrists and other medical workers have been using sarcasm in order to determine whether patients are likely to have FTD. That is, sarcasm is used as a diagnostic tool for a known disorder because those inflicted with FTD begin to lose their abilities to recognize sarcasm. Furthermore, diagnosing diseases early could allow the prevention of further abilities being lost. Therefore, there are moral usages of sarcasm.

As a form of expression and interpretation, sarcasm can be instantiated via the visual sensory modality, tactile (e.g., Braille) and auditory senses. However, the recognition of sarcasm requires awareness via all sensory modalities, including olfaction, taste, balance, direction etc. The recognition requires, of course, an interpretation of the literal language and awareness of the surrounding or context (i.e., roughly a true description of reality or a description of reality that does not match the so-called literal meaning of the expression) in order to recognize a contradiction (i.e., a contradistinction between what is expressed and the state of affairs).

Researchers have suggested from comparative brain damage studies and MRI research that the context and sarcasm recognition abilities seem to require right

hemisphere's ventromedial prefrontal cortex. However, studies concerning neuroplasticity and neurogeneration suggest that the specific location in not so important but rather the complexity of the networks of neurons are necessary, although these functions tend to be located in the aforementioned region; this similar to the fact that the necessary neurological region for the function of the expression of language tends to be located within Broca's area.

There are counterexamples (e.g., children who learned to express language and were born without Broca's area), and these counterexamples are argued to refute the Cartesian mechanistic view of the brain having functional areas that are necessarily located in such a machine-like manner that if they are destroyed, then the functions will be forever lost. This strict Cartesian view of the mechanistic brain is proven to be false, and this suggests that sarcasm has a role in relation to the rehabilitation of lost functions once it is learnt through practice. The rehabilitation of lost functions gives us another moral reason to express sarcasm. Thus, the second prejudice has been refuted.

Research concerning sarcasm comes from multifarious disciplines developmental psychology, aging and memory, cognitive and social psychology, psycholinguistics and neurology, although there has never been a philosophical critique of sarcastic reason. The variety of fields involved with sarcasm, the brain functions requisite in order to recognize sarcasm, ToM skills practiced, and the fact that the ability to recognize sarcasm is lost before the abilities to, for example, recognize metaphors and similes, demonstrates that sarcasm recognition is one of the most advanced forms social cognition. Hence, the first prejudice that sarcasm is cognitively the lowest form of wit is totally ungrounded.

The term "sarcasm" has an etymological history of at least 2,000 years and remains similar to its ancient Greek equivalents (i.e., sarkasmos, a sneering, jesting, taunting and mocking, and sarkazein, which is a ripping and tearing at the flesh). The word is related to the ancient meaning of sarcophagus (i.e., flesh-consuming stone), retaining the notion of being "biting" in relation to its insulting nature.

The complexity of neurological functions, ToM skills and conversational sophistication that gives us sarcasm does not yet allow us to gain any insight into the sociological functions of sarcasm that affects society and the international community. Sarcasm is described as playing a role such that some criticized group G can be negatively portrayed and insulted without G having the ability to retaliate. The inability for G to retaliate is reasonable since the nature of sarcasm (*very roughly* as the expression of what one obviously disbelieves) is such that expresser cannot be given a well-argued response that takes into consideration what is meant by the sarcasm since it would be doubly offensive for G.

The phrase "biting sarcasm" denotes the exposure of the unprotected skin of the criticized ideology, the ripping and tearing through the skin by the sarcastic expresser in order to surgically remove the sarcoma-like ideology, which is a false consciousness or a lack of historical awareness. The most effective ideology is the hegemony's ideology within the society, which shall be later demonstrated to consist as a contrast between legislative decisions concerning legality and societies categorization of legal and illegal act; the most important of which are the legal and socially unacceptable actions and the illegal and socially acceptable actions for which the hegemony deceives the vast majority of the society via ideology and against which sarcasm serves as an effective manner by which the unreasonable contrast between the hegemonic power's ideology and the

masses is exposed.

The importance of sarcasm, historical and cultural significance are described within the preface, and the dissertation is outlined in the following manner: (1) sarcasm is described in the first chapter in relation to a theory of mind and brain such that the individual is analyzed; (2) sarcasm is described in relation to a two person model that incorporates the notion of deception within the two person model; and (3) sarcasm as a sociological phenomenon is analyzed, and the metaphysical benefits of the instantiation of sarcasm are described in respect to logical and physical possibility and impossibility.

I. Introduction to Theory-of-Mind and Sarcastic Reasoning

Philosophy of mind is described as an intense investigation of the most highly organized functional structures in the universe and in relation to any environment; these functional structures are brains. Six assumptions are presented, which describe both contemporary philosophy of mind and the assumptions made within the scope of this dissertation. First, we have minds and bodies (i.e., solipsism is presumed to be false, for example). Second, an individual's mind and body function together in various ways. Third, our bodies are physical and publicly observable. That is, bodies are made of matter and are extended within space. Fourth, we have mental lives that merely seem to be private in multifarious manners. Fifth, you and I have a sort of "privileged access" to the contents or information of what we call our own minds. Finally, our minds evolved with our central nervous systems via certain selection processes.

Out of the six latter assumptions the fourth presumption is the weakest, and it is described in relation to MRI research such that brain scans are enabling scientists to ascertain whether it is probable that an individual is lying and to predict choices made by subjects up to ten seconds before the subjects are conscious of their choices, although these are very simple options preselected by scientists. Thus, technological advances and attention to the neurological activity of an individual gives us reason to be skeptical about the assumption that our mental lives appear to be private.

The philosophy of consciousness and its evolution are described in this chapter as having two interconnected evolutionary and imperceptible sliding problems of development by which the consciousness, in the midst of a first individual, originates and consciousness develops. The first sliding problem is quite well-known since it is presumed to be an aspect of all of our cognitively complex minds; this is the sliding problem into consciousness that takes place somewhere between when we were fertilized eggs and our development into adulthood.

The question is at what point consciousness comes into the picture (i.e., a minimalist view of consciousness). The other minimalist view of consciousness involves a different sliding problem. At which point in the evolutionary history of species did consciousness arise from the evolution of single-celled organisms to fish, amphibians, reptiles, mammals and birds?

The second question is answerable to a certain extent before the first question since one or more organisms were birthed by some parent which was not a conscious organism, and this organism or the siblings became conscious. Moreover, the importance of adolescence is again stressed here since the first conscious organisms were probably not conscious before adolescence (i.e., adolescence, as an important stage of hormonal

development, is described in the preface as being the stage during which sarcasm is recognized without a cue or signal (e.g., rolling eyes or sarcastic tone), and the expression of sarcasm is hypothesized to be a testing of the borders of adult conversation in order to assess how cheeky adolescents are allowed to continue to be).

