January 2015

Spectrums, Subgroups And School-Lunch: The Linguistic Capital Of Students With Autism

Scott Andrew Belden

Follow this and additional works at: https://commons.und.edu/theses

SPECTRUMS, SUBGROUPS AND SCHOOL-LUNCH:
THE LINGUISTIC CAPITAL OF STUDENTS WITH AUTISM

by

Scott Belden
Bachelor of Arts, University of Missouri, 2008

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Arts

Grand Forks, North Dakota
December
2015
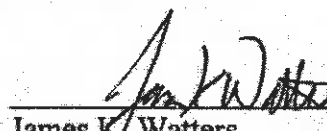
This thesis, submitted by Scott Belden in partial fulfillment of the requirements for the Degree of Master of Arts from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

David J. Weber, Chair

Mark E. Karan

James K. Watters

This thesis meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Wayne Swisher,
Dean of the Graduate School

August 6, 2015
Date

PERMISSION

Title	Spectrums, Subgroups and School-Lunch: The Linguistic Capital of Students with Autism
Department	Linguistics
Degree	Master of Arts

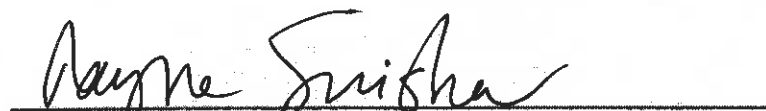In presenting this thesis in partial fulfillment of the requirements for a graduate degree from the University of North Dakota, I agree that the library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by the professor who supervised my thesis work or, in his absence, by the chairperson of the department or the dean of the Graduate School. It is understood that any copying or publication or other use of this thesis or part thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of North Dakota in any scholarly use which may be made of any material in my thesis.

Scott Belden
July 29, 2015

TABLE OF CONTENTS

LIST OF EXAMPLES

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGEMENTS

I would like to express my heartfelt thanks:

To David Weber, for sparing neither the editor's pen nor the advisor's encouragement.

To Mark Karan, for introducing me to sociolinguistics and corresponding on sabbatical.

To Jim Watters, for sharing his time, energy, wisdom, laughs, office and fan.

To all of the students, parents, and faculty, for their support and patience.

To Nils Kaland and Courtenay Norbury, for allowing me to use their materials.

To Porter, for lending me a statistician's ear and giving me nachos.

To Charles, for lending me a pastor/researcher's ear and also sharing nachos.

To Aaron, for telling me to have some _____ humility at a crucial juncture.

To Mary Morgan, whose prayers helped transform the hardest days of 2014.

To Regina Blass, for showing what it looks like to pour oneself out for the hungry.

To Mom and Dad, for carrying me for nine months and reading to me for many more.

To God, for giving me the opportunity to give my two cents' worth (Luke 21:2).

ABBREVIATIONS

AS	Asperger's Syndrome
ASD	Autism Spectrum Disorders
CGI	Computer-generated imagery
HFA	High-functioning autism
IEP	Individual Educational Plan
MRI	Magnetic resonance imaging
NT	Neurotypical
PDD-NOS	Pervasive Developmental Disorder- Not Otherwise Specified
ToM	Theory of Mind

ABSTRACT

Individuals with autism spectrum disorders (ASD) are known to have difficulties with pragmatic language. There is, however, a subpopulation of those with ASD that exhibits a high competency with pragmatic language. It can be difficult for researchers to find natural contexts to record these high-functioning individuals and examine their spontaneous use of pragmatic language. Additionally, there is a need to move beyond analyzing the cognitive abilities of these individuals to a sociolinguistic exploration of how they use pragmatic abilities to form and navigate social groups.

The research involved in this thesis included audio-visual recordings of 14 high school students with ASD. These students were filmed during metaphor comprehension tests and tests requiring inferences about the mental states of story characters. Also, for four weeks naturally occurring conversations of students and faculty in a classroom were recorded during lunchtimes. I use Relevance Theory as a framework for discussing findings as it integrates aspects of the cognitive and the social contexts.

I conclude that the abilities of students with ASD to understand and produce pragmatic phenomena such as metaphor and irony are better illustrated by naturally occurring interactions than by comprehension tests. Comparing the comprehension tests with lunchtime recordings, I claim that, just as uses of metaphor fall on a spectrum ranging from creative to conventional, so also do uses of irony, echo, pretense, banter and combinations thereof. Likewise, these uses of communication range from weak to strong. That is, utterances may produce multiple weak implicatures, or give a few strong

explicatures. Student proficiency in using creative and weaker communication is not only an ability, but also manifests linguistic capital in the social practice. This linguistic capital is used by participants to establish the politic behavior for the emergent network of those with similar linguistic capital. It is also used to distance and exclude other students who are seen to lack the linguistic capital. The combination of creativity and social factors can also lead to the stabilization of new lexical senses.

CHAPTER 1

INTRODUCTION

In the conclusion to Tim Wharton's 2009 book, *Pragmatics and Non-Verbal Communication*, he indicates a possible direction for applying his findings: "One discipline to which the cognitive pragmatic framework outlined in this book might be fruitfully applied is sociolinguistics. In many ways, it is surprising that few attempts have been made in this direction" (192).

The cognitive pragmatic framework to which Wharton refers is a development of Relevance Theory with an expanded emphasis on non-verbal elements such as facial expressions, prosody, and gesture. Indeed, even as far back as 1997 Sperber and Wilson issued a call for applying Relevance Theory to the social sciences (1997). Wharton mentions a few researchers who have answered the call, and suggests another way that Relevance Theory might be applied to sociology (2009:193):

> [W]ork in discourse analysis and sociolinguistics often centres on social notions such as power relations and inequality, and examines how they are manifested, reinforced and even *constructed* by discourse. Approaching the sociolinguistic domain from a different perspective— that is, starting with the minds of the individuals who create the discourse, and treating macro-level sociolinguistic phenomena as resulting from an accumulation of individual micro-level acts— may yield interesting and worthwhile results.

I attempt this approach in the present study of a community of high school students with ASD. It first explores at the micro-level the minds of the individual students, then explores how the micro-level acts lead to the macro-level social processes of forming, maintaining and avoiding relationships. The size of this community may not be considered "macro" in the sense that Wharton would hope for, as it is only as large as the community of students with ASD within the classroom and the nearby faculty. However, it is a community in which we can apply the cognitive pragmatic framework to sociolinguistics.

In chapter 2 I give an overview of autism and pragmatic studies of autism. In chapter 3 I describe the methodology for my research. Chapter 4 gives an overview of Relevance Theory concepts that will be helpful in discussing the findings. Chapter 5 discusses the results and limitations of the written metaphor and story tests. Chapter 6 describes a variety of linguistic phenomena found in the lunchtime recordings. Chapter 7 explains how the linguistic phenomena of chapter 6 manifest linguistic capital, used in the classroom to form and navigate social groups.

As suggested by the title of this thesis, the *spectrums[1]* to be discussed include both the autism spectrum as well as the range of linguistic phenomena that appear in the

---

[1] Though the Latin plural of "spectrum" is "spectra," I prefer the anglicized alternative "spectrums" in honor of the students who were fond of neologisms such as "autisms" when referring to individuals with autism. This will be revisited in chapter 7.

data. Additionally, just as there are efforts to classify subgroups among the population of those with autism, there are also *subgroups* of linguistic phenomena that appear on spectrums. As for the third element of my alliterative title, these spectrums and subgroups are best discussed in the context of *school-lunch*.

CHAPTER 2

PRAGMATICS AND AUTISM SPECTRUM DISORDERS

2.1 Autism Spectrum Disorders

Autism is a neurological condition characterized by difficulties in social interaction and communication. Recently, both genetic and environmental factors have been found to contribute to it. There is a wide diversity of symptoms and characteristics from one individual to another. In the past, the diagnoses were broken up into groupings such as: autism, Rett's, Pervasive Developmental Disorder Not Otherwise Specified (PDD-NOS), high-functioning autism (HFA) and Asperger's Syndrome (AS). These distinctions were found to be inadequate. For example, according to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-4), the symptom of early language delay was thought to separate Asperger's Syndrome from autism, but this proved to be inconsistent. The most recent edition, the DSM-5, has modified the definitions to make it all one spectrum: autism spectrum disorders.

Though autism has long been recognized as a spectrum of disorders, it has not always been presented as undifferentiated as it is in the latest DSM. Because there is so much diversity, many multisite trials are failing in psychological and genetic studies. This indicates that there is still work to be done in uncovering subtypes. David G. Amaral at the University of California-Davis is investigating these subtypes with magnetic resonance imaging (MRI) of the brains of those with autism. He is among those attempting to "parse the complexity of autism into more homogenous subtypes" (2014

4

lecture). Though there is promise, at this point the tension between the spectrum and the subtypes is unresolved.

With regard to the present study, most of the students are diagnosed as having AS or HFA, but even among these students there is great diversity. Some attend general (or honors) education classes independently, while others receive more direct attention from special education faculty. Some students regularly socialize with neurotypical friends, while others prefer to be alone. An individual student may even vary behaviors from day to day.

For the purposes of this research, students were recorded and studied without being grouped by particular subtypes. I do not have access to an MRI machine, nor has anyone yet figured out all of the possible subtypes. Fortunately, as this study focuses on language and how it is used in social contexts, there is at hand a subgroup well-attested in high schools: the clique. These arise on the basis of shared affinity and exclusionary practices, which clearly divide the students into groups, as will be evident in chapters 6 and 7.

2.2 Overview of Literature

Autism was first studied by Leo Kanner in 1943. Asperger's Syndrome gets it name from Hans Asperger's work (1944), which was translated into English in 1979 (Wing 1981). Asperger's Syndrome was put into the *Diagnostic and Statistical Manual of Mental Disorders* in 1994 (Bartlett et al. 2005).

As autism is a neurological condition, much research sought to understand the brain differences between neurotypical individuals and those with autism. Initially, most autism research was conducted from a clinical psychological perspective, but over time

autism has become a staple of interest in linguistic pragmatics study. Thus, autism researchers study both the neurological and chemical aspects of the physical brain, as well as the metaphysical mind.

Autism has been a popular testing ground for pragmatics because of the comprehension difficulties associated with individuals with autism. This is reflected in the title of Baltaxe's significant study "Pragmatic Deficits in the Language of Autistic Adolescents" (1977). Martin and McDonald (2003) give a helpful summary of three different hypotheses proposed to account for the deficits: 1) social inference theory, which involves Theory of Mind (ToM), 2) weak central coherence, and 3) weak executive function. Given the different hypotheses, Happé et al. (2006) stress that, while each theory makes a helpful contribution, there is no single explanation for pragmatic deficits in autism. Nonetheless, much pragmatics research has focused on the ToM account, including Relevance Theory.

2.2.1 Theory of Mind and Figurative Language

Theory of Mind refers to the ability to infer the mental states of others, and to use these attributed mental states "to predict and explain the behavior of others" (Cummings 2013). Also referred to as "mind-reading" or "metarepresentation," ToM is relevant for pragmatic studies because it focuses on the role of inferences in communication. Inferences are required for everyday conversations and figurative language, both considered to be areas with which those with ASD struggle. The Theory of Mind account was first associated with autism by Baron-Cohen et al. (1985). Loukusa and Moilanen review twenty such studies and emphasize that those with ASD have "deficiencies in pragmatic comprehension and inference abilities, but not an inability" (2009:900).

The first study that connected Relevance Theory and autism was from Happé (1993). It compared the comprehension of simile, metaphor and irony among individuals with autism and neurotypical individuals. Participants were grouped by their level of ToM ability, as determined by false-belief tasks. Those with first-order ability could infer what a story character was thinking. Those with second-order ability could infer what a story character thought someone else was thinking.

One of Happé's conclusions was that first-order ToM ability was required for metaphor comprehension. However, in a 2005 replication of the study, Norbury found that first-order ToM was not necessary for metaphor comprehension. With a few adjustments to Happé's comprehension task, Norbury found that semantic ability was a better predictor of success on the metaphor task (2005). Wearing (2010) summarizes the differences and limitations of the studies. She maintains that some ability to infer mental states is required for metaphor comprehension, although it need not be first-order ability as determined by a false-belief task.

Happé also found a strong correlation between irony comprehension and the ability to pass a second-order false belief task. Thus, more ToM ability is required to comprehend irony than metaphor. This correlation was confirmed by others such as Kaland et al. (2005), who tested adolescents with Asperger's Syndrome. Kaland et al. also developed the more contextually-demanding *Stories from Everyday Life* to be a more appropriate challenge for adolescents (2002). The tests confirmed that individuals with HFA/AS were more successful with inferences about physical states than mental states.

In the research reported in this thesis, I used materials from Norbury (2005) and Kaland et al. (2002). I will later compare the results of my participants to theirs. I will not

7

attempt to settle the unresolved research issues mentioned above, but the tests will be a

starting point for discussing the linguistic capital of the students.

2.2.2 Studies of Individuals with Autism Spectrum Disorders in Context

Many studies have noted the limitations of written comprehension tasks for

determining the pragmatic abilities of individuals, whether neurotypical or those with

ASD. An approach that emphasizes the deficits of a population may not notice their

abilities. In a review "Autism: Cognitive Deficit or Cognitive Style?" Happé (1999:216)

comments,

> It is not difficult to find things that people with autism have difficulty with—
>
> indeed, most autistic people also have general learning difficulties and low IQ.
>
> However, I will argue in this review that progress in understanding this disorder,
>
> and its implications for normal development, will arise chiefly through
>
> exploration of what people with autism are *good* at.

Though Happé was reviewing literature focused on lower-functioning individuals with

autism, her point about investigating abilities applies just as well to the HFA and AS

populations. Therefore, others such as Bartlett et al. have recognized the "potential value

of investigating real life interactions rather than performance on standardised language

assessment results" (2005:204).

Bartlett et al. (2005:204) state that much autism research has been based on the

"cognitive theories" mentioned above as executive dysfunction, ToM, and weak central

coherence. They write,

> [These] cognitive theories have attempted to explain certain characteristics of AS
>
> in terms of the individual's internal functioning (i.e., how s/he 'thinks' or 'sees

8

the world'). However, social context appears to be crucial in understanding how these characteristics manifest themselves in everyday interactions.

Bartlett et al. explore "potential directions for investigation that may provide a broader view of language, for example those based on a sociolinguistic perspective" (2005:204). The three potential directions they explore are 1) Conversational Analysis, 2) the Children's Communication Checklist (Bishop & Baird 2001) and 3) an approach based on Halliday's Systemic Functional Linguistics (1994). They note the strengths and limitations of each option. I will summarize the first two options to provide background for my methodology (chapter 3).

First, though conversational analysis includes the context of interaction between speakers, it is often difficult to obtain natural conversational samples. This can be especially difficult in a clinical setting or if the participants are not familiar with the researcher. The ethnographic study of Ochs et al. (2004) avoided these drawbacks. They logged 381 hours of video and audio recordings of 16 children from 8 to 12 years of age with HFA and AS. They recorded "everyday interactions with family members at home, in transit to and from school, and with peers and teachers at school" (2004:149). The study focused on the children's ability to take perspectives according to measures such as conversational turn-taking.

Second, the strength of a pragmatic checklist is that it makes possible a discussion of particular linguistic phenomena of interest, often in a quantifiable way. For example, it is possible to count cohesive references in a text and compare patterns among participants. The work of de Villiers et al. exemplifies this. They developed a scale for measuring conversational impairment based on a Systemic Functional Linguistics

paradigm (2007). For their analysis they used 46 semi-structured conversations between a researcher and children with HFA between the ages of 10 and 14. Regarding the limitation mentioned above, de Villiers et al. (2007:1378) expand:

> The context of a semi-structured conversation, though parallel to a clinical interview, is more restricted and artificial than a casual social setting. A less formal task might yield different conversational styles. It is, in addition, difficult to generalize about children's "typical" communication using 10-min samples with the same adult.

