

ISSN 2372-6350

PENNSYLVANIA COMMUNICATION ANNUAL

**Journal of the
Pennsylvania Communication Association**

Special Online Issue on Student Research

Letter from the Editor

Cem Zeytinoglu.....8

Featured Graduate Paper

**Parents' Role as Information Provider in Child Autism
Diagnoses: Disclosure as a Predictor of Communal Coping,
Positive Affect, and Adaptation in Families**

Alexie H. Hays.....11

2015 PCA Graduate Writing Competition Winner

Cybersecurity Otherwise: Seeking Communicative Insights

Matthew P. Mancino34

2015 PCA Undergraduate Writing Competition Winner

**Moving from Nel Noddings' Ethic of Care to a Balanced
Ethic of Care**

Bayley Paharik.....59



Volume 72.2

December 2016

Editor

Cem Zeytinoglu, Ph.D.
East Stroudsburg University of Pennsylvania

The Pennsylvania Communication Annual as published is the property of the Pennsylvania Communication Association. The right of reproduction of its contents is expressly reserved by the association. The association waives the requirement of permission in the case of fair use of brief quotations for scholarly purposes and criticism, requesting only that appropriate credit be given for each quotation. Persons and publishers wishing to reproduce articles should contact the editor for specific permission.

Please follow the journal archive at Pennsylvania Communication Association website @ <http://pcasite.org/pca-journals/annual-archive/>

The Pennsylvania Communication Annual is now also indexed by the EBSCO Host.

The price per copy for non-members is \$20.00. All business correspondence regarding membership, payment of fees, and matters pertaining to the Communication Annual other than submission of manuscripts should be addressed to the Executive Director:

Ronald C. Arnett, Ph.D.,
Executive Director
Duquesne University,
600 Forbes Avenue,
340 College Hall,
Pittsburgh, PA 15282,
Phone: 412-396-6446,
Fax: 412-396-4792,
arnett@duq.edu

Associate Editors

Amanda McKendree, *University of Notre Dame*
Andrea McClanahan, *East Stroudsburg University of PA*
Ann Debra Jabro, *Robert Morris University*
Annette M. Holba, *Plymouth State University*
Beth Rajan Sockman, *East Stroudsburg University of PA*
Brian Gilchrist, *Mount St. Mary's University*
Charles R. Warner, *East Stroudsburg University of PA*
Colleen M. Merrick, *Westminster College*
Donna Weimer, *Juniata College*
Eric Grabowsky, *Dickinson State University*
Hans Schmidt, *Penn State University, Brandywine*
Hong Wang, *Shippensburg University of PA*
Janie Marie Harden Fritz, *Duquesne University*
Jeanne Pursuit, *University of North Carolina, Wilmington*
Jennifer Snyder-Duch, *Carlow University*
Joel Ward, *Geneva College*
John DuVal Lawson, *Robert Morris University*
John Prellwitz, *University of Pittsburgh at Greensburg*
Kelley Crowley, *Shenandoah University*
Melissa Cook, *Washington & Jefferson College*
Nichola Gutgold, *Penn State University, University Park*
Pat Arneson, *Duquesne University*
Patricia Kennedy, *East Stroudsburg University of PA*
Paul Andrew Lucas, *University of Pittsburgh at Johnstown*
Paul Lippert, *East Stroudsburg University of PA*
Sheryl Goodman, *Ursinus College*
Tatyana Dumova, *Point Park University*
Tim Connolly, *East Stroudsburg University of PA*
Wenjie Yan, *East Stroudsburg University of PA*

The Pennsylvania Communication Annual, 72.2, 2016

**Pennsylvania Communication Annual
Submission Guidelines**

The Pennsylvania Communication Annual is dedicated to advancing our undertaking of human communication. Manuscripts should be original and should discuss instructional, theoretical, philosophical, and/or practical aspects of any area of communication. Reviews of recent books and/or videotapes in any area of communication are also considered at the editor's discretion. While articles authored by Pennsylvanians and articles covering Pennsylvania topics are especially welcome, manuscripts on all topics and from all regions, including international submissions, are invited and will receive full consideration for publication.

The Pennsylvania Communication Annual is a refereed journal of the **Pennsylvania Communication Association**. Manuscripts for the 2017 issue (v.73) are now being received. The acceptance rates for 2015 and 2016 journals were respectively fewer than 25 and 34 percent. Submission should follow the latest APA style sheet. Please format your papers for blind review and remove anything that may give away your identity. *Manuscripts should not exceed 8000 words including references, notes, tables and other citations. Also book reviews should not exceed 2000 words.* Please submit your articles to *The Pennsylvania Communication Annual* at my.ejmanager.com/pca website. The submission deadline is April 5, 2017. PCA Annual is indexed by the EBSCO Host's *Communication Source* database. Please visit www.pcasite.org for more information.