The philosophical problems interrelated to the sliding problems concern both a lack of methodology for the systematic measuring of whether an organism is experiencing something from a first person perspective and the inability to agree upon a state of minimal consciousness that can be applied methodologically. It is hypothesized that the first experience was an experience of pain that evolved via natural selection since sexual organs and sexual reproduction amongst animals did not evolve until long after pain would have been beneficial for survival and reproduction of organisms and species and since pain can be associated with every single sensory modality.

On the contrary, it is argued that the ability to utilize sarcasm was brought about via the processes of sexual selection coupled with natural selection to the extent that females have chosen the mental characteristics that are phenotypes or expressed by humankind since they are involved within the utilization of social meta-cognition (e.g., the recognition of sarcasm involves the interpreter cognizing that the expresser disbelieves what the expresser expressed). Thus, sexuality is illustrated to serve an important role in the development of sarcasm, and sarcasm is important as a type of conscious experience. The importance of consciousness within this analysis concerns the understanding of a range from the sliding problems of the development of consciousness (i.e., the minimalist view) to the highest levels of consciousness in relation to social cognition (i.e., sarcasm in virtue of the ToM meta-attributions practiced). Sarcasm at this point has been argued to be the highest level of consciousness about which ToM experimental methods have not been able to measure.

Conscious experiences are categorized as hallucinatory, illusory or veridical. The induction of hallucinations in other species would entail that they are conscious at least in relation to the sensory modality through which they hallucinated because if the individual is aware of something illusory or a hallucination and behaves according to the illusion or hallucination rather than the real environmental conditions, the individual probably has acted in accordance with a type of mental content and intentionality (i.e., in the Husserlian sense) of which it has a privileged access and a first person experience.

The induction of hallucination and illusions within the minds of other species would allow an understanding of phenomenal consciousness to develop such that comparisons could be made between the phenomenal visual conscious experiences of birds and bees (i.e., iff they occur) and the evolutionary history of consciousness, which would allow us to understand the geographical conditions during which consciousness evolved. The concept concerning the induction of hallucinations and illusions in respect to a methodology for measuring behaviors related to the hallucinations and illusions is the very same as that which Daniel C. Dennett in 1978 created and which later developed into techniques called "false-belief tasks" within the field of social cognitive psychology.

The first false-belief task, which met Dennett's criteria (i.e., placing a subject under the condition that the subject is compelled to think that another individual has a false belief, which changes the prediction of the latter individual's behavior that is expected to follow on the basis of some desire) was conducted five years later. For instance, a boy named Maxi has some chocolate that he places into a blue cupboard.

After Maxi leaves the room his mother walks into the room and places the chocolate into a green cupboard. Maxi returns to the room in order to get his chocolate; this is the setting in which subjects between the ages of three and six generally watch in the classic experiment of Perner and Wimmer in 1983.

The questions the children are asked include a belief attribution question, where does Maxi believe the chocolate bar is?, and an action prediction question, where will Maxi go to get the chocolate bar? Typically, questions about the reality of the situation are asked, such as the following: where is the chocolate bar? Where did Maxi place it?

Generally, children who are three are unable to answer the belief-attribution and action-prediction questions correctly. Most four-year-olds answer the latter questions correctly, and it is quite easy for five and six-year-olds, unless the children have some sort of disorder, such as autism.

Understanding Dennett's criteria enables us to measure the attribution of false beliefs. Moreover, this type of experimentation could not, in principle, yield useful data for scientific measurement if the false belief were not implied within the experimental setting. The reality-belief-desire triad is thus crucial in a contrastive manner. Furthermore, this is the same principle by which a minimal level of consciousness would be tested via techniques that would instantiate hallucinations and illusions within the minds of other species, such that the individuals would act in manners that are actually less favorable for them, like Maxi if he would return to the cupboard that he last placed the chocolate, on the basis of the hallucinations.

Since 1983 the development of ToM experimentation has reached a sophistication level for techniques that enable the measurement of beliefs about beliefs about beliefs (i.e., meta-meta-beliefs). To demonstrate some of the consequences of the experimental data, the development of various ToM abilities are described from the age of three months to approximately the age of six. A comparison between lying and sarcasm is made, and it is illustrated that the expression of lies occurs as early as three years old with a strong sophistication level by the age of six in regard to *semantic leakage control* (i.e., liars must control what is said in such a manner that it is all consistent with the central lie), whereas the expression of sarcasm occurs much later, and the recognition of sarcasm occurs much later than the recognition of lies.

The latter is the case probably because the contrast between what is expressed by a lie and what is true can be recognized and/or the best interests of the liar can be recognized in order for one to suspect a lie. However, sarcasm is structurally more complicated since the expresser is generally making claims about what the expresser is expected to disbelieve. Furthermore, sarcasm without a cue or signal entails that these disbeliefs are expressed just as if they are assertions of beliefs. These latter recognition skills are the issue here, they involve some form of mind-reading, and they function upon the same principle of negation as false-belief tasks and the induction of hallucinations in order to assess minimal levels of phenomenal consciousness.

The feeling of the immediacy of the conscious experience of the recognition of sarcasm in either the interpreter or expresser is significant since it would entail that the cognition skills concerning the attributions of multi-meta-beliefs are vastly more sophisticated during these intervals of time and which could and should be measured neurologically. The measurement of the experience of the expression of sarcasm is hypothesized to follow the same formation within neurological research as it does with

the expressions of lies since there is assumed to be a major difference between the rehearsal followed by the expression of lies and sarcasm and the spontaneous expression of lies and sarcasm. However, the recognition of sarcasm is the central issue, which might even be more easily measurable under the conditions of the MRI, for instance, than the recognition of lying. The goal here is to have a contrast and range of levels of consciousness at which certain recognitions of multi-meta-beliefs after the expression of sarcasm are the maximum levels of consciousness.

The social cognitive psychology techniques have not yet reached advanced enough levels in order to measure the recognition of sarcasm. Philosophy of mind in this sense has served (e.g., with Dennett in 1978) and must continue to serve the purpose of providing theoretical frameworks through which experimental techniques are designed and conducted. So, philosophy of mind as a field of study is necessarily interconnected with particular fields of psychology, which is social cognitive psychology and neuroscience in this case.

Thus, an experimental technique is designed by which meta-meta-beliefs can be measured, although this experiment involves the implementation and encouragement of lying in a very strange way that resembles the structure of sarcasm. The aspect that it resembles in regard to sarcasm is that the psychologist expects for the subjects to that he disbelieves what he claims.

The experiment is a temptation resistance paradigm that is based upon experiments designed by Victoria Talwar and Kang Lee during which each subject is given the opportunity to disobey the psychologist and then to lie to her (i.e., by peaking at a forbidden object and then claiming not to have peaked. They do this in order to win a prize if they guess correctly without peaking). The lie in this case is spontaneous rather than rehearsed, and most of the subjects have been illustrated to lie after they disobey the psychologists' demands not to peak at an object on top of a table.