In another article, de Villiers et al. (2010) give further insight into the methodology and limitations of recording and transcribing conversational data for assessing pragmatic ability. They have also made helpful distinctions among specific pragmatic processes and the comprehension abilities required for each. For example, they separate 1) primary pragmatic processes such as slot filling and disambiguation from 2) secondary pragmatic processes such as metaphor and conversational implicature and 3) secondary pragmatic processes requiring higher-order inferences such as irony (2007:313).

Similarly, Chevallier et al. (2010) confirm that there are "important differences between pragmatic phenomena of different sub-types" and "that some aspects of pragmatics are spared in at least a subgroup of individuals on the autism spectrum" (2010:1114). They call for future work "to carefully characterise this subpopulation, the nature of their social deficit, and the scope of the pragmatic processes they can readily deal with" (2010:1114). Chevallier et al. (2010:1114) also emphasize the need for more naturalistic contexts:

Another important issue for future research will be to determine to what extent these findings apply in more naturalistic contexts, especially given that some authors have demonstrated that individuals with ASD perform differently in explicit experimental settings and in more naturalistic situations (Klin et al. 2000). In particular, it would be worth exploring whether people with autism spontaneously produce scalar inferences in conversational contexts.

While this study will not explore scalar inferences, it will examine conversational uses of a variety of other phenomena employed by this subgroup with pragmatic competence, even prowess.

2.2.3 Summary

In the past few decades there has been progress in the study of communication in autism research. The need remains for exploration of communication among individuals in natural, rather than clinical settings. This is particularly true with regard to individuals who excel in supposed areas of pragmatic weakness.

Additionally, further sociolinguistic research may complement the existing literature that emphasizes individual pragmatic comprehension abilities. Relevance Theory is useful for this task as it integrates the cognitive and social contexts.

This thesis contributes by discussing linguistic capital in social contexts involving students with ASD, something that has not been explored. The context of peers in a lunchtime classroom provides an opportunity to examine this in a sociolinguistic way.

CHAPTER III

METHODOLOGY

3.1 Participants

3.1.1 Recruiting

I recruited as subjects the students with ASD who are in my two high school classrooms designated for students with ASD. The students usually spend time in these classrooms before and after school, during lunch, and during study hall periods. These students with ASD are not marginalized from neurotypical students; they take general education classes with neurotypical students throughout the day. The purpose of the classrooms designated for students with ASD is not widely known to neurotypical students, except for friends of the students with ASD who are invited to hang out in the classrooms.

First, parents were contacted and informed of the study. Interested parents and students signed the consent and assent forms. I also obtained consent forms from faculty who work with the students and share the room at lunchtime. As a faculty member, I was also present—as a participant—in the classroom at lunchtime. Students and faculty remained participants during the months of May and June 2014.

3.1.2 Age and IQ Scores

Student information such as age and IQ scores were accessed in the individual educational plans (IEPs) of student participants for whom I had parental consent and

student assent. The 14 student participants ranged from to approximately 15 to 19 years old.

The IQ scores available for different students ranged according to the date they were last assessed and the particular test used.[2] Nevertheless, among the 14 students filmed, Verbal Comprehension IQ scores ranged from 71 to 126.

3.2 Data Collection

This study is based on both quantitative and qualitative data.

The quantitative data collection included a metaphor comprehension test and a story comprehension test. Each test came with a built-in scoring key. The test question portions were conducted in unoccupied classrooms or conference rooms as private testing areas.

The qualitative data consists of lunchtime audio-visual recordings. These provided naturally-occurring conversations. I recorded the audio and visual data with the built-in camera on my laptop computer.

3.2.1 Metaphor Test

I used the comprehension test from Norbury (2005), based on that of Happé (1993). It evaluates the comprehension abilities of students concerning synonym, simile, and metaphor. It consisted of 18 questions, with six from each category. A sentence

---

[2] Including: WISC-IV, WISC-III, WASI, WIAT-2, WIAT-III, Stanford Binet-V, Stanford Binet-IV, Leiter International Performance Scale-Revised

stimulus was given, followed by the correct option mixed in with three foil choices. The list of all questions is in appendix A.

3.2.2 Story Test

I used the *Stories from Everyday Life* comprehension test from Kaland et al. (2002). It was applied to evaluate students' ability to make inferences about physical states of objects and mental states of characters in a short story. For example, to test the ability to make an inference about a physical state or event, one question asks why a woman in the story withdrew money from the bank. The story mentions that her washing machine broke down and that she has to buy a new one soon. The hearer must infer she withdrew money from the bank to purchase a new washing machine. In the same story, to test the ability to make an inference about a mental state, one question asks why the woman tells the robbers that her wallet is in her coat pocket, where it really is, rather than lying to them and telling them it is in her purse. The hearer must infer that she assumes the robbers will think she is lying, and therefore she performs the double-bluff.

The mental inferences thus demonstrate theory of mind capability, which is significant for pragmatic language comprehension and use. Though 26 stories were available in the full test, I chose only four, which I applied to each student. This allowed for a small evaluation of the ability to make mental inferences, though it did not allow for a full comparison with results obtained by Kaland and others, who applied the full 26 story version (Kaland et al. 2002, 2005, 2008).

I modified some of the vocabulary and phrasing of Kaland's stories to make them more suitable for American students.

3.2.3 Lunchtime

There are two classrooms where the students with ASD usually eat lunch. Only one was used for recording lunch conversations, while the other was an area for non-participants. A 'Filming in Progress' sign was placed on the door of the room where filming took place, and I verbally reminded non-participants that they could instead use the room across the hall. I also sent a letter to parents of non-participants warning of when I would be filming, reassuring them that non-participants would be able to be in the room across the hall, out of camera range.

Video recordings were taken over the course of four weeks in May and June 2014. Lunches in the classroom were recorded 16 times. Most sessions were approximately one hour, although some were approximately 30 minutes. My laptop computer was set in the corner of the room, where I recorded through the built-in camera on the computer. A blank piece of paper was set over the computer screen so as to cover the image of what was being recorded, to not further distract students. Students were aware of filming and on a handful of occasions would speak to the camera or make mention of the recordings. Overall, the presence of the camera did not greatly alter the typical fare of lunchtime conversations in the classroom.

Originally, part of the aim of filming during lunch was to observe the frequency of uses of simile, metaphor and irony by both students and faculty. It was assumed that irony, requiring a richer theory of mind than metaphor and simile, would be more difficult for individuals with a ToM deficit. Thus, one goal was to compare student performance on the individual testing with performance in naturally-occurring

conversations at lunch. Additionally, I wanted to compare the frequency of use of different forms of figurative language among teachers compared with students.

However, the frequency count approach fell short for a few reasons. First, at lunch time, the humble audio and visual recording capabilities of my computer were not adequate for to cover the variety of overlapping conversations happening in different parts of the classroom. This made transcription difficult, and I was not able to do reliable frequency counts of metaphors. Second, from what could be determined from the recordings, similes and metaphors were used quite sparingly. It was difficult to compare their use among students and groups, as students and teachers did not consistently eat in the classroom at the same time from day to day.

Fortunately, there was a consistent wealth of other relevant linguistic and social phenomena. These were more interesting, especially because they have received little coverage in the literature. They became the focus of the thesis, as will become evident below.

CHAPTER 4

RELEVANCE THEORY

An overview of Relevance Theory will help to frame the discussion of simile, metaphor, irony and other forms of communication used in the tests and recordings.

4.1 Basics of Relevance Theory

Relevance Theory is a theory of communication that emphasizes the role of inferences in communication. This is in contrast to the traditional code model of communication. According to the code model, the meaning a speaker wants to communicate is simply encoded into a linguistic form, which, when uttered and received by the hearer, is then decoded to receive the meaning of the speaker. But this model does not adequately represent what occurs in communication. It is not a simple input-output system where hearers receive 100% of the meaning from an utterance every time. Meaning is often lost, inferred, expanded, etc. There is much more to communication than simply encoding, transmission, and decoding.

Rather than inputs, Relevance theory speaks of ostensive stimuli. Stimuli such as utterances or gestures are OSTENSIVE when they communicate that they are intended to inform the hearer. Relevance Theory sees communication as the giving of evidence of an intention, to be inferred from the linguistic meaning of the utterance and the context. The inferential process is guided by relevance, as defined below (Wilson and Sperber 2012:38):

Relevance is defined as a property of inputs to cognitive processes. The processing of an input (e.g., an utterance) may yield some cognitive effects (e.g., revisions of beliefs). Everything else being equal, the greater the effects, the greater the relevance of the input. The processing of the input (and the derivation of these effects) involves some mental effort. Everything else being equal the greater the effort, the lower the relevance.

As ostensive stimuli are processed they produce COGNITIVE EFFECTS, which are the revisions of thoughts or beliefs provoked by the ostensive stimuli and context. These cognitive effects may bring new information to the hearer. Alternatively, they may strengthen, weaken, or eliminate existing assumptions.

To illustrate, imagine a man and a woman standing in a bar at a distance from each other. The woman is staring in the direction of the man, and he interprets her gaze as an ostensive stimuli. This brings cognitive effects of new information to the man that she might be interested in him. She applies lipstick and walks towards the man. This strengthens his assumption that she is interested in him. However, these assumptions are weakened as she walks past the man, and then finally eliminated as she kisses her husband, who has just arrived at the bar. That is how cognitive effects work.

The centrality of relevance is evident in the two principles of relevance (Wilson and Sperber 2012:6).

Cognitive Principle of Relevance

Human cognition tends to be geared to the maximisation of relevance.

Communicative Principle of Relevance

Every act of overt communication conveys a presumption of it's own optimal relevance.

Wilson and Sperber note that "these principles are descriptive rather than normative"; this allows general predications about communication, as well as exceptions (Wilson and Sperber 2012:6).

Not all acts of communication are fully ostensive, or overt. For example, a speaker may choose for her utterance to be less than fully relevant to the hearer or over-hearers, such as in manipulation, deception, and inside-jokes. Kevin Sparks calls this *scalar ostension*, the concept that "a speaker could be more or less obvious as to how much she intends her stimulus to be relevant to a particular audience" (Sparks 2012:32). This is particularly the case when there are multiple audiences, such as during a court hearing where the interlocutor is but one audience, while all of those watching the hearing are a second audience. In this thesis, scalar ostension across multiple audiences occurs when student A wants to tell a joke to student B about student C, all while within earshot of student C and the teacher, with varied ostension toward each hearer or over-hearer.

Since communication involves risk, there is a subconscious, instantaneous calculation of cost that speakers and hearers undergo when speaking and listening. The speaker calculates how to craft his utterance so that it will achieve the expected benefit in his hearer. The hearer interprets the utterance based on how much effort is required. This calculation of cost occurs in all communicative activity as the:

Presumption of optimal relevance (Sperber and Wilson 1995:266-78):

(a) The utterance is relevant enough to be worth processing

(b) It is the most relevant one compatible with the communicator's abilities and preferences.

19

The presumption of optimal relevance is always at play for both the speaker and hearer. The hearer processes the utterance with the:

Relevance-theoretic comprehension procedure:

(a) Follow a path of least effort in computing cognitive effects. In particular, test interpretive hypotheses (disambiguations, reference resolutions, implicatures, etc.) in order of accessibility.

(b) Stop when your expectations of relevance are satisfied. (Wilson and Sperber 2012:276).

This comprehension procedure is consistent for all types of ostensive communication, whether speaking, signing, or reading, and applies to both explicit and implicit meaning, as discussed below.

4.2 Explicatures and Implicatures

Relevance Theory distinguishes what is made explicit by an utterance and what is implied or implicated. Sperber and Wilson use the terms explicatures and implicature. An EXPLICATURE is "a proposition communicated by an utterance… if and only if it is a development of a logical form encoded by the utterance" (Sperber and Wilson 1995:182). An IMPLICATURE is "a proposition communicated by an utterance but not explicitly" (Sperber and Wilson 1995:182). The following example illustrates the difference between explicatures and implicatures.

 (a) John: Do you want to go out tonight? How about Addison's?

(b) Scott: Possibly. Keep in mind I've got these old man ears.

(c) John: As in you don't want to go somewhere loud?

20

An explicature of Scott's uttering, "Possibly" is that he possibly wants to go out with his friend on the night of the utterance. It is the fully-propositional form of the utterance, enriched by fleshing out the ellipsis. The hearer thus decodes and infers to complete the explicature.

An implicature of Scott's utterance, "Keep in mind I've got these old man ears" is that Scott has bad hearing. This results by inferring the contextual information that old men are likely to have bad hearing. The additional contextual information that Addison's is a loud establishment allows further implicatures, such as that Scott hesitates to go to Addison's because he would not be able hear his friend well, dialogue would be difficult, and they might enjoy the evening more in a quieter establishment. None of these implicatures are explicitly stated, but rather they are implied by the combination of utterances' explicature(s) and contextual information.

Both explicatures and implicatures may be STRONG or WEAK. The strength of an explicature depends on its degree of explicitness. The alternate response "I would possibly like to go with you tonight to Addison's" is more explicit, hence stronger, than "Possibly." The utterance is closer to the explicit content of the speaker's meaning, and therefore the explicature is stronger. The stronger the explicature, the less responsibility the hearer has for inferring the speaker's intended meaning.

The strength or weakness of an implicature also depends on the degree of indeterminacy of an utterance (Wilson and Sperber 2012:17). The hearer must make inferences about the speaker's implicated premises and propositions from the utterance and the context. There is some risk involved in supplying these premises, but the speaker intends for the hearer to do so. The principle of relevance applies here as the speaker

assumes that his utterance, though indeterminate, is sufficient for the hearer to comprehend, given the right context and range of possible implicatures and propositions of which it is composed.

In Scott's utterance, some possible implicated premises (a-c) and conclusions (d-f) are that:

(a) Addison's is a loud establishment.

(b) Scott has bad hearing like old men do.

(c) People with bad hearing do not like noisy restaurants.

(d) Scott hesitates to go to Addison's because he will not be able hear his friend well

(e) Dialogue will be difficult.

(f) They might have a more enjoyable time in a quieter establishment.

John's inferred conclusion(s) will depend on which implied premises he selects. John grasped Scott's intended meaning of hesitating to go somewhere loud on account of his hearing. Since many of the implicatures are similar, it might not make that much difference in their communication if John were to choose one rather than another. Sperber and Wilson summarize, "The greater the range of alternatives, the *weaker* the implicatures, and the more responsibility the hearer has to take for the particular choices he makes" (Wilson and Sperber 2012:16).

The notion that inferences are always being made in communication might leave the impression that there is too much freedom for unrestrained, misguided inferences. Yet the principle of relevance accounts for how interlocutors can regularly understand each other. Even when explicatures and implicatures are weak, communication is efficient. Furthermore, as humans like to minimize the amount of processing effort and maximize

the cognitive effects, it is not surprising that we do not speak explicitly all the time.

Consider the processing effort required by a more explicit response:

(a) "I am possibly interested in going with you, John, to Addison's tonight, but I have bad hearing similar to that of an old man and I fear that I would not be able to hear you in the noisy restaurant and our experience would not be enjoyable."

The processing effort required to handle such an explicit response is even more costly than inferring many parts in from a less encoded version. It should not surprise us then, that weak communication is ubiquitous. While explicit communication plays an important role, weak communication makes possible a wide range of effects that go beyond explicit communication. This applies to everyday conversation as well as to metaphor, to which we now turn.

4.3 Loose and Literal Language

Another way communication may be more or less explicit has to do with broadening and narrowing of lexical entries. Just as determining the meaning of an utterance requires decoding and inference, so it is with lexical units as small as words. To illustrate,

(1) John: Do you want to go out tonight?

(2) Scott: I've got these old man ears.