Some important details to follow when submitting your manuscripts, if you use footnotes or endnotes: Endnotes only and without formatting, no footnotes.; no superscript font to indicate an endnote, just regular numbers and we will superscript upon editing; insert tables and illustrations as images only or send separate PDF files of these portions of the documents; formatted hanging indents only on references or no formatting at all; no "return" and "tab" to create the look of a hanging indent.

Editor: Cem Zeytinoglu, Ph.D., Associate Professor of Communication Studies, Monroe Hall 320, East Stroudsburg University of Pennsylvania, East Stroudsburg, PA, 18301-2999. Phone: 570-422-3911. Fax: 570-422-3402. Email: czeytinoglu@esu.edu

The Pennsylvania Communication Association (PCA) promotes teaching, scholarship, service, and an ongoing commitment to the discipline of human communication.

The Association believes in:

Teaching

- Advancing and developing communication curricula
- Responding to student and societal needs
- Attending to and caring for the student inside and outside of the communication classroom

Scholarship

- Promoting communication scholarship within the Keystone State
- Providing a disciplinary commitment to Pennsylvania scholars, reaching out to the larger discipline
- Being a dwelling place of Pennsylvania communication scholarship history

Service

- Connecting the larger community to the communication discipline
- Supporting efforts to professionalize students in communication fields
- Serving our students inside and outside of formal institutional structures

Commitment to the Discipline

- Nurturing the grassroots application of communication in the wider community
- Caring for the discipline on the local academic campus
- Supporting the larger discipline at the regional, national, and international levels

The Organization

The Pennsylvania Communication Association was originally founded as the Speech Communication Association of Pennsylvania (SCAP) in 1939. Its current title, the Pennsylvania Communication Association (PCA), commenced in 2003.

Pennsylvania Communication Association
2016-2017 Executive Committee

President

Joe Downing
Penn State-York
jrd24@psu.edu

Immediate Past President

Pat Arneson
Duquesne University
arneson@duq.edu

Vice President

Kristen Lynn Majocha
*University of Pittsburgh
at Johnstown*
klynn@pitt.edu

Vice President-Elect

Amanda McKendree
University of Notre Dame
amanda.mckendree@nd.edu

Publicity Officer

Paul Andrew Lucas
*University of Pittsburgh
at Johnstown*
pal59@pitt.edu

Executive Director

Ronald C. Arnett
Duquesne University
arnett@duq.edu

PA Scholar Series

Editor Ronald C. Arnett
Duquesne University
arnett@duq.edu

PA Communication Annual

Editor Cem Zeytinoglu
East Stroudsburg University
czeytinoglu@po-box.esu.edu

Member at Large

Ferris Crane
Robert Morris University
crane@rmu.edu

Member at Large

Jen Jones
Seton Hill University
jjones@setonhill.edu

For more information about the Pennsylvania Communication Association visit the website at <http://www.pcasite.org>.

From the Editor

Cem Zeytinoglu
East Stroudsburg University of Pennsylvania

This has been another exiting year for the *Pennsylvania Communication Annual*. Following two years of having multiple issues, this year we also decided to include a *Special Online Issue on Student Research (72.2)*. We hope to continue this tradition, hopefully, in future issues as well.

There are three different plans for special online issues for the next year. The first one is to have another *Philosophy of Communication* issue from the pre-conference presentations. The second plan is to invite significant papers from the ECA and NCA conventions to have a special issues on *Communication Ethics*. Lastly, as my personal wish, to have a special issue on Kenneth Burke... I will serve as the conference planner for the *Kenneth Burke Society's 2017 Triennial Conference* at East Stroudsburg University next June. I plan to collaborate with the *KBS Executive Council* to encourage presenters to submit for this special issue for 2017. I will hopefully keep the membership updated about these exciting opportunities.

We continue to work with *EBSCOHost Communication Sources* database which makes the *Annual* available digitally almost everywhere nationally and at many institutions globally. As I mentioned in the earlier issue, the *Scholar Series* is also available on the same database. We will continue to work on making our past issues available on this database as well.

This issue contains articles from two graduate students and one undergraduate student. The first graduate paper is by Alexie H. Hays, on family and health communication. She specifically is interested in parents' role in terms of communicating significant information towards their child's diagnosis of autism. Here paper was submitted to the regular issue and was highly commended and recommend to be featured as an exemplary doctoral level graduate scholarship.

The second graduate paper and the undergraduate paper come from the winners of the PCA's writing competition aims to en-

The Pennsylvania Communication Annual, 72.2, 2016

courage and give recognition to undergraduate and graduate level scholarship in communication and to offer undergraduate and graduate students the opportunity to present their work at every PCA Convention. This issue features the winners of the 2015 PCA writing competition. The winner of the graduate student writing completion in 2015 was Matthew P. Mancino, a doctoral student at Duquesne University. His essay almost nearly anticipates the cyber security question that have become a commonplace in the 2016 presidential election campaigns. The essay calls for a communicative re-consideration of cyber attacks and cyber warfare. Working from a communicative understanding of both cyberspace and cyber attacks he explores the broadened conceptions of cyberspace, the nature of cyber attacks, and suggest ways to begin thinking about appropriate responses to cyber attacks.