Moreover, the psychologists allow the children to tell a whole web of lies related to their so-called guesses of the object at which they were forbidden to peak. The experimental paradigm is slightly altered by Brant by allowing the psychologist to tell what is *prima facie* a lie from the perspectives of the subjects. Once the psychologist have allowed the child to tell a whole web of lies related to his or her so-called "guess" about the object lying on the table, the psychologist intentionally speaks falsely by saying that the so-called guess the child has made is incorrect since another object was laid upon the table when the child made his or "guess."

The complexity of the paradigm designed by Brant demands the following advanced levels of ToM belief attributions on the basis of the temptation for each child to win a prize: Each child believes that the psychologist does not know that the child is lying (i.e., the false belief), and once the psychologist speaks falsely, then the child believes that the psychologist is intentionally saying something false (i.e., the intention of the psychologist for the child to believe this, which resembles sarcasm) because the child knows which object lies on the table, but the child does not know that the psychologist believes that the child believes that that psychologist disbelieves what the psychologist says (i.e., the instantiation of a meta-meta-belief with the characteristics that allow measurement, according to Dennett, iff the child answers appropriately).

The importance of this paradigm is related to the highest levels of ToM and conscious awareness that are actually measurable and thus statistically analyzable. This

paradigm does not allow the experimenter to ascertain each time a child is able to form what is accurately described as a "belief about a belief about a belief," but it would allow them to assess the age group, on average, during which the development of such ToM abilities is possible and probable. That is a form of social intelligence that is not measured currently. The complexity of the recognition and expressional, sarcastic exchanges between two partners is illustrated at the lowest level that describes a single sarcastic comment and the logical relations between the interpreter and expresser in regard to recognition since the expresser (E) places him or herself in the situation to either recognize (r) that the interpreter (I) recognizes (r) the sarcasm or non-literal wording (w) (i.e., ErIrw), or the expresser is undecided about whether the interpreter recognized his or her non-literal wordings (i.e., ?(ErIrw v ¬ErIrw)), or the expresser does not recognize that the interpreter recognizes the sarcasm, for instance (i.e. ¬ErIrw).

Thus, a new logical symbol is used in order to explain the multi-level belief attributions of the two conversation partners in regard to the undecided or indeterminate nature of certain aspects of the conversation (i.e., "?" represents the undecided facets). This logic of recognition within chapter two is explained in relation to answers to Ludwig Wittgenstein's philosophical questions raised within his later work titled *Zettel*.

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This chart above represents just one-third of the first level of logical possibilities in relation to two conversation partners having the most rudimentary understanding of sarcasm or the expression of non-literal language. The following two charts within the dissertation are different to the extent that the interpreter does not recognize the sarcasm (i.e., ¬Irw) or the interpreter is undecided about whether the expresser is being sarcastic or expressing non-literal wordings (i.e., ?(Irw v ¬Irw)).

II. The Philosophical Psychology of Deception

The beginning of chapter two illustrates the dense history regarding the concept of deception, which predates those philosophers referred to as the Presocratics, such as Thales, Anaximander and Diogenes. The earliest ancient thinker to discuss the role and ethics of deception is Ptahhotep (i.e., roughly 2,500 BCE)who wrote a series of maxims to his son. The history of deceptive reasoning is illustrated to be so dense before the Common Era that it deserves further analysis.

Whereas the first chapter illustrated comparisons between lying and sarcasm in respect to neurological and ToM research, this chapter argues that deception is a broad concept that encompasses lying, exaggeration, understatement and sarcasm. A "deception" is characterized as either *that which deceives* or *that which is being deceived*; the former deception is an act, whereas the latter is a condition about which is descriptive of sarcasm, especially when it is expressed without a cue. Namely, sarcasm is deceptive language when it is expressed around or directly to preadolescents and anyone who is not well-versed in this manner of, for instance, speaking falsely.

Philosophy of deception is argued to be a viable field of philosophy that deserves much emphasis since, like metaphysics, it would include conceptions of what could be the case, and what appears to be the case and the reality of the matter coupled with a notion of skepticism since deception denotes the misleading appearances, such as hallucinations and illusions. Furthermore, philosophy of deception would be a type of epistemology as well, which categorically separates acts that we know from those we do not. Because if the latter were not the case, then how and why would some act be referred to as a "deception" if all acts were maintained to be deceptions?

The philosophy of deception suggests something that is not necessarily always an aspect of epistemology, which is the fact that beliefs, disbeliefs and undecided beliefs are coupled with desires, indifference and undesirable or disgusting aspects involving the status of reality. For instance, if I believe that a cat is under the table, then I either desire for it to be there, do not want it to be there, or I am indifferent about the matter, or perhaps I have a horrible cat allergy, and I am disgusted by the very thought that it is underneath the table, despite the fact that the cat is outside.

The significant aspect to consider both in philosophy of mind and social cognitive psychology in respect to ToM experimentation is that there are no demarcation criteria that allow us to separate the concept of belief-desire-consciousness and the reality of the matter or what is at least considered to be real. There are nine different categories that describe the belief-desire-reality triad in respect to any matter of fact that is considered by a mind. These twenty-seven categories play a role in relation to the interpretation of sarcasm and any recognition of non-literal expressions.

Out of the following twenty-seven categories Brant has ordered them into (1) through (9). (1), (5) and (9) should be avoided in regard to the conduction of ToM experimentation, whereas the other six categories must be used within an explanatory framework so that an interconnected understanding of ToM in respect to beliefs and desires is understood.

	(R) Reality	(F) Fiction	(i) Indeterminate
	(1) Desirable	(2) Desirable	(3) Desirable
(B) Belief	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain
	(4) Desirable	(5) Desirable	(6) Desirable
(D) Disbelief	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain
	(7) Desirable	(8) Desirable	(9) Desirable
(U) Undecided	Undesirable	Undesirable	Undesirable
	or Uncertain	or Uncertain	or Uncertain

These categories allow ToM experimentation to be placed within (1) through (9), which would demand various different ToM techniques in order to measure data from subjects who give answers within these categories. The determination about whether or not something is desirable, undesirable or whether the subject is uncertain about it should be determinable within the methodology. For instance, the "temptation resistance paradigms" assume that some object of interest is desirable, but this is not explicitly analyzed, although it serves to drive the behavior, and conclusions about beliefs might bring about mistaken conclusions concerning the understanding of desire and its development.

The importance here is that actions are predicted on the basis of making assumptions about others' beliefs and desires. Moreover, people generally perform acts since they have beliefs that those behaviors will gratify their desires. Despite the importance of a interconnected understanding of belief-desire-action in relation to predictions, there is a tendency within the field of epistemology as well as within the field of social cognitive psychology to ignore the satisfaction of desires in relation to beliefs.