(3a) Aaron: Aerial silks is the sexiest sport in the world…

(3b) Aaron: …and I manage to make it look like a shaved grizzly bear falling down a mountain.

In these examples, words are used in a way that broadens or narrows the meaning from their lexically encoded sense. In (1), if the typical lexically encoded meaning of *to go out* means simply to leave one's house, it is here narrowed to give the sense of going

23

somewhere, especially to a bar, out with friends. In (2), Scott does not strictly claim to have old man ears. Instead, the lexical entry *old man ears* is broadened from its meaning of the ears of an elderly person to being hard of hearing. In (3a), the sport is probably not sexually attractive, but rather *sexy* in the broadened sense of exciting or appealing in some other way. In (3b), Aaron does not look exactly like a shaved grizzly bear falling down a mountain while performing aerial silks, but perhaps in a loose sense he lacks the strong majesty that befits such a creature or sport.

These examples depict a range of phenomena (synonyms, metaphor, informal use, hyperbole and simile), but the interpretative procedure is the same. In each, the hearer must use context and make inferences as to the speaker's intended meaning. Contrary to classical notions of a divide between literal and figurative language, there is not a special interpretive procedure for metaphor or any other phenomena. Different linguistic theories label uses as literal, figurative, loose, approximate, or metaphorical. Wilson and Sperber state that "these notions may denote regions on a continuum rather than sharply distinct categories" (2012:23).

Relevance Theory's unified account for these loose uses of language employs *ad hoc* concepts.[3] During the comprehension of an utterance, the hearer comprehension

---

[3] There is a development in Relevance Theory's account of metaphor. The earlier account explained things in terms of implicatures; the more recent account explains things in terms of *ad hoc* concepts. Either

process is mutually adjusting the possible explicatures and implicatures until the hearer's

expectations of relevance are satisfied (Wilson and Sperber 2012:21). The concepts are

constructed for the particular utterance, and hence are labeled *ad hoc*. In (1) above, the

hearer's response to John will hinge on the concept he constructs for GO OUT*, that is

whether he takes it to mean hanging out with friends at a bar or going on a romantic date.

Inferring the meaning of (1) might be easier than (3b), because the simile in (3b)

"consists of an *ad hoc* concept that is characterised by its inferential role and not by a

definition, and moreover this inferential role is left to the hearer to elaborate" (Wilson

and Sperber 2012:22). Still, even with imaginative similes or metaphors, *ad hoc* concepts

are constructed for comprehension just like any other utterance. In the case of (3b), the *ad*

hoc concept SHAVED GRIZZLY BEAR FALLING DOWN A MOUNTAIN* would weakly imply

that which lacks its befitting majesty, is deprived of its masculinity, etc. Its relevance

comes from the combination of the implicatures of the *ad hoc* concept with the contextual

information about Aaron and the sport (Wilson and Sperber 2012:121). Thus, like the

shaved grizzly bear Aaron is deprived of his masculinity in some way.

4.4 Standardization, Creativity and Conventionality

Though *ad hoc* concepts are constructed nearly instantaneously for each

utterance, after repeated use by an individual or group of individuals, such broadened

---

way, both implicatures and *ad hoc* concepts will figure in the variety of linguistic phenomena appearing in this thesis (See Clark 2013:266ff).

senses may become standardized, and lexicalized. The role of conventionalization applies to mundane uses like (a) above as well as to metaphors.

Metaphors may be more or less creative. Even an initially creative metaphor may over time become conventionalized. The broadened sense becomes lexicalized, at which point lexical lookup is less costly than inferential processing to derive relevant cognitive effects. Vega Moreno (2007:112) puts creativity and conventionality on a spectrum, as given below.

We may assume that loosely used expressions (e.g. metaphorical expressions) range from the very creative to the rather conventional or standardised. At one end of the spectrum of creativity we can place the poetic metaphors of great poets. At the other end, we may place a number of dead (or nearly dead) metaphors which have arguably developed an extra sense in the language ('the *leg* of the table', 'the *foot* of the mountain', 'a syntactic *tree*', etc.).

Conventional metaphors are useful for everyday communication. Vega Moreno writes, "Formulaic expressions arise naturally in every language and in every culture, showing the tendency of language users to store ready-made expressions and use them to communicate" (2007:219). Standardized forms communicate simple ideas to get a point across quickly. Still, there is a value to the creative uses that suggest an array of weak implicatures. They may convey complex ideas and allow the hearer more freedom in personalizing the relevant implicatures. Yet, the hearer's interpretation is not left to completely arbitrary associations, because the inferential process is guided by the "subtlety and directionality of weak implicatures" (Wilson and Sperber 2012:120).

Pilkington has labeled the cognitive effects produced as a wide array of weak

implicatures as *poetic effects* (Wilson and Sperber 2012:118; Pilkington 2000). Wilson

and Sperber note that "Although metaphors are neither necessary nor sufficient for the

creation of genuine poetic effects, they are particularly well suited to this purpose, for

several reasons" (Wilson and Sperber 2012:119). Among these reasons are the following:

1) The *ad hoc* concepts from some metaphors can involve broadening and narrowing at

the same time. 2) The relevance of the metaphor depends on the weak implicatures and

the hearer's freedom to infer them. 3) Multiple readings of or extended reflection on the

metaphor may prompt a wider array of implications that make the metaphor more

enjoyable (Wilson and Sperber 2012:122).

Wilson and Sperber emphasize that metaphor is not unique in allowing for poetic

effects, nor does it require its own theory, but that, "on the whole, the closer one gets to

the metaphor end of the literal-loose-metaphorical continuum, the greater the freedom of

interpretation left to hearers or readers, and the more likely it is that relevance will be

achieved through a wide array of weak implicatures, i.e. through poetic effects" (Wilson

and Sperber 2012:122). This thesis will build on the notion that there are a range of

linguistic phenomena in addition to metaphor that make use of poetic effects.

Additionally, I will argue that skill in creating and deriving poetic effects can be a mark

of prestige, particularly in an environment where not everyone is able to do so.

4.5 Wharton's Showing-Meaning_{NN} Continuum

Among the ways inferential communication may be stronger or weaker, Tim

Wharton has emphasized the non-verbal varieties of ostension. This accounts for the

ways that gesture, tone of voice, prosody, and facial expressions make communication

27

stronger or weaker. Such behaviors "affect the outcome of the interpretive process, guiding the hearer to a certain range or type of conclusions" (Wharton 2013:251). Wharton places non-verbal communication and linguistic utterances on opposite ends of the showing-meaning$_{NN}$ continuum[4]. Showing behaviors are considered natural, while linguistic utterances are considered non-natural meaning (meaning$_{NN}$). For example, a teenager rolling his eyes while saying "whatever" is using both showing and meaning$_{NN}$ to contribute to the meaning of his utterance. For more complicated combinations, "the continuum provides a theoretical tool which allows us to conceptualize more clearly the observation… that ostensive stimuli are often highly complex *composites* of different, inter-related behaviours which fall at different points between 'showing' and 'meaning$_{NN}$'" (Wharton 2013:252).

The continuum also allows us to see how, over time, some things from showing end of the continuum may shift towards the meaning$_{NN}$ end, becoming more linguistically productive. An example is the interjection "yugh" over time becoming the adjective family "yucky," "yuckier" and "yuckiest" (Wharton 2013:252).

Wharton's continuum is relevant for this thesis as there are times when the creativity exhibited by a speaker or required by a hearer involves prosody, tone, gesture, facial expressions, and so forth. These ostensive stimuli contribute to the implicatures and explicatures required in irony and parody.

_____

[4] Wharton's continuum is drawn from Grice's article "Meaning" (1957).

CHAPTER 5

QUANTITATIVE TEST RESULTS

The two comprehension tests used in this study were designed to provide quantitative data. The test recordings, however, also evidenced the students' thinking processes as well as their abilities with a variety of pragmatic phenomena. This chapter will give the test results and follow with a sampling of the various comments made during the tests that evidence pragmatic abilities. Thus, my focus is not the quantitative results themselves, but the patterns and limitations that emerged during testing. These patterns and limitations prepare the way for the discussion in chapters 6 and 7.

5.1 Metaphor Test Results

5.1.1 Patterns

The metaphor test revealed a few patterns. Among the 13 students tested, the success rate for metaphor comprehension questions was slightly lower than for synonym and simile. The table below shows this.

Table 1. Metaphor Test Results

Item	Answers Correct	Total Questions	Percentage
Synonym	73	78	93.5%
Simile	66	78	84.6%
Metaphor	63	78	80.8%

Admittedly, I used a sample of only thirteen participants and did not have a neurotypical control group. For comparison, Norbury (2005) had groups of 30 students,

between 8 and 15 years old. By contrast, the 13 students tested in this study were between the ages of 15 and 19. The original study by Happé (1993) included approximately 18 individuals with autism ranging from age 10 to 28. However, as noted before, I used Norbury's modified version of Happé's test materials, so they are not entirely comparable. At the very least, the present numbers give an indication of the competencies of the participants, from which to compare their use of other figurative language in the story tasks and lunchtime conversations.

Some individual questions posed problems for participants. This may have been due to the novelty of the simile or metaphor. For example, of 13 students, six failed to correctly identify the simile "Pat has very long and smooth hair. It is (a) like spaghetti, (b) fuzzy, (c) like a brush, (d) like macaroni." Three students opted for 'fuzzy,' and three students opted for 'like a brush.' Meanwhile, no student failed the question "Our new school is very big and I always get lost. It is (a) a maze, (b) a map, (c) a string, (d) a web." It is understandable that students had more success with conventionalized metaphors than creative ones. As quoted in the last chapter and here repeated, Vega Moreno explains:

> We may assume that loosely used expressions (e.g. metaphorical expressions)
> range from the very creative to the rather conventional or standardised. At one
> end of the spectrum of creativity we can place the poetic metaphors of great poets.
> At the other end, we may place a number of dead (or nearly dead) metaphors
> which have arguably developed an extra sense in the language ('the *leg* of the
> table', 'the *foot* of the mountain', 'a syntactic *tree*', etc.) (2007:112).

30

Further, the fact that the most missed question was a simile rather than a metaphor cautions against a hasty generalization that metaphors are always more difficult than similes.[5]

5.1.2 Limitations

Compared to the tests done by Happé (1993) and Norbury (2005), I had fewer students, I did not have a control group, and I did not use as many different copies of the test. The test appears to be better suited for younger or lower functioning individuals with autism, as many of the simile and metaphor choices are simple or conventionalized.

As mentioned above, some metaphors were quite conventionalized, so although they were metaphors in one sense, they did not really test the ability of students to infer weak implicatures, which is understood to be what makes it difficult for many with autism to interpret metaphors.

Again, metaphors presented in isolation may not be the best means for assessing subjects' metaphor comprehension. The Norbury test does provide some contextualization for the metaphor questions. For example, each included an initial sentence to give some context, such as "Our new school is very big and I always get lost." However, even with this added contextual element, the test questions are still

---

[5] Wearing (2012:212) writes, "One might expect, however, that similes involving less straightforwardly literal comparisons (e.g. 'His voice was as cold as the Arctic snows': Wilson and Carston, 2006, p. 427) would be as problematic as their corresponding metaphors—this is another matter that stands in need of empirical investigation".

formulaic, especially when presented in succession in a testing situation. In everyday conversation there are many other contextual factors that constrain the interpretation of a metaphor, and much of this is missing in a stripped down task. For this reason, the lunchtime recordings help to complement the metaphor task.

5.2 Story Test Results

5.2.1 Patterns

Kaland's *Stories from Everyday Life* includes 26 story tests. However, I chose four stories and read the same four to each participant. I used the stories to test the comprehension of double bluff, irony, lack of consideration for others' feelings, and mistaken intentions. This small selection was due to time limitations and sometimes because of the limited attention span of participants. Nevertheless, I found some patterns that are similar to those of Kaland (2002, 2005, 2008). He tested 21 individuals in the Asperger group from ages 10 to 20 (approximately), while I tested 13 students between the ages of 15 and 19.

The participants in this study answered almost all physical inference[6] questions correctly. Kaland also reported better scores on the physical inference test among individuals with Asperger's Syndrome. The table below shows success rates for physical and mental inferences in the students I tested.

---

[6] For examples, see section 3.2.2.

Table 2. Story Test Inference Results

Item	Correct (2 or 1.5)	Partly Correct (1)	Incorrect (0 or 0.5)	Total Questions	Percentage Correct
Physical Inference	50	2	0	52	96.2%
Mental Inference	12 and 5	8	11 and 16	52	32.7%

Overall, participants did not score high on mental inferences. Some students, of course, scored higher than others on all test items. The scoring methodology is based on a 0-2 scale: 0=incorrect, 1=partially-correct, and 2=fully correct. Fully correct responses require students to form a conceptualization of a character's mental state and make use of propositions therein. As this is a is a partially subjective evaluation for raters to make, two raters evaluated each response for the sake of inter-rater reliability. In the case of a disagreement, the mean was taken. As is evident from the chart, the co-raters disagreed on 21 of 52 questions.[7] One possible influence on this outcome was that I

The small sample size—only four stories per person—and the discrepancies of the co-raters make the mental inference results suggestive but unreliable. Nevertheless, the story tests proved to be fertile ground for listening to reasoning of students, as well as their own demonstrations of pragmatic ability and frequent humor. This will be demonstrated below.

---

[7] By contrast, Kaland et al. reported co-rater disagreement for only six out of 984 mental inference responses (2008:76).

5.2.2 Limitations

Admittedly, the results given for mental inference are not sufficiently reliable to support solid conclusions. Fortunately, the goals of this thesis do not hinge on the results of my abbreviated application of the story comprehension test. In this section I will describe a few other limitations I confronted in the story testing procedure.

As discussed in the literature review, chapter 2, ratable comprehension tasks have their limitations. First, repeated testing revealed that the story tests are limited compared to natural conversations. Just as the metaphor task is a stripped down form of the way people naturally use metaphor or loose language in everyday speech, so too these stories are only imitations of real life situations and the inferences that a hearer would need to make to comprehend them. Even though I modified the vocabulary and stories from the Norwegian/British English to American English, they are still scripted stories rather than natural conversations.

Second, though the scripted stories are impoverished in this way, the readers had some freedom in how they read the story. To be consistent, I read each story out loud even though students could have read them on their own.[8] Still, it is impossible to assure that I read each story with the same tone of voice, facial expressions, and prosody for

---

[8] In fact, one student requested a few times to read them on his own, saying that he could read them in a more dramatic voice. I let him re-read them at the end.

each participant. This possible lack of consistency in reading is sensed most acutely when these same behaviors play into the students' comprehension of a text.

To illustrate, consider the importance of prosody. In the story testing irony comprehension, Adrian says of his messy brother "Mother, Tom has as usual done a splendid job tidying up." When I read this ironic punch line, I used neither an obvious deadpan tone, nor the overly enthusiastic tone associated with parodic irony.[9] I could have delivered the punch line in a much lower pitch or louder volume, to more obviously signal the irony. Because I chose a mildly lower pitch, comprehension results for irony were divided. A few students described Adrian as being, "sarcastic," "ironic" or "facetious." Others assumed that Adrian was lying to his mom or covering for his brother, for fear that their mom would discipline him if he had not cleaned his room. Some students suggested both, that it could have been either lying or irony. Thus, prosody makes a difference, but the written test in itself did not constrain what type of prosody should be used.

Fortunately, this weakness of the testing procedure sheds light on the ambiguity that may characterize an ironic utterance. Prosody may make an utterance more or less obviously ironic. In everyday life, a speaker chooses how blatant he wants to make his

---

[9] Chapter 6 will discuss the difference between the traditional deadpan tone of voice often used in irony and the overly enthusiastic tone of voice that is used in parodic irony. (See also Wilson 2013:45-46, 47-48, 51)

ironic statement. His choice is also influenced by the desire to preserve effort. He may

opt for a mildly lower pitch rather than a greatly lower pitch simply because it requires

less physical effort. Whatever the motivation of speaker prosody, in the testing situation,

weaker prosodic signals may more closely replicate everyday speech and better test

inference abilities.