Although the importance of the concept of belief has been stressed in relation to definition of "knowledge" and has resulted in various research projects, the emphasis here is upon the measurement of beliefs within the experimental setting. In the latter sense false-belief tasks (see page six) would be compared to second- and third-order false-belief tasks, which would enable us to better understand a range or scale that describes "belief," but this also must be related to desire, temptation, disgust and the like.

Psychologists and philosophers need to understand that the very state that allows the subject to pay attention to the experiment is, in some sense, a state of interest because otherwise the subject would think about something else, do something instead of the experiment, fall asleep or not pay attention, for example. So, within the false-belief task concerning Maxi and the chocolate bar, there are assumptions that are being made already about the satisfactions of desires by both the psychologists and the subjects before the subjects are able to attribute to a false belief to Maxi.

One assumption is that it is not unpleasant for the subjects to watch this scenario being played out, and another assumption is that it is interesting enough for the subjects to pay attention, which are assumptions that adult psychologists have made probably because they are somewhat interested by the situation, although there is no measurement given in regard to how interested the preadolescent subjects are. Moreover, an explanation why three-year-olds typically answer belief-attribution and action-prediction questions incorrectly is that three-year-olds utilized a desire-heuristic (i.e., Maxi will go to the place where the chocolate bar is because he desires it), whereas older children use a more complicated desire-belief-heuristic (i.e., Maxi will go to the place where the chocolate bar is since he desires and if he believes it is there). Theorists argue that three-year-olds have both heuristics, for instance; however, they tend to use the simpler one more often.

One theoretical problem in relation to ToM and behavior is that despite the fact that an individual wants something S and believes that S is attainable if he or she behaves in a certain way, the individual might not act in accordance with attaining S. This is a logical possibility, but it is improbable, and, interestingly, no appeals to other minds would work in accordance with explaining this sort of occurrence. For instance, we could claim that others do not want the individual to attain S because it would be negative for them since this would amount to a reason for the individual not to want to attain S. This negates the attribution of the concept necessity in regard to ToM explanations since knowing exactly what one believes and wants does not entail that one must act in a certain manner.

At this point within the dissertation a problem of description is explained in regard to the excluded describer (i.e., many of the problems of description would disappear if the describer were also described). It is argued that Philosophy of Deception could be characterized as encompassing both the study of possible worlds because deception involves what could possibly be or what could be accepted as being the case (i.e., metaphysics) and the study of knowledge (i.e., epistemology). Philosophy of deception would more appropriately change the focus of epistemology from a developmental perspective by asking, "how do we avoid deceptions?," rather than "how do we attain knowledge?" The focus upon deception more accurately describes the process of coming to know something since we develop from infants who do not attribute the characteristics of continuity and constancy to objects, for instance.

Moreover, the five traditionally branches of philosophy (i.e., metaphysics, epistemology, logic, ethics and aesthetics) are arbitrary to the extent that other focal points could encompass what the traditional branches cover, and some examples of these include: the philosophy of organization, philosophy of cleanness⁷¹, philosophy of expression (e.g., of logic), philosophy of interpretation (e.g., of logic) and the philosophy of deception, for instance.

Several different types of atypical deceptions are described. For instance, a notion of a lie that only involves a true statement is given. That is, if one disbelieves that S is the case, and expresses S just as if it is true with the intention to deceive another,

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^{71 &}quot;Philosophy of cleanness" is considered to be the least obvious possible branch of philosophy, so it is described here for that reason. Cleaning involves moving or removing and organizing or reorganizing things in some area. With nanotechnology cleaning involves removing all particles from the laboratory so that nanostructures are not destroyed, say, by some floating particles. Cleanness involves the air, water, and our bodies, burning materials, heat, medicine, hospitals, space ships and anything with which we come into contact. Philosophy of expression involves all language as well as facial expressions, gestures and what they mean or possibly mean or could be interpreted as being.

then one has expressed a lie, even if S is actually true, unbeknownst to the individual. Thus, the expression of a lie is distinguished from telling a lie. The attributes that normally coincide with sarcasm, such as a sarcastic tone, can also be used in order to deceive an individual. For example, if an individual answers a question with "Y-E-A-H, that's *RIGHT*!," and it includes a sarcastic tone, then the interpreter, depending upon the age, will be more likely to assume that the answer is negative rather than positive. Several different types of deception with the accompaniment of true statements are given, and the traditional definition of "lying" is criticized in accordance with neurological research that distinguishes two very different types of speech that are currently described as: rehearsed lying and spontaneous lying.

Levels of Consciousness and Higher Order Thinking

The various levels of consciousness and higher order thinking are described from the lowest level (i.e., rudimentary consciousness) of awareness in respect to internal consciousness regarding hunger, satiation, excretion and the like, sense perception consciousness concerning the most simple awareness via the sense perceptions directed toward other things in the environment, higher-order meta-conscious awareness, which takes place when an individual can recognize itself. For instance, infants recognize themselves in mirrors at twelve months. Second-order consciousness (i.e., meta-meta-consciousness) is described to take place approximately after the age of three, which coincides with the development of sophisticated answers for the false-belief task. Third-order consciousness (meta-meta-meta-consciousness) takes place roughly after the age of five. Finally, the highest order levels of consciousness involve the recognition of sarcasm without a cue and the recognition of other types of deception.

It is hypothesized that the ability to think about oneself thinking about oneself looking at a red rose, for instance, gives an intensified effect that changes the phenomenal experience of consciousness. The reemphasis of testing for phenomenal consciousness in other species arises at this point in relation to the induction of hallucinations of hunger or satiation for those species that are suspected to possess rudimentary consciousness, like spiders. Similar methodologies are described in relation to the higher levels of consciousness, which would also involve the instantiation of hallucinations.

Definition of Sarcasm

"Sarcasm" is defined after an historical explanation a few distinctions are made regarding irony and sarcasm. "Sarcasm" is understood as the expression of language, which often includes statements that are disbelieved by the expresser (i.e., where the sentential meaning is disbelieved by the expresser) and where the intended meaning varies from the meaning of the sentence. However, sarcasm can be expressed in the form of rhetorical questions that, nevertheless, are insulting, and which can be humorous. The recognition of sarcasm without the accompaniment of some signal develops around the beginning of adolescence or later. Sarcasm involves the expression of an insulting remark that requires the interpreter to understand the negative emotional connotation of the expresser within the context of the situation at hand. Irony, contrarily, does not include derision, unless it is sarcastic irony.

The problems with these definitions and the reason why this dissertation does not thoroughly investigate the distinction between irony and sarcasm involves the ideas that: (1) people can pretend to be insulted when they are not or pretend not to be insulted when

they are seriously offended; (2) an individual may feel ridiculed directly after the comment and then find it humorous or neutral thereafter; and (3) the individual may not feel insulted until years after the comment was expressed and considered.

A Response to Wittgenstein's Logic and the Sarcasm Paradox

Let 'if p, then q' be called "S." It is obviously that 'S or not-S' is a tautology. However, what if we want to claim that we are undecided about the judgment? We could not maintain that ' \sim (S v \sim S)' since this is merely the negation of the tautology, which is an obvious contradiction. A new sign is necessary in order to explain the "excluded middle" or the third part of the judgment which is missing. So, the undecided judgment reads '?(S v \sim S)' in which a "?" serves as a quantifier involving the indeterminate aspect of the matter. Moreover, this is directly applicable to research regarding ToM.

When we analyze a typical sarcastic statement (e.g., "Great job!," after somebody has botched something), we are typically confronted with a sentence that: (1) the expresser does not expect for the interpreter to believe; and (2) the expresser does not expect for the interpreter to believe that the expresser believes it. When the so-called liar's paradox is asserted (e.g., 'This you are currently reading is false.'), the same two conditions are generally met. If a person believes that some sentence, which is an example of the liar's paradox (e.g., "What I am saying now is false."), is false, but asserts the sentence as if it is true, then the person is expressing a lie, according to the aforementioned definition of the expression of a lie, and this is consistent since a lie does not always have to false, but rather contrary to what one believes (i.e., perhaps false in accordance with a coherence theory of truth as opposed to a correspondence theory).

Likewise, the expression of the sarcasm paradox similarly meets the same conditions: (S) "This sentence, sentence $\{(S)\}$, is sarcastic." If (S) has a true truth-value, then it is literal and sincerely expressed, contradicting the meaning of "sarcasm." If (S) is false, then the sentence is insincere, so it could be interpreted as a joke, exaggeration, lie or other form of deception in relation to the self-referential analysis of the statement.

"Lying" is defined as the intentional expression of a false statement, which is illustrated to be problematic. Thus, lying is analyzed in relation to the psychological literature, which generally retains the aspect of the definition that involves deception. However, there are counter-examples, such as "little white lies," which are typically polite utterances that one makes (e.g., "Yes, you do look good in that dress," or "I do like the gift you gave to me"), although one does not believe them. Despite the fact that the definition of "lying" is disputed and has serious problems in relation to reconciling a workable definition that matches social cognitive research, the liar's paradox appears to be interpretable as sarcastic reason.

One major difference between lying and exaggeration in comparison with sarcasm, joking and humor is that when one watches a theatrical performance or film, the character can lie and exaggerate, but the actor is assumed neither to be lying nor exaggerating since there is suspension of disbelief that takes place, and the actor is not trying to deceive anybody into believing his character's lies (i.e., the actor is just pretending to lie); on the other hand, when a film character expresses something sarcastic, jokes and the like, then we do not claim that the actor is merely pretending to be sarcastic, pretending to tell jokes and acting out sarcasm and jokes. We claim that the actor is sarcastic, funny, joking and so forth. One reason for this is that once the

individual has attained the proper ToM skills for sarcasm and joking, then the person is as he or she acts, but lying and exaggeration are different to the extent that they involve stricter situational variables.

III. The Cynical Structure of Political and Cultural Ideology, Legality, Acceptability and the Role of Sarcasm

All actions within a society or subculture within a society are categorized as either legal (L) or illegal (i) and as either socially acceptable behaviors (e.g., buying a bike with the money one earned and from a legitimate business, which is also legal (LA)) and socially unacceptable behaviors (U).

- (1) Legal and Socially Acceptable (LA) = (L & A) \leftrightarrow (($\forall x$) (Lx & Ax)) $\rightarrow \sim$ (($\exists x$) (ix))
- (2) Illegal but Socially Acceptable (iA) = (i & A) \leftrightarrow (($\forall x$) (ix & Ax)) \rightarrow (($\exists x$) (Ux))
- (3) Legal but Socially Unacceptable (LU) = (L & U) \leftrightarrow (($\forall x$) (Lx & Ux)) \rightarrow (($\exists x$) (Ax))
- (4) Illegal and Socially Unacceptable (iU) = (i & U) \leftrightarrow (($\forall x$) (ix & Ux)) $\rightarrow \sim$ (($\exists x$) (Lx))
- (1) through (4) serve to illustrate the cynical structure of legislature and government in relation to society and certain subcultures since there are two categories that contrast with the best interests and desires of certain citizens, which are actions that are illegal but socially acceptable (e.g., certain products and immigration acts are illegal, but socially acceptable within the community, like an immigrant who stays an extra week longer than her visa in order to help out the community) or legal but socially unacceptable (e.g., blowing the smoke of a cigarette into somebody's face and laughing). Whereas many of the actions within these two categories happen daily within the society as a whole and often are unnoticed by the authorities, it is argued that civil conflict, civil war, and civil unrest occur as a result of these two incongruent categories when the governmental powers are unable to suppress the demands and desires of the citizenry via ideology⁷² and deception.

The whole political-economy is argued to be based upon beliefs of the masses, and ideology serves as a set of ideas and ideals that ground and stabilize certain phenomena as "facts" within the minds of the masses. For instance, a necessary condition for borders to exist is the establishment of a proper ideological belief set amongst the masses. That is, if nobody believed that there is a border between Mexico and the USA, then there would not be one. Currencies function similarly in that they are based largely upon the beliefs of the masses, and if everybody believed that the English Pound were a worthless currency tomorrow, it would lose its power in the exchange.

The notion of a hegemony is established here as the socio-political powers of some geographic region that possess some sufficient output of ideology that has already and continues to indoctrinate the masses so that they are not concerned with what is legal but socially unacceptable and illegal but socially acceptable. On the other hand, the

^{72 &}quot;Ideology" is a system of ideas and ideals typically about how to act and why, a way of thinking that describes a particular group or social class. Ideology is descriptive of the similarities amongst members of a group and generally refers to political or economic theory. Marx maintained that "ideology" is "false consciousness," which means it is a variety of abstract beliefs that do not take historical or material existence into account via the distortion and concealment of social contradictions.

dominating powers of society would involve some government that rules by force since their ideology has not been well-established via the education system, media outlets and so forth.

Ideology critique is described by Brant in accordance with Peter Sloterdijk within his *Critique of Cynical Reason* (1987). Ideology critique involves analyzing a series of miscarried dialogues between two or more opposing parties to such an extent that the intentions, interests, goals, expenditure of time, effort and money and the false consciousness of the group are laid out openly, and the disputes between the parties are made straightforward. Ideology critique is challenging since there is no common ground in regard to the parties within the dispute. For instance, one group may interpret the word "liberal" to be insulting, whereas the next group interprets the word as being positive. The usage of such words, presumptions made by both parties, representatives paid by and for a party versus representatives paid by one party to represent the other party in an ugly, unconvincing but consistent fashion (i.e., an ugly man using the opposing party's language and less-than-convincing arguments) are all conditions which ideology critique must describe amongst the deceptive, clandestine natures of the ideologies in opposition.