A third limitation of the story test is when the test question assumes one

background context that is not most relevant to the participants. For example, one

question tests the comprehension of mistaken intentions. Tina asks Charlotte, "Can you

carry my bag?" Charlotte says, "Yes, I can," but does not do so, presumably because Tina

did not phrase the question, "*Will* you carry my bag?" To test the inference of mistaken

intentions, this question assumes that participants are familiar with individuals who

misunderstand the difference between "can you" and "will you."

However, the most relevant contextual background for the participants may more likely

be individuals who *stubbornly avoid* responding to "can you" requests even though they

understand them as "will you". One participant mentioned that this was his experience

with multiple teachers. When he asked, "Can I go to the bathroom," the teacher would

respond, "I don't know, *can* you?" It is likely that other participants also had this

experience. However, the story did preempt this mistaken line of reasoning by including

the description, "Charlotte is a kind and helpful friend, especially when she understands

that somebody needs her help. But, she doesn't say so much." Still, although the stories

are designed to test one thing, they may evoke a different, more relevant background in

the hearer, which makes them appear to fail to understand the tested phenomenon

36

A fourth limitation of this testing procedure was my familiarity with the participants. I was more familiar with the students with whom I typically work than with the others. This may have affected the freedoms certain students felt to give more joking answers rather than explicitly focusing on the question. One student joked about the character, Charlotte, saying, "She's being a little snot." It is difficult to tell if he truly thought she was being stubborn rather than misunderstanding a friend's request, or if he said it in keeping with our tendency to make each other laugh. That familiarity with participants could influence their range of freedom in responding further reflects the role of social motivation for utterances, even during comprehension tasks.

5.3 Use of Figurative Language in Reponses

The comments of students during testing can be just as enlightening as their actual responses to test items. The students made a few noteworthy uses of figurative language both in their responses and during the testing. I will list some here following the pattern of MacKay and Shaw (2004). They studied figurative language in students with ASD from about 8 to 11 years of age from the perspective of speech act theory. They included qualitative data from the participants such as idiosyncratic responses, metacommunicative expressions and the use of figurative language. I will follow their precedent and include some examples below.

One student, while not making the correct mental inference to recognize mistaken intentions in a story, used a very creative simile, reproduced below.

(1) Researcher: So then, if she likes to help people, how come she doesn't help Tina here?

Student: How am I supposed to know? I'm not Charlotte, now, am I?

R: [laugh] So are you saying that she's lazy, or something else?

S: She's just a dick to her friends.

R: [laugh] Yeah, but she's kind and helpful.

S: I said '*to friends*.'

R: Oh. All right

S: It doesn't mean she can't be helpful to complete strangers

R: I see…

S: She's most likely as much of a dick to friends as Clark Kent is a dick to   dogs whenever he throws a tennis ball

R: How does he throw it? I don't remember.

S: Superman.

R: [laugh]

S: He's Superman so whenever he throws a ball even its lightest, it won't go all the way across the world.

In this example the student offers an unsolicited creative simile ("as Clark Kent is…"). It is impossible to know whether he had heard this simile previously or whether he came up with it himself. This student only missed one of the six simile test questions. At the very least, this example shows the student's ability to use a creative simile to make his point humorously, even if he struggled to see that the character in the story mistook the intentions of her friend.

Concerning the same story, another student gave a witty response using ellipsis, reproduced below.

(2) Researcher: And then, how come, why doesn't Charlotte stop to take Tina's bag? Student: It's that she *could* hold it but she never said she *would*.

R: Ok. This is kind of weird, right? Charlotte's supposed to be kind and helpful, so why would she do such a thing?

S: 'cause she, 'cause the question was not worded the way she might understand it.

R: All right.

S: She really should have been stating the fact that she could hold it, but she was not asked if she *would* hold it.

R: Do you know anybody that does something like that?

S: I occasionally do [changed facial expression]

R: Oh really? Really, like what do you mean?

S: Well… I *could* tell you…

R: [laugh]

When the student says "Well… I *could* tell you…" he communicates that he does not want to continue the discussion. He emphasizes the word "*could*" to allude to their relevant discussion of the difference between "could" and "would." He uses ellipses of the implied "but I won't" following "I *could* tell you." He thus gives weak implicatures and allows the researcher to infer that it is time to end the discussion. This is supported by the contextual information manifest to both the researcher and student: they had reached the last comprehension question at the end of the tedious metaphor and story tests, and therefore could stop at any time.

Another student used a variety of interpretive uses of language to convey the attitude that he felt the stories and questions were too easy and a waste of his time. After quickly completing the metaphor test, he said sarcastically, "That was thoroughly baffling." After the ending of the first story, in which a lady is robbed, he responded in a

deadpan ironic tone "Tragedy." While turning to the second story in the packet, with a smile he asked, "Did you write these masterpieces, Mr. B?" implying that they are not finely crafted works of literature, but contrived stories for a research purpose. Hoping to keep him interested for the third story, I introduced it with, "It's gonna be 'The Wrong Orange Juice.' Everybody's worst nightmare." He responded, "I'm already excited." After one story, he ironically stated "What a conundrum" to a problem that was minimal. After the last story, the student joked with understatement, reproduced below.

(3) Researcher: Well, that's all I have for you. Unless you saw another story you wanna do. We can just, we can just dive right in.

Student: [smiles, grabs left arm] I've somehow got work to do that's even more important than this.

All of the examples from this student count as echoic use, uttered with dissociative attitudes towards the thoughts they embed. The student distances himself from the representation in his utterance, that the tests are difficult or entertaining. Some are more typically sarcastic than others. When he says, "That was thoroughly baffling" it is with a more annoyed tone than "I'm already excited." As will be later explored in further depth, irony tends to be playful, while sarcasm is aggressive (Muszynska 2012:240).

Some considerations of politeness influence this student's language choices. Since he was working with a teacher he respected and for whom he had volunteered to help with the study, he chose not use language that was blatantly sarcastic or hurtful. Instead, irony was the appropriate form to use to assert his intelligence, indicate that the questions were below him, while at the same time maintaining social proximity with the researcher. To have spoken blatantly sarcastically to the researcher would have been much less polite.

Other students were less concerned about offending the researcher, or at least had differing notions of what was polite or not. To give some idea of the breadth of the spectrum of politeness among student respondents, consider the example from another student at the very start of the tests.

(4) [Student sitting with arms folded]

Researcher: Ok, so do you want to do the stories first or the 'Finish the Sentence'?

S: I don't care. [monotone, disinterested]

R: Let's do the 'Finish the Sentence.' Ok, now you might think these are boring, but you just tell me what—

S: You do realize I'm already bored.

R: [laughter]

This could be categorized as banter, where the aim is to use "seemingly impolite utterances in order to mark emotional closeness and solidarity between the interlocutors" (Nowik-Dziewicka 2012:245).

Another student took a different approach expressing his boredom in pretense, although the pretense was a reflection of some of his true attitude.

 (5) Researcher : Ok, next story is called 'Tidying the Room' [hands paper to student]

Student: [grabs paper, frowns angrily and pretends to throw the paper against his arm, then onto the ground. Picks up paper.]

R: Here's how it goes

S: I *hate* this! [slaps paper with hand and makes playful upset noises]

This blunt response, though tempered by his pretense of joking, is different from the banter and sarcasm from the two previously mentioned students. To express dislike for the exercise, some students made an effort to use the implicatures of weaker

41

communication, while others were more direct. One possible reason for this difference in responses is the differing motivations of students to maintain the relationship with the researcher. Another possible reason is the differing motivations to prove oneself to be smarter than the target audience for the tests or not. Thus, the second two students were less concerned with appearing more intelligent than the intended test-audience, and less concerned with showing respect towards the researcher.

These responses help to demonstrate the variety of student participants involved as well as the variety of mechanisms at their disposal. These linguistic choices are also socially motivated in a way that a mere cognitive examination might not catch. An investigation of the differing levels of the students' metarepresentative abilities might lead to predictions about whether they would use irony or not. However, this would leave out the social factors of status and relationship that motivate how a student chooses to respond. The findings from the lunchtime recordings will be useful for showing how the notions of social status and relationship influence communicative choices.

CHAPTER 6

FINDINGS FROM LUNCHTIME RECORDINGS

To investigate pragmatic abilities and interpersonal interactions, this chapter will give examples that illustrate the students' ability to use mechanisms such as echo and pretense. The emphasis is to sort and explain how the mechanisms work, while chapter 7 will sort and explain how the social groups work.

Just as there have been challenges in identifying the subgroups of autism (see chapter 2), there are challenges in categorizing linguistic phenomena. In the case of autism, one challenge is to identify supportable criteria for distinguishing subgroups, while noting consistency and commonalities across the groups. The Fifth Edition of the Diagnostic Manual chooses to account for the diversity of autism with a spectrum rather than various subgroups (such as Asperger's Syndrome, Kanner's Syndrome, Rett's Syndrome, and PDD-NOS). Meanwhile, researchers such as Dr. Amaral seek to determine appropriate subcategories for the diversity in autism based on observable neurological data (see chapter 2). This reshuffling aims not to revolutionize, but to offer the most explanatory account of the data.

Figure 1. One View of the Autism Spectrum[10]
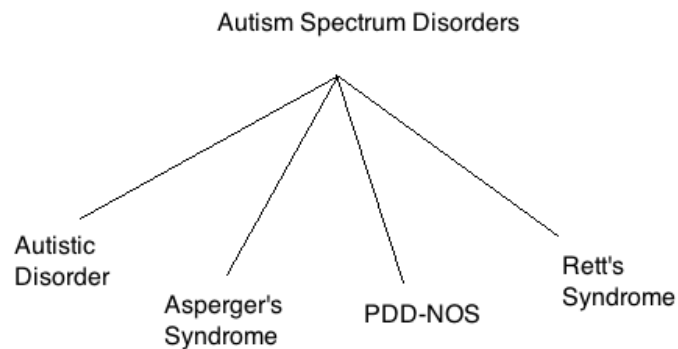
Similarly, there are challenges when categorizing and labeling linguistic

phenomena. A common option is to have a broad category like "figurative language" and

then to identify subgroups such as simile, metaphor, irony, and up to scores more.

---

[10] Based off of a figure found at http://www.myaspergerschild.com/2007/08/autism-spectrum-disorders-pervasive.html

Figure 2. One View of Figurative Language
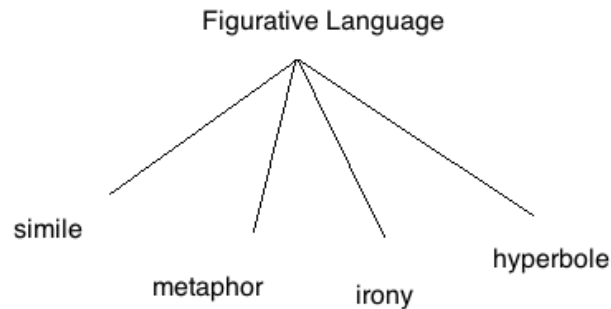
Alternatively, Relevance Theory chooses to account for the variety of communication with one ostensive-inferential process for all communication. Within that, there are spectrums with fuzzy boundaries, such as loose-literal and showing-meaning$_{NN}$ (see chapter 4). Further, one may approach categorization in terms of mechanisms such as lexical broadening, lexical narrowing, and ad hoc concepts. In this chapter I will focus on echo and pretense, mechanisms that relate especially to the study of irony comprehension in autism.

6.1 Background for Irony

Some examples from the lunchtime conversations demonstrate that some students with autism can indeed produce and comprehend verbal irony. Because verbal irony is defined in a variety of ways in both theoretical literature and common use, it will be helpful to present some definitions for a working account of irony. In this study, I will rely on the echoic account of irony, the history of which is well summarized in Wilson (2013:41).

Verbal irony has been commonly defined as saying one thing and meaning the opposite. Special interpretive procedures were presumed for metaphor as well as irony. In

contrast, Relevance Theory holds that there is one interpretive procedure for all communication. Therefore, Sperber and Wilson introduced the echoic account of irony in 1981. A few years later, Clark and Gerrig (1984) proposed the pretense account of irony as an alternative. In 1984, Sperber compared the echoic and pretense accounts, defending the echoic account but acknowledging that pretense can be combined with echo.

Wilson gives three distinctive features for verbal irony according to the echoic theory: 1) a 'mocking, scornful or contemptuous' attitude towards a thought, 2) the normative bias, and 3) the ironical tone voice. (Wilson 2013:43). Consider the example, "What lovely weather," uttered on a rainy day. The speaker attributes a scornful attitude to the echoed thought that the weather is nice. The normative bias is that sunny weather is lovely. A speaker may deliver the utterance with the deadpan tone of voice to indicate the scornful attitude, but such prosody is optional (Wilson 2013:47).

Echoes may be of thoughts, utterances, or other contextual information. Yus (2000) has compiled a list of seven types of contextual sources that may be used in ironic echo. They include: 1) general factual information about the world, 2) information from the physical setting of the conversation, 3) the speaker's nonverbal communication, 4) biographical data about the speaker, 5) mutual knowledge of recent events or actions, 6) previous utterances, and 7) lexical/grammatical choices that give linguistic cues that the utterance is ironic. Yus points out that often multiple contextual sources may be echoed, a leading one with supporting ones (2000:12).

Echo may take a variety of forms, depending on the attitude attributed to the utterance. Wilson (2013:46) writes,

The attitudes that can be conveyed in an echoic utterance range from acceptance and endorsement of the attributed thought… through various shades of doubt or skepticism… to outright rejection…. According to the echoic account, what distinguishes verbal irony from other types of echoic use is that the attitude conveyed is drawn from the dissociative range: the speaker rejects a tacitly attributed thought as ludicrously false (or blatantly inadequate in other ways).

Though a range of attitudes may be attributed to an echo to form irony, there are limits to what counts as irony. Wilson and Sperber summarize, "No irony without an ironical attitude, no ironical attitude without an echoed attributed thought as its object" (2012:141). This distinction is important, because linguistic literature frequently labels as irony utterances that do not use echo. Wilson (2013:54) comments on this tendency,

I have argued that of the broader range of phenomena commonly treated as forms of irony, hyperbole, understatement, rhetorical questions and various forms of jocularity or teasing are not inherently ironical, and involve a rather disparate range of mechanisms. … By contrast, I have suggested that jocularity, banter and teasing may be non-echoic forms of parody or pretence….

Thus, the mechanisms deployed in utterances are as important as the classification of utterances.

6.2 Sorting the Spectra

The confusion of distinguishing and labeling irony and related phenomena calls for sorting. Wilson's approach distinguishes between phenomena and mechanisms; she writes, "The goal of a theory is to identify *mechanisms* and see what range of phenomena they explain" (2013:42). The phenomena are the utterances that receive labels such as

47

irony, hyperbole, etc. The mechanisms are what make such phenomena possible. Wilson

focuses on echo and pretense, while suggesting that there are others that produce

phenomena often mistaken for irony.

Often the phenomena that make use of a particular mechanism come on a

spectrum. I will give a few examples of phenomena witnessed in the classroom to be able

to prise apart the different mechanisms occurring in each. Focusing on echo and pretense,

I will explore irony, parody, sarcasm, banter, and then finish with some comments on the

theme of creativity versus conventionality.

6.3 Echo versus Pretense

Pretense and echoing are separate mechanisms, though they may be used together.