Within the series of miscarried dialogues between two, say, political parties, there are often members of third, fourth etc. parties that are almost absent from the debate, and it is here that sarcasm serves an interesting function, which shall be extended to metaphysics in relation to philosophical ideologies. Any actor can perform sarcasm directed toward another party.

However, those individuals who, contrary to some party P, are negatively affected by P in regard to P's decisions, actions, intentions etc, and nevertheless these individuals advocate P's policy, language, arguments etc. in a manner in which an audience can observe the absurdity, self-destructiveness and irrationality—they are using "biting sarcasm" against the ideology, which serves to expose the flaws, lies, errors, deceptive tactics; this is "biting" to the extent that the group negatively affected and once deceived into supporting the ideology is surgically removed from the group like a sarcoma, being sliced away from the body by biting sarcasm, which could serve to destroy the entire ideology as if it is laid to rest within a sarcophagus.

Two examples are given of this type of sarcasm. For example, in the USA Steven Colbert (a comedian and actor) was allowed to criticize President George W. Bush in 2006, which functioned to be the most highly insulting and sarcastic speech about one of the most powerful leaders of the world. It fails to be the type of "biting sarcasm" described above since it could not affect a reelection process of the politician during his last term. Jon Stewart similarly utilizes sarcasm in order to expose the partisan affiliations of those with whom he is arguing. The descriptions of Colbert and Stewart are also described differently in regard to the expressions of the former being rehearsed and the latter being spontaneous.

The negative, insulting and offensive nature of sarcasm is compared to the notion of kynicism, which is a type of response that involves cheekiness, no respect for the person to whom it is directed and often dog-like behavior. Answering a journalist's question about the beneficial role some politician has played within the community with a fart is a good example. Thus, "fartiness" becomes a concept and manner of retort within certain circumstances. Diogenes the cynic is the most well-known advocate of this type of argumentation, if it can be appropriately characterized as such, when he

responded to something like Plato's ethics concerning Eros by masturbating in public. In comparison sarcasm should be analyzed as a moderate form of response.

		(L) Logical	(P) Physical	
(_P) Possibility	(PP v	PI) & ~(PP & PI) & ~(LI)	(LP) & ~(LI v PI)	

(LP v LI) & ~(LP & LI) & ~(PP)

(PI) & ~(LP v PP)

(I) Impossibility

The graph above describes the structure within which each ideology categorizes certain events and objects. For instance, philosophers might categorize the event of drawing a round triangle as (LI), which means that it is logically impossible and thus it is physically impossible (PI) and neither logically nor physically possible (i.e., (LP) and (PP), respectively). It is argued that the categories of (LP) and (PI) are merely epistemic categories that, at best, describe the undecided and indeterminate nature of the categorizer. The reason for this is that (LP) logically entails that some event or object is either (PP) or (PI) but not both, and it is not (LI); however, the fact that it is either (PP) or (PI) means that this matter is absolutely undecided. Thus, (LP) cannot be an actual metaphysical category. For the same reasons (PI) is also not a metaphysical category.

Metaphysics (i.e., the study of possible worlds) is argued to be in pursuit of the establishment of physics via other mean than what is afforded to us via scientific investigation, and this is accomplished via rational argumentation and logic. It is argued here that the categorization of all events and objects that are real shall be placed within the (PP) category in accordance with the progression of the sciences and metaphysics. Sarcasm serves the same function here as it does in regard to facilitating the removal of absurd, irrational and self-destructive belief-sets in relation to political and economic ideologies. Sarcasm functions to expose the ridiculousness of certain claims regarding belief. So, it extends it use within metaphysics. Voltaire's *Candid* is an excellent example of a piece of literature that directly illustrates the absurdity of Gottfried Leibniz's stance in relation to the actual world being "the best of all possible worlds" because God would not have created a world that is less than perfect since it would be morally unjustifiable and thus negate the perfection of God. Sarcasm functions like modus tollens in regard to negating irrationalities because it exposes the absurdities.

William Brant's Responses to the Objections to his Critique of Sarcastic Reason

Objections were given by Drs. Andonov and Gurova, translated by Dimitar Ivanov, and edited for clarity by William Brant.

Objection: According to Prof. Lilia Gurova, Brant compares rehabilitating a patient with vision problems via the practice of "looking" (i.e., the patient has lost the ability to see as a result of brain damage) to the rehabilitation of a patient who has lost the ability to recognize sarcasm.

Brant's Retort: This is an interesting point that "appears" to illustrate the absurdity involved within the rehabilitation of the ability to recognize sarcasm and in respect to the associated brain areas. This formulation of an argument is well-received by the author of the dissertation because it requires a formulation of the rehabilitation of this sarcasm recognition ability in order to respond appropriately.

The rehabilitation technique of the recognition of sarcasm: The processes of learning or relearning how to recognize sarcasm requires several steps associated with different areas of the brain and their associated functions. For instance, the subject being rehabilitated must recognize that the context in which the sarcastic expression is uttered is referring to some event that would be appropriately and literally described as "negative," such as the interpreter of the expression spilling coffee on himself directly before the utterance of the sarcasm. Of course, the interpretation of the event as a negative one demands that the individual experience certain associated emotions, the mental content (i.e., belief, desire, doubt, expectation etc.) must be directed toward the sarcastic expression, toward the event to which it refers, and in the direction of a contradiction that arises as a result of a sincere description of the event (i.e., the cause of the coffee stain).

Interestingly, each of these factors contributing to the recognition of sarcasm is able to be focused on and described to a patient who is learning to recognize sarcasm. A focus on each individual factor allows for the patient to practice reducing the time period during which the cognition of (a) the contradiction, (b) emotional or positive/negative mood attribution, (c) interpretation of the sincerity or lack of sincerity of the expresser, and (d) interpretation of the truth-value of the sarcastic remark. Actually teaching the person would require the imagination of the patient and role playing.

For instance, the patient might be requested to imagine that she just tripped and fell but did not hurt herself because she luckily but clumsily fell softly. The teacher would ask the patient to interpret a whole list of statements in terms of their positive and negative connotations. For example, the teacher claims or questions: (1) You must be an Olympic athlete; (2) Are you a professional athlete, like a surfer, sprinter or something?; (3) I am just glad that you are not hurt; (4) if I had a dog that did that, I'd have it put to sleep; (5) You scared me. Don't do that again. (1), (2) and (4) would require an analysis produced by the patient that demands an application of (a) through (d). Moreover, working on the analysis of one of the latter factors individually is not as difficult and can be improved in regard to interpreting writing and utterances.

Related objection by Dr. Gurova: Even if the hypothesis that practicing sarcasm is necessary and thus morally justifiable is verified, the fact remains contestable whether sarcasm's use for early diagnostics and rehabilitation of some forms of dementia is enough for us to reevaluate the ethical status of sarcasm usage in everyday life. If murder and lying can be shown to be morally justified in particular situations, this still does not change the overall negative valuation these acts receive in most ethical theories. It seems that when it comes to justifying sarcasm usage W. Brant relies more on his second argument in defense of the ethical consistency of such usage. The latter argument attempts to show that sarcasm can be used not only for the benefit of certain individuals but also for the greater good of society as a whole.

Brant's Response: The *Critique of Sarcastic Reason* does not attempt to morally justify the usage of sarcasm with any accepted moral theory, such as virtue ethics, deontology, consequentialism or Levinas's first philosophy, for instance, but rather the *Critique* serves to illustrate that sarcasm is a necessary consequence of higher order ToM. Therefore, the usages of particular ethical theories or related eclectic moral approaches remain to be justified by the audience of the *Critique*. Of course, if something is necessary, then it is morally justifiable and morally permissible.

The usage of sarcasm in everyday life is not a major concern of the dissertation. The fact that men have been observed by social psychologists to use more sarcasm during texting behavior is mentioned in relation to research conducted by Prof. Simeon Yates in England, but the overall usage of sarcasm in various aspects of everyday life is only a secondary concern of the dissertation. Sarcasm is argued to serve as an intelligence testing tool, which allows one to know whether an interpreter understands that the expresser does not believe and not expect the interpreter to believe that the expresser believes what the expresser claims or alludes to within a question, for instance.

With these intelligence testing tools there are some people who are exposed as being ignorant, lacking an understanding, or coming to an understanding late in the conversation, which provide the sarcastic expresser with a chance to gauge the social cognition skills of the other person. Since sarcasm allows for one to gauge the intelligence of another individual, it seems reasonable that it is ethical to practice, especially among those who are patient, tolerant and good-humored.

At least a couple different ethical approaches are present within the dissertation, but these are not prescriptive ethical approaches. For instance, evolutionary ethics and David Hume's are the underpinnings of the arguments that sarcasm is justifiable within the field of medicine and the political arena because both Hume and evolutionary ethicists have descriptive ethical theories, and descriptions of the praises within the medical field and the social institution of politics demonstrate, according to the latter theorists, that our senses of morality tend not to make the distinction that it is a vice to make such utterances. Moreover, it has been demonstrated that it can be considered virtuous within the medical field to utter sarcastic remarks to patients who potentially have frontotemporal dementia.

Related Objection: Does the fact that usages of sarcasm contribute in isolated cases to benefits of certain individuals and society as a whole entail that we have to rethink (i.e., change) our beliefs that using sarcasm is usually something bad? For the sake of

comparison we may consider acknowledgements that although murder and lies may be morally justified in specific cases, such moral justification does not lead to any rethinking of their general negative valuation.

Brant's Response: Sarcasm has been portrayed in several different manners, and although there is no doubt that it is an important question about whether sarcasm as a form of an insult should be rethought in regard to whether it is ethical or not, the dissertation does not make such general claims about sarcasm because the author was not motivated to include any particular moral theory. The reason for this is that the author prefers an eclectic approach to ethics, which combines various systems of thought that are in some instances contradictory, and an inclusion of this would require too many pages of analysis.

The second reason for this is that the author compares lying to sarcasm and disagrees with Immanuel Kant and Prof. Gurova that lies have a "general negative valuation." The reason for this is explained within chapter II The Philosophical Psychology of Deception, section ix. Firstly, Brant agrees with Mahon that there is no universally accepted definition of the word "lying." Brant argues that one can actually state something that is true, which is still objectively defined as a lie, for instance. Although the latter example would be argued to be immoral, according to Brant, there are lies that are justifiably interpreted as polite (Talwar & Lee, 2007 & 2008).

Dr. Gurova appears to be espousing a deontological view with this criticism (or perhaps virtue ethics since being sarcastic might be interpreted as a vice), but this would assume that actual consequentialism, for instance, is false in cases where sarcasm would benefit us all from an impartial perspective. Despite the fact that Brant would not support such a consequentialist approach, the juxtaposition of these views would have to be analyzed by Brant if he would have approached the philosophical problems of sarcasm from an ethical viewpoint. However, if the author did approach sarcasm from this standpoint, he feels that Levinas's ethics as first philosophy would be valuable.

Objection: According to Prof. Gurova, the motives for situating the argument in defense of physicalism within the third chapter are unclear since the latter chapter investigates the social functioning of sarcasm. And what is the role of this argument regarding the general idea of the dissertation? It seems to stray away from the main goal.

Retort by Brant: The presentation of physicalism within the dissertation was included to coincide with the metaphysics of ideology critique. The motivation of the author was to offer an example of the extent to which sarcasm could be used within the field of metaphysics and ideology critique. The logic concerning sarcasm in regard to the LIPP diagram is quite complex since it requires an understanding of several different ideologies in relation to how they categorize events and objects within the following four categories: logical possibility (LP), physical impossibility (PI), physical possibility (PP) and logical impossibility (LI). It is argued that only the latter two categories must categorize all our descriptions of objects and events, although all actual events and objects reside within Pp (i.e., the ontological category), which is a subcategory of PP (i.e., the epistemic category). The reason for this is that LP and PI are epistemically vague, which can be readily observed from their definitions, respectively, "that which is either physically possible or physically impossible and not both" and "that which is either

LP or LI and not both."

The trouble with these categorizations is that they are undecided in regard to the disjunctions they give as descriptions of these categories, and from the logical standpoint only one part of the disjunction must be the case and not the other. Therefore, LP and PI fail to describe events and objects. Physicalism is a stance that is accepted as a logical result of the latter consequences concerning the four categories since all facts are physical ones, and the four categories, making a single diagram, are used to describe a single ideology that is being critiqued. Since most of us do, in fact, categorize events as physically impossible and logically possible (e.g., jumping 2.5m high), there is room for criticism of our ideologies.

At the beginning of the final chapter the structure of ideologies reflected the categorizations of socio-economic and legal perceptions of the members of these ideologies. There are four categorizations for all behaviors, including legal and socially acceptable, illegal and socially unacceptable, legal but socially unacceptable (LU) and illegal but socially acceptable (IA). The latter two categories present a contrast, which is argued to serve several purposes, namely, allowing us to realize the ideology of the hegemony and determining the extent of the risk that the hegemony allows for civil unrest and conflict, which is a consequence of disallowing members of ideologies and others to legally obtain what they believe and desire as just (i.e., IA) and, contrarily, allowing others to perform what is perceived as unjust (i.e., LU).