Pretense is commonly used in parody, which exploits "resemblances in behaviour: the

speaker simulates a speech act, mimicking the tone of voice, form of words, etc. that

someone genuinely performing that speech act might use" (Wilson 2013:51). While

parody plays on likeness in behavior, echoic use plays on the likeness of the echoed

thought or utterance. Thus, both mechanisms may be used together, as in PARODIC IRONY.

(Wilson 2013:51)

Prosody helps to signal the echo and pretense. Wilson (2013:51) differentiates

between REGULAR IRONY, which uses the deadpan tone of voice, and parodic irony, which

uses the overly enthusiastic tone of voice of pretense and mockery. Regular irony is

"characterised by a flat or deadpan intonation, slower tempo, lower pitch level and

greater intensity than are found in the corresponding literal utterances… and is generally

seen as an optional cue to the speaker's mocking, scornful or contemptuous attitude"

(Wilson 2013:45). Meanwhile, the overly enthusiastic tone may be described as "an exaggerated tone of enthusiasm or even worship" (Sperber 1984:135).

This recalls the discussion in chapter 4 of how prosody influences whether speaker meaning is weak or strong. The list of options so far includes: the deadpan, the overly enthusiastic tone, various subtler shades in between, and even omitting completely the prosodic cues. Wharton's (2009:46) discussion of "showing" behaviors in weak communication allows for prosody that gives weak implicatures. Irony makes use of weak implicatures, and part of what gives its punch is the lack of obviousness. If the tone of voice is crucial in keeping an ironic utterance's implicatures weak, an overly obvious sarcastic tone could reduce the ironic effect. Wilson also asks whether each of the distinct tones of voice might "be associated with different conditions of use and give rise to subtle differences in interpretation, which would be worth exploring further" (2013:51). The following examples demonstrate different conditions of use for the prosody and mechanisms.

6.3.1 Irony (Parodic)

Example (6) is a mixture of echo and pretense.

> (6) [Student retrieves his backpack from classroom, walks in a nerdy shuffle
> towards the camera, pauses and turns to look at the camera, and says] 'Hello, yes,
> I'm using the figurative language' [in an exaggerated nasal, nerdy voice, irony]

Here, the student uses the mechanism of pretense. He alters his physical demeanor in walking towards the camera. He alters his tone of voice in talking to the camera. He is not parodying a particular nerdy individual, but nerds in general. It is perhaps an exaggerated nerdy version of himself, a humorous persona he occasionally assumes.

At the same time, his utterance (and possibly even his physical demeanor) is echoic. He echoes the thought that he is being studied for his use of figurative language. He already knew that I would be studying figurative language as I had made this clear in the permission forms and in person with him and his parents. So the thought was manifest to both the student and the viewer.

He attributes a mocking attitude to the echoed thought, mixing it with parody. He includes the article 'the' in 'the figurative language.' This makes it sound like an elusive thing that researchers would look for in an exotic population. His attitude mocks this thought, and he thereby implies that figurative language is indeed obvious in the classroom. At the same time, 'the figurative language' sounds like overly technical jargon, which fits the nerdy persona he has assumed. He mocks the thought that the students are peculiar research subjects by pretending to be one. Further, the act of walking up to the camera and looking into it is an ironic act in itself. In what is understood to be naturalistic research, there is a mocking attitude in blatantly talking to the camera, and thereby the researchers.

Taking all things together, this communicative act is made up of a variety of verbal and non-verbal elements that all contribute to both the attitude and the proposition that the student intends to express (Wharton 2009:12). There are both showing and meaning$_{NN}$ behaviors (see chapter 4). His tone of voice, blank facial expression, walk, slouch, lean, and gaze into the camera, all contribute to his persona, attitude and meaning. It is worth noting that he holds his walk and slouch for about one second after his utterance, before switching back to his regular walk and posture away from the camera.

This indicates that he was indeed "in character" for the duration of his utterance to the camera.

6.3.2 Parody

Parody uses the pretense mechanism, which may be used separately form irony, as in example (7).

(7) [Student A is talking to faculty while students B and C are sitting nearby, overhearing Student A. Student A has been talking about sports for at least one minute straight]

A: That's the thing about the Giants. They don't get a lot of... They did it when they won the series way back in 2010...

[B and C make exaggerated, unintelligible nonspeech vocalizations stereotypical of those with lower-functioning autism]

C: [leans in to B, in a stereotypical autistic voice] (unintelligible)... baseball game...

Students B and C convey a mocking attitude towards the behavior of the student who is pontificating about sports. It is not irony, as they do not attribute a mocking attitude to an echoed thought. Rather, they use the pretense mechanism to mimic an observable behavior. The mocking students share the mutually manifest thought that the student pontificating about baseball is exhibiting behavior characteristic of a 'lower-functioning' person with autism. By exaggerating the voice and making it more stereotypically 'autistic' and unintelligible, they imply that the sports fan is annoying or unintelligent.

51

Showing behaviors play a role in this parody. The degree to which their mocking speech is unintelligible and stereotypical indicates the degree to which they think the student is lower-functioning. Wharton gives a similar example of a girl saying, "You're late!", for which her "tone of voice and facial expression calibrate the degree of anger her audience understands her to feel and to be expressing as part of her meaning" (2009:12). Thus, the students use pretense and tone of voice to convey part of their meaning.

6.3.3 Irony (Regular)

There were also uses of regular irony.

(8) [Three faculty and two students at lunch table, gathered around the laptop watching *Star Wars*]

Student A: Such beautiful CG[I] for 1976 [irony]

Faculty A: Well, are you sure it's not the remastered one? [missing the irony]

Faculty B: It is. Yeah.

Student A: That was the funny.

Faculty A: Oh, sorry.

Faculty B: 'Cause all those little things, I don't think they were there. [referring to CGI embellishments]

Student A: It was all completely necessary [irony]

In this case, student A uses at least two instances of regular irony. Though *Star Wars* was released in 1976[11], the version being shown on the laptop was obviously the remastered version with added computer-generated imagery (CGI). Thus, Student A's first use of irony echoes the incorrect thought the original release included beautiful CGI. His mild mocking of the thought implies that it is the updated version, not the original, and that such CGI did not exist in the 1970s.

The second use of irony is when he states, "it was all completely necessary." The thought being echoed is that the CGI was necessary. His mocking attitude indicates his opinion that additions are superfluous. In both instances of irony, his attitude is that the statement he is making is false.

Context and prosody play a role in these instances of regular irony. Faculty A fails to catch the irony because he is on the other side of the computer, thus missing out on the contextual information that would have been obvious had he seen the CGI.

Faculty A also struggles to interpret Student A's prosody. Student A traditionally uses a more mild, monotone voice, and there was only a slight pitch increase on "CG[I]" in his utterance. He gives a deadpan delivery, perhaps even omitting prosodic cues altogether. Next Student A says, "It was all completely necessary" with approximately the same prosody as his first ironic utterance.

---

[11] Actually, it was released in 1977. Perhaps the digital effects were applied during 1976.

Student A's statement "That was the funny" is neither echo nor pretense, though it has similarities. He delivers his utterance with flat intonation at a perceptibly lower pitch level, similar to the tone used for irony. However, his mocking attitude is not towards a thought, but towards a teacher. The student mildly mocks the teacher for missing a simple instance of irony, not by parodying him but by teasing him. The student uses simpler language ("the funny") to imply that, if the teacher did not understand the instance of irony, he might not understand the word either. This is also a good reminder that neurotypical teachers may also struggle with ironic language and grasping weak implicatures.

6.4 Irony versus Sarcasm

The terms irony and sarcasm are often used interchangeably; some, however, distinguish them. This situation demonstrates the difficulties of categorization mentioned at the beginning of this chapter. I will discuss this challenge of categorization and then give an example that shows two attitudes attributed to echo—regardless of what label they receive.

Relevance Theory considers sarcasm to be a strong form dissociative echoic use, making it a subtype of irony. Muszyńska (2012:241) argues that sarcasm may or may not involve echoic use and proposes the following definition:

> Sarcasm - A form of communication which expresses a negative attitude towards a person, group of people or society in general by manifesting dissatisfaction and intellectual superiority; usually through the witty use of language, language play or indirect insult.

54

Muszyńska aims to account for utterances for which a speaker does not dissociate herself from the thought, but expresses her own negative attitude in line with the thought (2012:232). She argues that sarcasm is not a subtype of irony, but that there is often blending of their forms and features. Muszyńska proposes the irony-sarcasm continuum according to the following chart.

Table 3. Typical Features of Irony and Sarcasm (Based on Muszyńska 2012:240)

Irony	Ironic sarcasm/Sarcastic irony	Sarcasm
attributive	attributive	hurtful
echoic	echoic	
playful		involves a victim, most often a specific one but can be generally anti-social
speaker expresses a dissociative attitude	speaker expresses a dissociative attitude	aggressive
speaker's intention may not be clear	speaker's intention may not be clear	unambiguous: the meaning communicated ostensibly matches the implied meaning
speaker doesn't have to take responsibility for negative implicatures	speaker doesn't have to take responsibility for the negative implicature; can opt out	
	can be used for bonding or for establishing a position of power	used for establishing a position of power
		serious, not playful

It is debatable whether or not sarcasm deserves to be defined as separate from irony. Muszyńska admits that it is difficult to find examples of what she calls non-echoic sarcasm, and that even then, the boundaries are fuzzy (2012:232). The effort to classify sarcasm as distinct from irony may mirror the unfruitful effort of past decades to

distinguish Asperger's Syndrome from high-functioning autism (see chapter 2 and section 6.1).

Whether or not non-echoic sarcasm exists, one can still appreciate the range of functions from irony to harsher sarcastic echo. Muszyńska (2012:241) summarizes,

What is important in this is that sarcasm and irony have different functions and that pure sarcasm is a form of witty verbal aggression as opposed to ironic playfulness. Most typically they are used together, since the humor connected with irony, and the lack of responsibility it gives as a non-serious form, mitigate the negativity of the sarcastic critique, making it more socially acceptable.

Example (9) illustrates a range of echoes, from playful irony to aggressive sarcasm.

(9) [2 faculty and 3 students at the lunch table, gathered around the laptop watching *Star Wars*. Student A is on the other side of the table, unable to see the laptop screen]

1:Student A: Sounds like *Family Guy*.

2:Faculty A: No, it's *Star Wars* actually. It's not *Spaceballs* either.

3:Student B: *Spaceballs* was the best *Star Wars* movie [irony, joking]

4:Faculty A: Ha. Not the best spoof, it was the best *Star Wars* movie, period. [irony]

5:Student A: [quoting *Spaceballs*, Sandurz & Helmet concerning a metaphor] 'Are we being too literal about this?' 'No. He said, he said, he specifically said, 'Comb, the desert.' So we're combing the desert.' 'Did you find anything?' 'No, sir.' 'Did you find anything?' 'No, sir—''

6:Student B: [to friend Student C, loudly, monotone, sarcastic] It's funny because they say 'We ain't found shit.'

7:Student A: -- 'did you find anything?' 'Man, we ain't found shit.'

8:Student B: Cue laugh track [monotone, irony]

I will highlight Student B's three different uses of echo in lines 3, 6 and 8

The utterance in line 3 is playful irony. Student B echoes the thought that *Spaceballs* is similar to *Star Wars*. This humor builds a bond with Faculty A, who also responds with playful irony.

The utterance in line 6 is towards the sarcastic end of the continuum. It is aggressive and targets Student A as a victim for being slow. Student B loudly cuts off student A before he can finish the quote. Speaker B aims to establish his own position as a better conversationalist, and being more adept at making witty comments.

The utterance of line 8 has an attitude somewhere between those of line 3 and 6. It is aggressive in that he targets Student A for taking a long time to quote a movie that everyone already knows. However, line 8 is not as aggressive as line 6 because he uses a milder tone, lower volume, and does not interrupt Student A as in line 6.

Student B's utterances demonstrate the range of echoic attitudes and functions. Muszyńska (2012:242) summarizes the benefits of this flexibility:

> The speaker can choose to be more or less direct when expressing critique— from direct insult (including foul language), through hostile sarcasm, to mild, teasing irony. The choice is also constrained by how these behaviors are perceived socially. Not surprisingly, then, ironic sarcasm is used most frequently. With its vagueness and playfulness it is the least risky way of expressing dissatisfaction.

It would be inappropriate for Student B to be any more direct than in line 6. If he were to insult the student in front of a teacher more directly, he would get in trouble.

6.5 Echo, Banter, Pretense

In brief, banter is defined as mock impoliteness used to express solidarity among friends. For example, "Welcome to the party, *idiot*," said as a greeting to a friend, would

rightly be understood as communicating solidarity. Banter uses the pretense mechanism for solidarity, while examples (6) and (7) showed how pretense is used in parody and parodic irony. Pretense serves different functions, partly based on the context of the relationship in which it is used. Thus, Nowik-Dziewicka (2012:250) offers this fuller definition of banter:

> Banter occurs in the context of small social distance, power equilibrium and mutual liking between the interlocutors when the speaker *pretends* to be saying something impolite in order to reinforce the close relations between the interlocutors.

Though banter may appear in a pure form, it may also be coupled with echoic use including irony. Nowik-Dziewicka (2012) gives examples of different combinations. I will provide a few examples to illustrate how the students use banter at lunchtime.

> (10a) [Student A has brought two large pizzas to share with the other students, while he has his own personal small pizza. A faculty member helps other students find plates for their pizza]
>
> Student A: I don't even have to get a plate. *Pffft* [sticks tongue out, directs farting noises toward his friend, Student B]
>
> (10b) [Faculty A approaches to grab pizza]
>
> Faculty A: Thank you, Student A. I'll take back some of those things I said about you… just some of them, though.
>
> (10c) [Student C goes to grab a slice of pizza.]
>
> Student C: Hello, Student A.
>
> Student A: This one's mine. Don't even look at it. [stern, clutches personal pizza]
>
> Student C: [moves head closer and briefly stares at A's pizza]
>
> (10d) [Student D approaches the counter to pick a piece of pizza, eyes Student A's personal pizza]

58

Student A to Student C: You know, somebody, *somebody*, is going to get a piece of mine, that has "*Student A*'s personal pizza" written on it [referring to Student D as he is getting pizza]

These examples show a variety of functions of banter.

In (10a), Student A taunts his friend with farting noises the fact that he does not have to get his own plate. The pretend boasting works as banter given the small social distance, the balance of power, and mutual liking among interlocutors.

In (10b), Faculty B pretends to be impolite by offering a half-hearted reconciliation, just for the sake of receiving pizza. The balance of power is not as equal as it is among Students A and C in (10a) but, since Faculty A has an close relationship with the student, his utterance counts as banter.

Example (10c) demonstrates how non-verbal behavior serves banter. Student A pretends to be impolite in a few ways: hoarding his pizza, not responding to Student C's greeting, and warning him not to look at his pizza. Student C's joking ostensive stare at the pizza shows that he has correctly understood the element of pretense in A's banter. C responds by starting at A's pizza. This is non-verbal banter and reinforces solidarity with A.

In (10d), Student A considers Student D outside of his circle of friends. As seen in (10a) and (10c), A considers C his equal, Student A continues to pretend to be overly possessive of his pizza. This mock impoliteness is directed obliquely to Student C, although Student A is referring to Student D. It is a blurrier case, but highlights the role of social distance in banter; Student A pretends to be impolite to his friend, but he is indeed rude to an outsider.