Although insightful, the latter characterizations do not take into account the mental states that are normally involved with religious and scientific ideologies. This is the purpose of the LIPP diagram, and as a structural graph for each ideology, there is room for sarcastic criticism, namely, in the form of religious sarcasm. My stance here is not entirely clear though. There are reasons for this. First, my stance, which supports physicalism as the logical standpoint from which ideology is criticized, entails that supernaturalism is obviously false. Second, my stance can be clearly recognized as against the religious viewpoint. It is fundamentally against religious ideology since there is only a physical realm by which we can consistently describe events and objects, but as a result of making these arguments any religious sarcasm would be blatantly obvious, which subtracts from any ToM calculations. That is, I felt that the religious sarcasm would either be boring or appear disrespectful. It would be boring because religious sarcasm is so easy to produce or disrespectful simply because it is insulting, and my stance is counter-opposed to not only the religious ideologies but the very structure from which each of them function (i.e., LP and PI), which is contradicted by physicalism.

Objection: Dr. Gurova maintains that she does accept the categorization of sarcasm as "deceptive reasoning," but only does so with hesitation. For on one hand, a basic characteristic of sarcastic expression is that it conveys as truth something that is not true. Yet on the other hand, statements that are deceptive (i.e., misleading) are considered as such when they aim to and/or manage to induce real deception. This is not the case with sarcasm since the sarcastic expresser does not aim at misleading the interpreter, and the interpreter is not deluded in cases where he successfully recognized the sarcasm.

Response: Brant has argued that sarcastic reason is a form of deceptive reasoning. The reasons for this are multifarious. First, it is deceptive for children and young adolescents

without disorders, such as autism. Furthermore, it is deceptive for people who have not practiced sarcasm or who have not heard it in a substantial amount of time (note: this amount of time is measurable but has not been measured), so the elderly sometimes have trouble with sarcasm, unless they have families, friends or other visitors who use it around them. The idea here is that sarcasm often arises spontaneously within conversations between more than two people. How do we interpret what sarcasm is for a seven year old when it is insulting for one adult, the expresser stated something sarcastic, and the child merely observes?

If the child is responded to sarcastically, and it takes her five years before she remembers and realizes that her father was being sarcastic during their private conversation, then Brant interprets this as a deception because the child was deceived into thinking that her parent did not necessarily disbelieve what he said, or she may interpret it as a lie in which case it is deceiving as well. Overall, Brant argues that sarcasm is deceptive from a developmental psychological perspective.

Question posed by Dr. Lilia Gurova: Lastly, what are the peculiarities of a sarcastic critique of an official ideology that make the former a better tool for social critique than direct exposal of the disparities between legitimacy and social acceptability that are being screened by official ideologies?

Response by Brant: Sarcastic reason is specifically a superior tool for social critique than the arguments of the opposing ideologies because it assumes no stance that is supporting the best interests of a particular ideological group. To that extent it can be manipulated by socio-economic critics so that the expresser of the sarcasm can be readily observed to not be benefitting from the stance that is taken against the ideological group that it aims to attack. This attack is argued to be "biting sarcasm" at such levels of social critique if and only if the members of this ideology, who were deceived via ideological jargon to act on behalf of the ideology, are convinced by sarcastic reason to leave the group they once supported.

For instance, Steven Colbert often sarcastically responds to people who support graduated inheritance taxes or any graduated taxes as being supporters of "class warfare." Colbert makes claims that would obviously support his position within society as being within the upper socio-economic class and millionaire who lives in the US. However, he makes those within the upper class appear greedy (e.g., Colbert claims about his money "I've got mine Jack, so f*ck the rest of them!"). Colbert argues that graduated taxes are supported by "anti-patriotic and anti-American socialists," and the word "socialist" has a negative connotation within the US. With Colbert's sarcasm the people who make the latter remarks are exposed as either greedy elites or people who have been deceived into accepting the ideological jargon of these elites.

Final note: I would like to thank Dr. Lilia Gurova for her thoughtful arguments concerning my dissertation. Blagodarya.

William Brant November 2, 2010 **Objection by Prof. Andonov:** Dr. Andonov argues that when one analyzes the understanding of beliefs, desires and other mental states of others it is important to distinguish between doing that within the experimental setting and doing that in real life. Sarcasm does not occur as an experiment, although one could experiment on it. It is a real relation between human beings. Prof. Andonov maintains that the relation of understanding that is claimed to be at a certain level or order of thinking, and the thinking within an experiment could be different when it comes to non-experimental relations. This omission of differences makes it hard to understand both experimental situations and relations of the understanding of understanding in real life.

Response by Brant: Prof. Andonov is correct in this assertion, and it should be noted that sarcasm analyzed within the type of experimental settings that are proposed and the observations of sarcasm by unknowing conversation partners might yield very different results. Moreover, in regard to sarcasm this relation could be an important distinction since sarcasm allows the highest levels of theory of mind to be observed.

Objection by Prof. Andonov: The fact that within the paradigm defended by our colleague William Brant on self-reflexivity is ignored, in favor of relations between people, means that essential specifics of rationality are lost. This leads to a lack of understanding of traditional philosophical accomplishments (see, for instance, the attitude of colleague Brant toward the different branches of philosophy on pages 111-2) and inability to use their contributions for thinking about thinking.

Response: I will take the literature on self-reflexivity and apply any of the consequences to the branches of philosophy that have been proposed as new fields.

Objection: According to Prof. Andonov, the description of the different orders of being conscious is confusing, even from a purely technical point of view, which is described by Brant in section II.vii.

Response: There is some confusion within the literature in regard to higher-order levels of consciousness. For instance, it is not difficult for the individual (i) to think that John thinks that Mary thinks that Jim thinks that (i) believes what (i) says. However, it is difficult for (i) to think of the same number of beliefs in relation to (i) and one conversation partner, or it is at least difficult to describe this relation.

Moreover, individuals that are able to have higher-level cognitions are categorized similarly even if there is a quantifiable difference. The reason for this involves the great changes in complexity from the first type of consciousness to the second. However, once higher-order thinking takes place the shifts in complexity are not as vast.

Objection: Prof. Andonov claims that clarifications on different orders are not homogenous. The third-order consciousness is explained through an experimental solving of false-belief tasks, which is not even mentioned in relation to previous orders. It is claimed about the "Highest order of consciousness" that they "take place during the

understanding of irony and sarcasm as well as other sophisticated types of deceptions" (II.vii) but they are not any clues about what we should understand by 'sophisticated."

Response: An example of fourth-order ToM is explained by Brant at the end of chapter I.iv. This example and others relate to the measurement of intelligence, and the sophistication level involves a more detailed analysis in regard to the description of the mental content focused on the mental content of another which is focused on the former's mental content and so forth.

Objection: Prof. Andonov writes that he cannot agree with his colleague William Brant that sarcasm belongs to deceptive reason. The reason for this is the fact that a revealed deception is a failed deception, and an unrevealed sarcasm is a failed sarcasm.

Response: I would like to refer to the response I gave to professor Gurova in respect to a slight disagreement over this topic. I thank you both for your thoughtfulness and efforts.

William Brant November 2, 2010





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