6.6 Creative versus Conventional/Standardized

The spectrum of creative versus conventional is well known in discussions of simile and metaphor (Pilkington 2000; Vega Moreno 2007). However, it also applies to other forms such as echoic use. This connection has been hinted at in previous studies. Muszyńska (2012:240) comments on the connection between conventional irony and metaphor in the following sentence and accompanying footnote:

> Similarly, conventionalized, obviously insincere phrases have such a clear speaker's meaning that the amount of perceived irony is minimal. [*Footnote*: As Sperber and Wilson say about some of these common examples like *fat chance* or *a precious lot:* "the 'ironical' interpretations have become grammaticalised to such an extent that it is hard to imagine these utterances communicating more regular 'literal' meanings" (Sperber and Wilson 1998, 287). They refer to them as idiomatic ironies and compare them to dead metaphors. They are assigned a standard interpretation through [an] automatic interpretative routine and lose their ironic force (Sperber and Wilson 1998, 288).] (Muszyńska 2012:240)

Just as metaphors may become thoroughly conventionalized, so an ironic utterance may become so conventionalized that it no longer requires additional processing effort to produce cognitive effects. Though easier to understand, they no longer prompt the hearer to derive weak implicatures. These "poetic effects", associated with metaphor (see chapter 4), also apply to echo, pretense and banter. Like metaphor, these phenomena may be more creative or conventional. There are a few different ways that this may happen.

First, echoic use allows conveying a variety of attitudes toward an utterance. Attitudes from the dissociative range are used in irony. Some attitudes are used more frequently than others, resulting in conventional, prototypical irony. Alternatively, attributing less common attitudes to an echoed thought makes for creative echoic use.

Second, adding pretense to echo can make irony more creative. We have already seen examples illustrating the difference between regular and parodic irony. In Wilson's (2013:51) words, "[T]here are indeed cases where pretence and irony combine, but far from being prototypical cases of irony, they are characterised by a tone of voice quite distinct from the regular 'ironical tone of voice'".

Third, the tone of voice itself may be more conventional or creative. Using the regular ironic tone of voice can be conventional and blatant. Individuals may seek to be creative by using more subtle dissociative tones, as I did while delivering the ironic punch line for the story tests. Some students understood the irony even though I used a creative tone. Other students did not understand it, though they might have if I had used a more obvious tone (see section 5.2.2).

The creative versus conventional spectrum takes on much more significance at lunchtime, where the students group themselves based on the ability to produce and comprehend less prototypical and more creative and group-defined uses of echo, pretense and banter.

6.7 Summary

The lunchtime recordings reveal a variety of irony-related phenomena. Though comprehension studies often test prototypical irony, the natural use in context reveals a spectrum of phenomena using the echoic and pretense mechanisms. There is a fluidity

among each spectrum, as uses are prototypical or more indeterminate. The less

prototypical uses are similar to creative metaphors in that they yield poetic effects. They

are enjoyable for some, while obscure for others. This social division will be the focus of

chapter 7.

CHAPTER 7

SOCIOLINGUISTIC ANALYSIS

Chapter 6 discussed some pragmatic mechanisms the students use as they interact at lunch. This chapter will give a sociolinguistic analysis of three trends related to the students' pragmatic competence. First, that creative and weak language are preferred sociolinguistic variables at lunchtime. Second, that students use these variables to form and maintain cliques, and distance themselves from and discriminate against other students. Third, that creative utterances become standardized over time, effecting small-scale language change in the classroom. To begin, I will explain the notion of linguistic capital, the framework for most of the sociolinguistic analysis in this chapter.

7.1 Linguistic Capital

To speak of linguistic *abilities* or *resources* (Bartlett et al. 2005) is more courteous than saying *deficits*. Better still is *linguistic capital*, because it speaks to the value of linguistic resources in a social context.

Bourdieu (1991) was the first to speak of linguistic capital and linguistic marketplaces. In his book *Politeness*, Watts (2003:147ff) summarizes Bourdieu's thinking about linguistic capital. Bourdieu lists material, cultural, and social resources, and linguistic resources. Individuals acquire and exchange these resources in different social fields, or marketplaces. For example, a school is a cultural marketplace; a friendship group is a social one, and, of course, these may overlap. Language is used in all social interaction, so it applies to all marketplaces. Language is a form of cultural and

social capital, but one may also look at language in terms of linguistic capital and linguistic marketplaces.

Watts (2003:151-152) gives a few examples of what he considers to be language resources that amount to linguistic capital. He suggests "control over language varieties…and/or skilled use in a variety of communicative media". To his list I add control of pragmatic phenomena: echo, pretense, ad hoc concepts, and weak communication, and perhaps others.

Watts (2003:151) summarizes the differing comparative value of goods. He writes, "Some goods will have a relatively low value in the market while the value of others will be relatively high, and the values that are symbolically placed on those goods (including money) can fluctuate considerably over time". Some students place a high value on control of pragmatic phenomena. It shapes the language that is used and valued within their social groups, as manifested in their interactions at lunch.

7.2 Preferred Sociolinguistic Variables at Lunch

People use language not only to communicate, but to shape their identity and show group membership. Janet Holmes (2008:137) lists vocabulary, pronunciation, and grammatical patterns as elements of language variety by which different social groups may be distinguished. William Labov (1972) famously demonstrated that pronunciation of the post-vocalic [r] was a marker of social status in New York City.

This inventory of sociolinguistic variables can be expanded by the rich conceptual framework that Relevance Theory provides. The use of pragmatic mechanisms can mark status as much as pronunciation and vocabulary. Though many mechanisms may

contribute to social status, I will focus on the characteristics of creative and weak communication.

7.2.1 Originality (Creative over conventional)

This section will show how students who use creative language have a higher social status than those who use only conventional language. It will end with an example of each type.

In chapter 5 I mentioned that the metaphor task tested conventional metaphors, and that most students passed. Therefore, it did not separate the students into social groups. But creative use did. Creative use is most associated with ad hoc concepts in metaphor (see chapter 4). Yet creative use also applies to echo, pretense, and banter. Each may be more or less creative.

Creativity is valued for a few reasons. The high intellectual ability needed to produce and understand instances of creative use gives it value. Additionally, creative uses are often funny and therefore more enjoyable. In a social context where creativity is scarce, the symbolic value placed upon creative uses rises.

The students who consider themselves to be higher-functioning value creativity and openly disdain conventional utterances and those who deliver and enjoy them. These students express scorn when another student simply quotes a funny video. When a handful of students with similar interests in video games, fantasy and movies gather at lunch, sharing and repetition is loud and frequent. Students often want to share a Youtube video or internet joke that others have already seen multiple times—even if the person they invite is not interested. Some of these repeated internet jokes, or memes, require little creativity because it is simply copying something. They are uncreative retellings.

For this reason, the students who value creativity have coined the exclamation "Nice meme!" It is delivered in a stereotypical autistic voice as a parody of a lower functioning individual who is too easily entertained. Though it likely originated spontaneously while mocking an unoriginal online joke, it is now a shorthand way of mocking unoriginal material and those amused by it. A sampling is given below.

(11a) [Two students are browsing the web, when their friend returns]

Student A: (unintelligible speech in mock, stereotypical autistic voice)

Student B to C: Student C, you missed out on our 'nice meme' run

Student B: [browsing web] There was a great meme. Nice meme. Nice meme. Looks to be a great meme. Memes all around.

(11b) [during more web browsing]

Student A: nice meme… [to Student B] You'll never be respected as a 'nice memer' if you don't say 'nice meme,' if you don't write 'nice meme' on every single 'nice meme' you ever come across online [Students B and C laugh]

(11c) [during more web browsing]

Student B: Student A's favorite meme… wow, look how polymer it is (?)

Student A: I wanna see the crusty meme [referring to Student B's computer]

Student B: crusty [laugh] autism. [laugh]

These students creatively use echo, banter and pretense. Their joking hinges on their disdain for memes and those who truly enjoy them. They come up with many variations of 'nice meme.' Though there is repetition, it is creative. They enjoy these creative uses, as they laugh and repeat.

66

In contrast, the example below shows repetition that does not require creativity. Some students are amused by a conventional stimulus. Others are not.

(12) [Students and one faculty member are gathered at the lunch table. Student A plays crude quotes from a *Stepbrothers* soundboard on his tablet computer. Students A and B laugh loudly]

Faculty A: Hey Student A, let's choose something that doesn't have cussing on it

[Student A repeats the quotes they just listened to]

[Student A shows Student B another game on his tablet, with loud volume.]

Student B: sounds like *Saints' Row*. That's a hell of a lot like *Watchdogs*, too.

[Faculty A again tells Student A to turn it down. Two other students at the table are quiet the whole time.]

Here, two students are entertained by simple repetition of funny movie quotes, often involving cussing. The students do not themselves create new witty humor. Instead, Student B responds with more movie references. For this reason, they appear to lack the valued social status. The two other students remain silent, thereby distinguishing themselves from the students who are loudly enjoying the quotes.

These examples suggest that in this community social status is established in part by the creative or the conventional end of the spectrum. All students pass a comprehension test for conventional forms, but only the creative ones are socially esteemed.

7.2.2 Weaker Communication Allowing more Implicatures

This section will explain that weak communication is also valued and brings social status. It suggests a connection between weak communication and speaker volume.

As mentioned in chapter 3, weak communication is that which encourages the hearer to entertain an array of weak implicatures. Strong communication gives explicatures and more closely limits the implicatures a hearer may infer. A strong utterance may be easier for all to understand, but it is less rewarding when little processing effort is required. Additionally, strong utterances are not as fun as they limit exploration of potential implicatures. They are not special because anyone can understand them. The additional cognitive processing effort one might go through to find creative implicatures from an ambiguous utterance is worth it, somewhat like the pleasure of understanding difficult poetry.

In the lunchtime linguistic marketplace, the ability to produce and understand weak communication gives social status. Students who can consistently employ and enjoy weak implicatures share a solidarity. Those who are unable to do so remain outside the group. This happens for both cognitive and social reasons: cognitive because some students are unable to understand the weak implicatures, and social because those inside the group decide to not incorporate those students into their group.

It is worth noting that the strong-weak communication continuum correlates with loud versus soft volume. During lunch the students who use weak language tend to speak more quietly, and the students who use strong language are much louder in volume. There are two reasons. First, the concept of scalar ostension holds that speakers may wish to be less than optimally relevant towards certain audiences (see chapter 4). For example, it is natural to whisper an inside joke or insult to a friend while in the presence of outsiders. Second, if the majority of the students in the room are speaking loudly,

speaking softly will set one apart. In this way, choice of volume is a sociolinguistic

variable, and speaking with low volume is preferred.

7.3 Social Functions of Linguistic Capital

This section will show the way students use linguistic capital to form and navigate

groups. I begin with the terminology of Watts and Bourdieu before moving to examples.

Bourdieu and Watts provides helpful vocabulary for what occurs at lunchtime.

First, each student has his own *habitus* or "set of dispositions to act in certain ways,

which generates cognitive and bodily practices in the individual" (Watts 2003:149). The

linguistic habitus for the students is their disposition to use their linguistic capital in the

linguistic marketplace. Second, over time those in a *latent network* are revealed as an

emergent network. Watts explains, "socio-communicative verbal interaction entails the

establishment, reestablishment and reproduction of social links between the interactants,

which emerge during the interaction" (2003:154). In the classroom, some students will

establish and reestablish social links based on pragmatic competence. Third, over time

these emergent networks will establish the *politic behavior* for their group. Politic

behavior is "the linguistic and non-linguistic behavior that the group determines to be

appropriate for ongoing social interaction" (Watts 2003:276). In the emergent network in

the classroom, the politic behavior includes most prominently creative and weak

communication, and in some instances, softer volume. Consistent use of this linguistic

capital becomes the appropriate behavior for group membership.

The emergent network in the classroom maintains their politic behavior by using

linguistic capital to keep some in and others out. In other words, they use negative and

positive identity practices. Negative identity practices range from blatant discrimination

to subtle distancing of other students. Positive identity practices range from inviting students into the group, and increasing and maintaining solidarity within the group. Both positive and negative identity practices often happen concurrently, so there will be some overlap in the examples given below.

7.3.1 For Distancing from Other Students

This section illustrates the range of negative identity practices employing linguistic capital. The first example is of blatant *discrimination*, followed by two examples of social *distancing*. First, discrimination.

(13) [One faculty member and three students (including B and C, in a clique) are sitting at the table when Student A arrives.]

Student A: Pizza!

Faculty A: What's up *A*? Yeah, you can have a piece.

Student B: What? No, no.

Faculty A: [laughs] Well, I think it's there (for everyone).

Student B: *Faculty B* said he couldn't. [lying/kidding]

Faculty A: Oh really?

Student B: Yeah

Student C: It's the law.

Faculty A: Well, *A*, check with *Faculty B* first. [Student A leaves]

Student C: [smirking laugh noise]

Faculty A: Apparently there's a 'Student A' clause.

Student C: The Allied Republic of uh, Better Autisms has decided for the better well-being of everyone else and has disallowed access

Faculty A: Well—I mean, it's not like he's gonna drool on it.

Student B: No, it's not that.

In this situation, the clique excludes Student A while joking the whole time. Even if Student B is telling the truth, that Faculty B had indeed revoked Student A's pizza privileges (presumably for discipline), Student B elsewhere excludes Student A and identifies with Student C. In their group, creative humor is the politic behavior. Student C jokes that "it's the law", laughs when Student A has to check for permission, and gives a joking title for his friend group.

The emergent network also demonstrates ease with weak implicatures. They understand and them and respond in kind. Faculty A has echoed Student C's law theme by positing the 'Student A' clause. He does so in a dissociative way, implying mild disapproval of the discrimination. Student C responds with a mildly joking justification— a decision from "The Allied Republic of uh, Better Autisms." Thus, Student C grasps the weakly implied law theme and Faculty A's mild disapproval.

Their self-designation of "better autisms" is also creative and gives weak implicatures. Though it is not the first time he has used "autisms," it is creative because he chooses the ungrammatical "autisms" rather than "autistic people." It weakly implies self-deprecation for improper grammar, for identifying with students he considers beneath him, and for the impropriety of asserting superiority. The label also hints at insensitive, even offensive misanalysis, evoking the history of autism research that has not been able to do justice to the complexity of individuals on the spectrum. The related terms "autistics" or "autistic individuals" are eschewed today in favor of people-first language such as "individuals with autism." These layers of implicatures form the background of the discrimination against Student A, whether he realizes it or not.

The next example shows distancing by non-response and a nonsense answer.

(14) [Student A is looking for plates while Students B and C, in a clique, already have theirs]

Student A: Where are the paper plates? [to B and C] Where'd you guys get the paper plates?

Student B: [pause. Focuses on laptop.] yes [A ignores B, maybe thinks B is unintelligent]

Student B attempts to hide from Student A by not responding to his initial question. Student B's ignoring is ostensive, communicating disassociation from Student A. When questioned directly, B attempts to maintain a non-response by focusing on his laptop. But after A waits long enough for a response, B switches to a nonsense answer of "yes" for what was not a yes-no question. It is a creative, weaker use of language that requires that A do more inferencing than a straight answer. Whether or not A understands the implications, B has sought to keep A at a distance through his language use.

The next exchange goes further than a nonsense answer, using creative and weak language in a variety of mechanisms to ward off two outsiders, one absent and one present.

(15) [Two students are watching a live space shuttle feed on the laptop computer when their friend Student A arrives. Student C is at the table to the side, outside of their clique. Student D is not present, as he has graduated.]

Student A: really stupid… who even likes space? [sarcastic]

Student B: [changes view on computer] there, isn't that better?

A: [pretending to be impressed by it] ah, ah… *euh*! [A leans progressively closer to B and makes a the final grunt directly into his ear. The grunt mimics a filler noise that Student D frequently made.]

B: no! [leans away and laughs] Leave us, Ghost of Student D!

Student C: [loudly, different voice] spare him! Please spare him, Lord!

A: [leaning in to repeat unintelligible autism noises in B's ear]

C: please spare him, Lord *A*.

B: [pauses, ignores C, then referring to the computer, asks A] why'd the sun turn off?

Students A and B first distance themselves from the absent Student D with a pretense use of his speech filler, "euh." They had previously joked about this habit of his, so a single 'euh' was enough to trigger resonances with their mutual cognitive environments. The 'euh' grunt itself weakly implicates in a creative way. It is not a typical direct parody. Student A does not impersonate D with exaggerated repetition of 'euh'. Instead, the 'euh' is spontaneously delivered after two 'ah's in succession, when a third 'ah' is expected. The accompanying lean towards Student B's ear contributes to the indirect parody of Student D. This nonverbal behavior alludes to Student D's perceived intrusions, when he would recite stories from video games at length to uninterested audiences. The plea "No! Leave us, Ghost of Student D" further seals the distancing of D from the students joking about him.

After distancing themselves from an absent student, the emergent network rejects the presence of Student C. He attempts to join in, but he does not exhibit appropriate politic behavior. First, his utterance "Please spare him, Lord" is too conventional. It could

seemingly have been lifted from a period piece or video game. It fails to interact with the actual content of the students' utterances and shows that Student C did not actually understand who they were joking about. Thus, he had misunderstood the weak communication and evidenced a lack of linguistic capital. Second, he spoke at a much higher volume than the others. Third, his interrupting their discussion was all too reminiscent of Student D. They distanced him through silent treatment and Student B's change of topic.

It is worth noting a distinction in methods of distancing, between sociolinguistic variables and other mechanisms. Chapter 6 discussed how sarcasm can distance by being hurtful towards a victim and establishing a position of power for the speaker. This is a direct way to discriminate and distance. Parodies, insults, and jokes may fulfill a similar role. These may be conventional and have strong explicatures. In contrast, the preferred variables of creativity and weakness establish distance in a more complex ways. This is done by using linguistic capital that those outside the clique do not have. This use may be subtle or blatant. The notion of scalar ostension applies here, as at different times speakers may intend to display more or less obviously their linguistic capital. Thus, the sociolinguistic variables offer a subtle and consistent way of maintaining group cohesion, particularly when the variables themselves entail subtlety, as in the case of creative and weak communication.

7.3.2 For Maintaining Cliques

The counterpart to keeping others out of a group is maintaining solidarity within. This section provides two examples of positive identity practices including mock autistic behaviors and echoic self-reference.

74

The first example demonstrates the solidarity of the clique.

(16) [Students are gathering in the room as Faculty A starts recording. One student in the background is pontificating about video games to no particular audience, while other students are considering leaving the classroom.]

Student A: …better place across the hall

Student B: [groaning sound] but how will Faculty A research your random figures of speech?

Faculty A: ha. oh you guys don't have to. You just do wherever you're comfortable.

[Students A and B pack up to leave]

Student A: *buh, buh, buh, buh* [making mock atypical nonspeech vocalizations characteristic of those with lower-functioning autism, possibly reacting to being studied as a subject with ASD]

Student B: [makes noises similar to those of Student A] one of us, one of us [in a mock desperate voice, referring to Student C]

Students A, B and C leave the room

Student D: become one of us [in growling voice] join us, join us…

Of the many methods used here to maintain the solidarity of the clique, the most creative is the mock, atypical, nonspeech vocalizations of A and B. The sounds are characteristic of those with lower-functioning autism, not of Students A and B. Nevertheless, they adopted the noises (which they elsewhere dubbed "autisming") as an inside joke. Here, their use weakly implies both a reaction to being studied as subjects with ASD, and the fact that they themselves understand the irony of having autism and

acting more autistic. This is a case of scalar ostension, as Student A intends to be heard

mainly by Student B, but also possibly by the researcher and on the video recordings.

"Autisming" is not the only way the students joke about having autism in one

sense, yet remaining separate from others with autism. The creative self-referential use of

autistic characteristics is a common theme in this emerging social network. The following

example illustrates a similar use of an autistic label.

Example (17) [Students are talking about another class, and who will be in their

next class period]

Student A: no, I'm not

Student B: all by yourself except for [Simon]. [Gary] doesn't count as a person…

Student A: he's not even autistic; of course he doesn't count

Student B: that old blop-glod teacher with the bulbous multitude of chins is here.

[the substitute] that you like. The one who knows about gams. [gasp]. How could

you, Student A?

Faculty A: is he *old* old?

Student A: he's old enough… he's kind of like a plastic bag full of tapioca

Students A and B demonstrate solidarity by setting themselves apart from

neurotypical individuals. The description discounting another student as 'not even

autistic' indicates that Students A and B have appropriated the label 'autistic' for

themselves. This complements the instances when they distance themselves from others

that share their austistic labels, such as in (13) and (16). Thus, their use of 'autistic' and

related terms is at different times broadened or narrowed in the ad hoc concepts.

Such labels are also often instances of echoic use. Bianchi (2014) explains how an ethnic community may use a racial slur in an echoic way, attributing to it a different attitude than the one originally intended. For example, some African Americans use the n-word for solidarity within the community, rather than as a contemptuous term from without. Similarly, the label 'autistic,' while not a slur, can have a negative connotation—whether as an inadequate clinical diagnosis, or a term that fails to appreciate the diversity of the community, or as a label that misrepresents an individual. In (17), Student A projects the attitude that 'autistic' friends are worth hanging out with, while those who are not autistic will be insufficiently fun to hang out with during the next class period.

In addition to the labels, (17) shows the continuing politic behavior of creative and weak uses. "Like a plastic bag full of tapioca" is a creative simile referring to the substitute teacher. The onomatopoeic description of him as "blop-glod" weakly evokes, leaving much to the imagination. The description of him as "the one who knows about gams" is creative, and weakly implies that he is old enough to use a term for a woman's legs that Americans have not used for a few decades. Thus, the students not only have the linguistic capital to create and grasp implicatures, but they enjoy it as an expression of their group.

7.4 Diachronic Standardization of Creativity

This section will show that over time individual uses of creative and weak language become standardized not only as habitus and politic behavior for the emergent network, but also for language change within the community.

7.4.1 Wharton's O-continuum and Language Change

Tim Wharton's investigation of verbal and non-verbal communication shows that utterances "typically involve a mixture of strong and weak communication, with non-verbal behaviour generally contributing to the weaker side" (Wharton 2009:191). Wharton proposes the showing-meaning$_{NN}$ continuum to account for the "role played in ostensive communication by the inferential attribution of intentions" (2009:172). He also calls the showing-meaning$_{NN}$ continuum "an Ostensive behaviour-continuum, or an O-continuum." (2009:172).

Wharton shows that "In the O-continuum the same stimulus can occupy different points depending on how it is used" (2009:173). Language typically intended to mean$_{NN}$ may also display. Wharton gives the example of a person intending to communicate that he has a sore throat by saying in a very hoarse voice: "The moon looks beautiful tonight" (2009:173). On the other hand, displays may be used to mean$_{NN}$—in some conventional sense. Wharton gives the example in which a girl "uses a shiver [a sign that is not usually used ostensively] to mean$_{NN}$ that she does not want to stay outside (2009:174). In each of these cases, the same stimulus can be used in ways that fall in different points on the O-continuum, from showing to meaning$_{NN}$.

Additionally, the O-continuum allows for the description of language change over time. Wharton writes:

> [S]ince we have a continuum in which a given item can occupy different points depending on how it is used, we would expect some expressions to move along it as a result of being frequently used in one way or another. In historical terms, when an interjection, for example, moves far enough along the continuum, it may

become linguistically productive ('to wow', 'yucky'), and some of its uses may be properly linguistic (verbs, adjectives etc.). This suggests a historic, diachronic dimension to the continuum. (2009:174).

Wharton then continues on how the O-continuum could help explain language change.

[I]t can represent the fluidity and constant change that results in expressions coming to form part of language. In many historical linguistic accounts (Aitchison 1991, Lightfoot 1991), children are seen as converging on the simplest grammar that reflects the practice of the speech community to which they are exposed. The O-continuum could allow us to explore the idea that pragmatic factors may affect this convergence, and to see language change in terms of the micro-processes involved in the emergence of new encoded meanings. Language change might then be characterised in terms of population-scale macro-processes resulting from an accumulation of those micro-processes, leading to the stabilization of new senses. It is also plausible that interactions between cognitive and social factors might influence the direction of linguistic change (2009:174-175).

I will now show examples from the lunchtime recordings of Wharton's proposal that micro-processes result in new encoded meanings.

7.4.2 Examples of Lunchtime Language Change

In section 7.3 I indicated that the habitus of individuals spreads over time to become the politic behavior of the emergent network. At the same time, individual micro-level creative uses of language result in new encoded meanings, at least for the emergent network. These new encoded meanings may not spread on a macro-level to a population

79

outside the classroom, but they demonstrate the diachronic change in a small speech community. The most noteworthy examples are "autisming" and "nice meme."

The "autisming" noises follow Wharton's suggested pattern of interjections that become linguistically productive. The true nonspeech vocalizations are in one sense interjections. The interjection quality would still apply the first time a student performed "autisming" to mock a perceived lower-functioning individual. Through repeated uses over time its verbal meaning and form stabilized, in the emergent network. The fact that they coined the term "autisming" to describe the practice further suggests its development. Further, it was repeated often enough for it to become a prominent resource for echo and pretense, as in example (16).

As Wharton suggests, both cognitive and social factors have led to this stabilization. (2009:174). The first cognitive factor is the diversity of cognitive ability characteristic of individuals with autism. Some make atypical nonspeech vocalizations, while others communicate fluently. Some struggle with inferring intentions, while others understand and use weak implicatures regularly. Second, some students had the cognitive ability to notice these differences and think of ways to joke about them, including the mocking use of atypical nonspeech vocalizations. Meanwhile, two social factors contribute: the social setting of the variety of individuals in one place, and the desire of some to distance themselves from others. This led to the pretense use of "autisming" for distancing, as well as solidarity among those who used it in jest. Over time, it became a stabilized phenomenon in the local speech community.

The same social and cognitive factors that led to the stabilization of "autisming" led to the stabilization of "nice meme." An additional environmental factor contributed to

its stabilization, namely, the availability of technology. Computers, cell phones, and tablets facilitated access to and communication about online material. Some students enjoyed this repetition; others found it irritating.

The stabilized use of "nice meme" fits well with Wharton's proposal that one utterance may vary in its placement on the showing-meaning$_{NN}$ continuum. In the emergent network, "nice meme" is comparable to an inside joke. At the same time, "nice meme" serves as an interjection, similar to "yuck." When looking at actual memes to make fun of the memes, the students use "nice meme" in an ironic meaning$_{NN}$ sense. At other times, when making a parody of another individual, "nice meme" serves more of a displaying function. In both ways, whether as an inside joke or as an interjection, "nice meme" becomes a stabilized entry. The emergent network then uses this entry to mean$_{NN}$ and to show.

7.5 Summary

The creative and weak uses of language at lunchtime are the valued variables. Students who regularly exploit this linguistic capital find themselves to be members of an emergent network, contributors to its politic behavior. Additionally, they take part in the development of language change on a small scale. However, they may also choose to exploit such linguistic capital in a negative way to distance and discriminate themselves from those appearing to lack the capital.

CHAPTER 8

CONCLUSION

This thesis has explored the cognitive abilities and social contexts of one group of students with autism spectrum disorders. The students' responses, conversations, and behaviors display a complexity of the participants that cannot be reduced to metarepresentational deficit or even ability, much less a numbered score. In my case, to say that the participants cannot be described by numbers alone is both ironically and literally true. My initial efforts for a reliable quantitative element from four story questions were inconclusive. However, they did bring to light the nuances of the creative-conventional spectrum, weak communication as seen in prosody, and social factors that influence a student's responses even on a standardized comprehension task.

I have also sought to show that just as metaphors fall on a continuum from creative to conventional, and from giving weak to strong implicatures, so also do the uses of echo, pretense, and prosody. Testing metaphor comprehension is significantly colored by how creative the metaphors are. So also, understanding and appreciating verbal irony depends on how creative the irony is. The weak implicatures of prototypical irony are often stronger than other shades of dissociative echo.

It is well established that weak implicatures make for better poetry and humor. This study also points to the power of constructions with weak implicatures to include and exclude people in a social setting. The classroom context allows us to see the abilities for creative and weak communication as the preferred sociolinguistic variables. Further,

this linguistic capital and the habitus of individuals develop the politic behavior for an emergent network. This linguistic capital is used to keep some in and others out, and can even result in creating new stabilized lexical senses involving pretense and echo.

The findings in this study have implications for how researchers, teachers, and clinicians approach classifying and exploring linguistic abilities of individuals autistic and neurotypical. The lunchtime setting is one of many contexts that helps to remind us that linguistic abilities are linguistic capital, and that individuals and groups can have different motivations and aims for how they use their resources.

Based on my findings, I point to one area in need of further research. The field of pragmatics is developing by including sociological aspects, but there is a need for exploring the affective, noncognitive dimensions of language. Nobel Prize-winning cognitive scientist Daniel Kahneman (2011:12) writes of recent decades' work on our understanding of human behavior and motivation: "An important advance is that emotion now looms larger in our judgments and choices than it did in the past… judgments and decisions are guided directly by feelings of liking and disliking, with little deliberation or reasoning." Since most human action is not motivated by deliberate, rational thought, the centrality of the noncognitive and affective should become more prominent in an adequate description of the inferential process in communication and the formation of social groups.

APPENDICES

APPENDIX A

METAPHOR TEST QUESTIONS (NORBURY 2005)

Example of item and foil choices. The correct answer is underlined.

The heating had been left on overnight and the room was very warm.

(a) synonym: *It was*:   **hot**   a blanket   a grill   spicy

(b) simile: *It was like*:   **an** oven   a blanket   a grill   a spice

(c) metaphor: *It was*:   **an oven**   a blanket   a grill   a spice

Note: In the simile condition, the carrier phrase ended with the word 'like'

Sentence Stimuli	Synonym	Metaphor	Foil 1	Foil 2	Foil 3
Simon had been walking in the snow for hours. His feet were	freezing	ice	shoes	sweaty	snowflakes
The tree in my garden has grown a lot this year. It is	tall	a tower	A leaf	long	A castle
Mum left the bread out overnight. This morning it was	hard	a brick	milk	A pebble	hot
My school friend always protects me from bullies. He is	brave	a soldier	A bully	smart	broad
Laura talks so softly you can barely hear her. She is	quiet	a mouse	quick	A cat	A phone
Jen always gets good marks on her exams. She is	clever	a professor	A hand	A coach	A pen
Father was very cross when I got home late. He was	angry	a volcano	A mountain	A board	A clock
Peter can lift very heavy weights with no problem. He is	strong	an ox	A goat	healthy	A barbell
Our new school is very big and I always get lost. It is	confusing	a maze	A map	A string	A web
Julie's long fingernails were painted red and gold. They were	colourful	jewels	toes	drawings	rings
Lou was always happy and made everyone feel good. He was	cheerful	the sun	A doctor	grass	clear
Pat has very long and smooth hair. It is	straight	spaghetti	fuzzy	A brush	macaroni
Joe spent too long in the swimming pool. He was	wrinkled	a prune	A ruby	A plum	A float
Sam's new pet dog is very big. It is	huge	an elephant	round	A house	A turtle
Louise had been shouting and crying for hours. She was	upset	a storm	A rainbow	shocked	A fire
The heating was on for hours and the room was warm. It was	hot	an oven	A blanket	A spice	A grill
Kate had a lovely face and pretty eyes. She was	beautiful	a painting	A mirror	A statue	nosy
Julian was hiding behind the tree and not moving. He was	still	a statue	calm	A painting	A plant

APPENDIX B

STORY TEST EXAMPLES (KALAND 2002)

I used four stories from Kaland (2002). I modified the vocabulary slightly to fit my audience or American participants. There were many comprehension questions that accompanied each story, but I have only included the questions that were most pertinent to assessment of physical and mental inferences.

5a) The robbery (tests comprehension of double bluff)

One late, dark autumn evening the 14-year-old Paul is going along some scary town streets with his mother. They are both a little afraid, because they have heard and read of people who have been robbed of their money in this area.

Earlier that day Paul's mother has been to the bank and made a withdrawal of $1400. She has placed the money in an inside coat pocket instead of in her handbag. Her old washing machine broke down for good a couple of days ago, and she has to buy a new one in one of the coming days. Paul doesn't know that his mother has earlier been to the bank and made a withdrawal.

Suddenly, two masked men, each with their own firearm, emerged from a dark side street and shouted: "Hands up, this is a robbery! Where is the money, old lady?" Paul's mother takes a real chance and says that she has hidden the money in an inside pocket. The robbers snatch her handbag and disappear into the darkness.

Questions

4. Why has she been to the bank and made a withdrawal? (PI)
5. Why does she place the money she has taken out in an inside pocket?
8. Why does Paul's mother say that she has hidden the money?
9. Is what Paul's mother says true? YES/NO/DON'T KNOW
10. Why do the robbers take her handbag and not her hat?
11. Why does Paul's mother say that the money is in an inside pocket, where she has really hidden it, and not in her handbag? (MI)

6 a) Tidying the room (tests comprehension of irony)

Tom and Adrian are brothers. Tom is 8 years old and Adrian is 14. Their mother is very strict and always makes sure that their rooms are tidy. One day she says that they must both tidy up their rooms. Tom, the youngest of the brothers, is always making a mess, and his room is usually very untidy. His mother often complains about the mess. Adrian seldom has to hear

such remarks, but his mother says that he should occasionally help his father tidying their villa garden.

Both Tom and Adrian go to their rooms to begin tidying. After a while their mother shouts and asks if they will soon be finished. Adrian replies that he is finished.

But, eight-year-old Tom hasn't began to tidy up at all! Adrian's mother asks if he can look in Tom's room to check if he has tidied up. Adrian opens the door to Tom's room, peers in and sees that the room appears as it normally does. He shouts to his mother: "Mother, Tom has as usual done a splendid job tidying up!"

Questions:

5. How does Tom's room look?
6. How does Adrian's room look? (PI)
10. Do you think Tom has tidied up his room? YES/NO/DON´T KNOW
11. Adrian says to his mother that Tom has as usual done a splendid job tidying up. Is what he says true? YES/NO/DON´T KNOW
12. Why does Adrian say this? (MI)

11 b) The wrong orange juice (test comprehension of lack of consideration for other people's feelings)

On the way home from work one Friday afternoon in the middle of rush hour Kent's mother experiences problems with her car. It breaks down and she has to be towed home. As usual on Fridays after work she has been to Wal-Mart to buy her groceries for the weekend. Unfortunately, Kent's favorite orange juice is sold out on this particular Friday. Instead Kent's mother buys normal orange juice with real fruit bits.

Kent's mother says that she is very tired in the body and has shoulder pains. The last few weeks she has had to work over-time, and arrives home from work late in the evening. Because of the pain she hasn't slept very well at night. Kent listens to what his mother says, but is unhappy that dinner, which he is usually served at 5 p.m., is delayed by several hours.

Kent helps his mother as usual in unpacking the groceries and putting them in the fridge. While he is doing this he discovers that his mother hasn't bought his favorite juice, but another brand of orange juice instead. He therefore fetches his mother's jacket and says: "If you hurry, you will make it to Gerbe's before it closes in half an hour. I know that they have Mills Orange Juice".

Kent's mother becomes extremely angry when she hears this and shouts in desperation: "You think only of yourself Kent!" Kent, who only wanted his favorite juice, is quite surprised that his mother becomes so angry because of this.

Questions

1. What happens to Kent's mother on the way home from work on Friday afternoon?
2. Where has Kent's mother bought her groceries for the weekend?
3. Why can't she buy Kent's favorite juice?
4. Why on this particular Friday evening is Kent's mother tired with shoulder pains? (PI)
5. What does Kent think about his dinner not being served at the usual time?
6. With what does Kent help his mother?
7. What does he discover as he puts the groceries into the fridge?
8. Why does Kent go and fetch his mother's coat?
9. Is Kent's mother angry on hearing his suggestion that she should go to Gerbe's to buy his favorite juice?

YES/NO/DON´T KNOW
10. Why is Kent so surprised that his mother becomes angry just because he would like to have his favorite juice? (MI)

12 b) The heavy bag (test comprehension of mistaken intentions)

Tina and Charlotte are in the 2nd grade at school; they are friends and often go to school together. Tina has been to the library and borrowed many books, so her school bag is very heavy. Her arm becomes very tired with the weight. Charlotte on the other hand, has not been to the library today. In her backpack she has only her pencil case and two notebooks.

 Charlotte is a kind and helpful friend, especially when she understands that somebody needs her help. But, she doesn't say so much.

 Just before they are to begin going home Tina says: "Can you wait a moment for me by this flag pole, while I go to the bathroom?" "Yes", says Charlotte, "I can". But, Charlotte doesn't wait for Tina, and when Tina comes out from the bathroom, Charlotte has already begun going home. Tina runs after her as fast as she can, while carrying the heavy bag in her right hand. After a while when she catches up with Charlotte she says: "You promised to wait for me, why did you just go?", asks Tina. But, Charlotte just looks in a questioning manner.

 Tina is now very tired in her arm and says to Charlotte: "Can you carry my bag?" "Yes, I can", replies Charlotte. Tina stops and waits for Charlotte to take her bag, but Charlotte just keeps on going.

Questions

2. Why is Tina's school bag heavy today?
3. Why is Charlotte's rucksack light to carry? (PI)
9. Why does Tina want Charlotte to carry the heavy school bag?
10. Why doesn't Charlotte stop to take Tina's bag when Tina's arm is so tired? (MI)

REFERENCES

Amaral, David. 2014. "Neuroimaging the Full Spectrum of Autism" October 17,

Monsanto Auditorium. Bond Life Sciences Building. University of Missouri.

American Psychiatric Association. 2000. *Diagnostic and Statistical Manual of Mental*

Disorders. 4th edition (text revision). Washington, DC: American Psychiatric

Association.

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental*

Disorders. 5th ed. Washington, DC: American Psychiatric Association.

Asperger, Hans. 1944. "Die „Autistischen Psychopathen'' Im Kindesalter." *European*

Archives of Psychiatry and Clinical Neuroscience 117 (1): 76–136.

Baltaxe, Christiane A. M. 1977. "Pragmatic Deficits in the Language of Autistic

Adolescents." *Journal of Pediatric Psychology* 2 (4): 176–180.

doi:10.1093/jpepsy/2.4.176.

Baron-Cohen, S, A M Leslie, and U Frith. 1985. "Does the Autistic Child Have a 'Theory

of Mind'?" *Cognition* 21 (1) (October): 37–46.

Bartlett, Sarah C, Elizabeth Armstrong, and Jacqueline Roberts. 2005. "Linguistic

Resources of Individuals with Asperger Syndrome." *Clinical Linguistics &*

Phonetics 19 (3): 203–213.

Bianchi, Claudia. 2014. "Slurs and Appropriation: An Echoic Account." *Journal of*

Pragmatics 66: 35–44.

Bishop, D. V., and G Baird. 2001. "Parent and Teacher Report of Pragmatic Aspects of
    Communication: Use of the Children's Communication Checklist in a Clinical
    Setting." *Developmental Medicine and Child Neurology* 43: 809–818.

Bourdieu, Pierre. 1991. *Language and Symbolic Power*. edited by J. Thompson and
    translated by G. Raymond and M. Adamson. Cambridge: Polity Press.

Chevallier, Coralie, Deirdre Wilson, Francesca Happé, and Ira Noveck. 2010. "Scalar
    Inferences in Autism Spectrum Disorders." *Journal of Autism and Developmental
    Disorders* 40: 1104–1117.

Clark, Herbert, and Richard Gerrig. 1984. "On the Pretense Theory of Irony." *Journal of
    Experimental Psychology: General* 113 (1): 121–126.

Cummings, Louise. 2014. *Pragmatic Disorders*. Perspectives in Pragmatics 177
    Philosophy & Psychology 3. Dordrecht: Springer Science+Business Media.

Grice, H.P. 1957. "Meaning." *Philosophical Review* 66: 377–88.

Halliday, M. A. K. 1994. *An Introduction to Functional Grammar*. London: Arnold.

Happé, Francesca. 1993. "Communicative Competence and Theory of Mind in Autism: a
    Test for Relevance Theory." *Cognition* 48: 101–19.

Happé, Francesca. 1999. "Autism: Cognitive Deficit or Cognitive Style?" *Trends in
    Cognitive Sciences* 3: 216–222.

Happé, Francesca, Angelica Ronald, and Robert Plomin. 2006. "Time to Give up on a
    Single Explanation for Autism." *Nature Neuroscience* 9 (10): 1218–1220.
    doi:10.1038/nn1770.

Holmes, Janet. 2013. *An Introduction to Sociolinguistics*. 4th ed. Harlow: Routledge.

Kahneman, Daniel. 2011. *Thinking, Fast and Slow*. New York: Farrar, Straus & Giroux.

Kaland, Nils, Kirsten Callesen, Annette Møller-Nielsen, Erik Lykke Mortensen, and Lars

    Smith. 2008. "Performance of Children and Adolescents with Asperger Syndrome

    or High-functioning Autism on Advanced Theory of Mind Tasks." *Journal of*

    Autism and Developmental Disorders 38 (6) (July 1): 1112–1123.

    doi:10.1007/s10803-007-0496-8.

Kaland, Nils, Annette Moller-Nielsen, Kirsten Callesen, Erik Lykke Mortensen, Dorte

    Gottlieb, and Lars Smith. 2002. "A New 'Advanced' Test of Theory of Mind:

    Evidence for Children and Adolescents with Asperger Syndrome." *Journal of*

    Child Psychology & Psychiatry & Allied Disciplines 43 (4) (May): 517.

Kaland, Nils, Annette Moller-Nielsen, Lars Smith, Erik Lykke Mortensen, Kirsten

    Callesen, and Dorte Gottlieb. 2005. "The Strange Stories Test. A Replication

    Study of Children and Adolescents with Asperger Syndrome." *European Child*

    and Adolescent Psychiatry 2: 73–82.

Klin, A, R Schultz, and D Cohen. 2000. "Theory of Mind in Action: Developmental

    Perspectives on Social Neuroscience." In *Understanding Other Minds:*

    Perspectives from Developmental Neuroscience, 357–388. Second. Oxford:

    Oxford University Press.

Labov, William. 1972. "The Social Stratification of (r) in New York City Department

    Stores." In *Sociolinguistic Patterns*, 43–54. Philadelphia, PA: University of

    Pennsylvania Press.

Loukusa, Soile, and Irma Moilanen. 2009. "Pragmatic Inference Abilities in Individuals

    with Asperger Syndrome or High-functioning Autism: A Review." *Research in*

    Autism Spectrum Disorders 3: 890–904. doi:10.1016/j.rasd.2009.05.002.

MacKay, Gilbert, and Adrienne Shaw. 2004. "A Comparative Study of Figurative

Language in Children with Autistic Spectrum Disorders." *Child Language

Teaching and Therapy* 20 (1) (February 1): 13–32.

doi:10.1191/0265659004ct261oa.

Martin, Ingerith, and Skye McDonald. 2003. "Weak Coherence, No Theory of Mind, or

Executive Dysfunction? Solving the Puzzle of Pragmatic Language Disorders."

Brain and Language 85 (3): 451–466. doi:10.1016/S0093-934X(03)00070-1.

Muszynska, Anna. 2012. "Non-Echoic Sarcasm: A Distinction from Irony Within

Relevance Theory." In *Relevance Theory: More Than Understanding*, 225–244.

Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Norbury, Courtenay Frazier. 2005. "The Relationship Between Theory of Mind and

Metaphor: Evidence from Children with Language Impairment and Autistic

Spectrum Disorder." *British Journal of Developmental Psychology* 23 (3): 383–

399. doi:10.1348/026151005X26732.

Nowik-Dziewicka, Ewa. 2012. "Banter and the Echo/Pretence Distinction." In *Relevance

Theory: More Than Understanding*, 245–257. Newcastle upon Tyne, UK:

Cambridge Scholars Publishing.

Ochs, Elinor, Tamar Kremer-Sadlik, Karen Gainer Sirota, and Olga Solomon. 2004.

"Autism and the Social World: An Anthropological Perspective." *Discourse

Studies* 6 (2): 147–183.

Pilkington, Dr Adrian. 2000. *Poetic Effects: A relevance theory perspective*. Amsterdam ;

Philadelphia: John Benjamins Publishing Company.

Sparks, Kevin. 2012. "Persuasion and Manipulation: Relevance Across Multiple

    Audiences". M.A., Grand Forks: University of North Dakota.

Sperber, Dan. 1984. "Verbal Irony: Pretense or Echoic Mention?" *Journal of*

    Experimental Psychology: General 113 (1): 130–136.

Sperber, Dan, and Deirdre Wilson. 1995. *Relevance: Communication and Cognition*.

    Second. Oxford ; Cambridge, MA: Blackwell Publishers.

Sperber, Dan, and Deirdre Wilson. 1997. "Remarks on Relevance Theory and the Social

    Sciences." *Multilingua* 16: 145–151.

Vega Moreno, Rosa E. 2007. *Creativity and Convention: The pragmatics of everyday*

    figurative speech. 156th ed. Amsterdam ; Philadelphia: John Benjamins

    Publishing Company.

de Villiers, Jessica, Jonathan Fine, Gary Ginsberg, Liezanne Vaccarella, and Peter

    Szatmari. 2007. "Brief Report: A Scale for Rating Conversational Impairment in

    Autism Spectrum Disorder." *Journal of Autism and Developmental Disorders* 37

    (7) (August 1): 1375–1380. doi:10.1007/s10803-006-0264-1.

de Villiers, Jessica, Brooke Myers, and Robert J. Stainton. 2010. "Differential Pragmatic

    Abilities and Autism Spectrum Disorders: The Case of Pragmatic Determinants of

    Literal Content." http://works.bepress.com/robertstainton/104.

de Villiers, Jessica, Robert J. Stainton, and Peter Szatmari. 2007. "Pragmatic Abilities in

    Autism Spectrum Disorder: a Case Study in Philosophy and the Empirical."

    Midwest Studies in Philosophy 31: 292–317.

Walaszewska, Ewa, and Agnieszka Piskorska, eds. 2012. *Relevance Theory: More Than*

    Understanding. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Watts, Richard J. 2003. *Politeness*. Cambridge, UK; New York: Cambridge University Press.

Wearing, Catherine. 2010. "Autism, Metaphor and Relevance Theory." *Mind & Language* 25 (2) (April 2): 196–216.

Wharton, Tim. 2009. *Pragmatics and Non-Verbal Communication*. Cambridge: Cambridge University Press.

Wharton, Tim. 2013. "Linguistic Action Theories of Communication." In *Theories and Models of Communication*, 1:241–256. Handbooks of Communication Science. Amsterdam: De Gruyter Mouton.

Wilson, Deirdre. 2013. "Irony Comprehension: A Developmental Perspective." *Journal of Pragmatics* 59 (0): 40–56. doi:10.1016/j.pragma.2012.09.016.

Wilson, Deirdre, and Robyn Carston. 2006. "Metaphor, Relevance and the 'Emergent Property' Issue." *Mind & Language* 21 (3): 404–433. doi:10.1111/j.1468-0017.2006.00284.x.

Wilson, Deirdre, and Dan Sperber. 2012. *Meaning and Relevance*. Cambridge University Press.

Wing, L. 1981. "Asperger's Syndrome: A Clinical Account." *Psychological Medicine* 11: 115–129.

Yus, Francisco. 2000. "On Reaching the Intended Ironic Interpretation." *International Journal of Communication* 10 (1-2): 27–78.