The undergraduate student paper winner for the 2015 PCA student writing completion was Bayley Paharik. Her paper was elected by the PCA members as the best undergraduate research paper among many others. Her essay is an interpretative and rhetorical exploration of Nel Noddings' concept of Ethic of Care. Bayley Paharik makes a case for moving beyond this concept and embracing a "balanced" Ethic of Care. She argues that, by caring for others, we care for ourselves, but care does not exist simply as a way to better oneself; it simply is an struggle for the common good. Thus the idea of morality lies on locating morality in this ethics for common good.

I expect that you will find this volume of the special issue of the *Annual* as thought provoking and intellectually engaging. As always my job was made much easier with the assistance, guidance and help by marvelous individuals who served as the reviewers and associate editors of the *Annual*. I thank and commend the authors in this issue. It is both an awarding and proud experience to see and appreciate the works of graduate and undergraduate students. It is PCA's commitment to support the student scholarship, and emphasize its significance and importance for the health and advancement of the communication discipline.

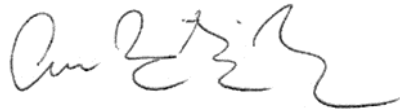
I also would like to recognizes all my students, who inspired and motivated me to be a better teacher in the past ten years by responding the call of scholarship and accompanying me in many regional and national conferences with their participation more

than a dozen times, where they presented many papers and posters with distinction.

I would like to officially thank everyone you contributed the realization of this issue. I am also grateful to my colleagues at the department of communication at East Stroudsburg University for their unwavering support. As always, I am thankful to all my mentors, friends, and peers for their encouragement and help.

Last, but not least, I would like to thank my own family, who every day, helps me to be a better spouse and parent, and without whom I simply could not have accomplished anything significant.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cem Zeytinoglu', with a stylized, flowing script.

Cem Zeytinoglu, PhD
Associate Professor of Communication

An Exploratory Look at Parents' Role as Information Provider in Child Autism Diagnoses: Advancing the Theory of Motivated Information Management

Alexie H. Hays
University of Missouri

Statistics on autism are rising, and with the diagnosis age as early as two years old, parents have the difficult task of disclosing diagnosis details to their child with autism. Based on the somewhat new Theory of Motivated Information Management (TMIM; Afifi & Weiner, 2004), the current investigation is interested in the criteria parent's consider(ed) predisclosure of the diagnosis to the child with autism, and how in turn disclosure impacts parental well-being. Through a survey taken by 66 parents of children on the autism spectrum, results revealed that parent's disclosed/plan to disclose accurate diagnosis details because they felt/feel that their child, with whom they feel relationally secure with, would benefit from knowing. This, in turn, helps the parents communally cope with their child and feel positive affect and perceived adaptation towards their child's diagnosis of autism. Findings from this study have implications for the role of parents as information providers.

Keywords: Disclosure, Autism, Families.

More people than ever before are being diagnosed with an autism spectrum disorder (ASD; Centers for Disease Control and Prevention [CDC], 2016a). In the United States, approximately 1 in 68 children are diagnosed with an ASD, with males (1 in 42) being diagnosed more frequently than females (1 in 189; CDC, 2016a). ASD includes a range of complex developmental disorders including autistic disorder, Aspergers syndrome, and pervasive developmental disorder—not otherwise specified (CDC, 2016b). The diagnosis is characterized by a variety of behaviors, including impaired communication, atypical or limited social functioning, and repetitive or self-stimulatory behaviors (Autism Speaks, 2016). Unique to this diagnosis is the severity and expression of these characteristics, which occur on a spectrum and manifest differently across individuals (Bluth, Roberson, Billen, & Sams, 2013). For example, a child with ASD may be highly

verbal (i.e., often considered high functioning), but may not socialize well with others and may be impaired in certain aspects of communication, play, and sensory processing (Ventola et al., 2007). Children with ASD, dependent on where they are on the spectrum, may also ask about their differences whether that be “Why can’t I ___?” or “What is wrong with me?” (Wheeler, 2003). Given that the diagnosis age of a child with an ASD is on average two to six years old (CDC, 2016a), it is up to parents to have an appropriate discussion with their child about the diagnosis when he/she is ready.

Communication scholars in the areas of family and health are uniquely positioned to study the ways in which prevalent disorders, like autism, intersect with communicative processes in families, including childhood diagnosis disclosure. Although the examination of parental experiences of the assessment and diagnosis process of their child’s ASD is extensive in autism research (Huws & Jones, 2008), a paucity of research in family communication exists examining what is, or is not, being said to a child diagnosed with autism and how that relates to parental well-being. Nondisclosure has been found to impact children with autism and cancer in negative ways, such that delaying diagnosis details evokes a range of negative emotions, including denial of the autism diagnosis (Huws & Jones, 2008) and distress for the child as cancer symptoms prevail (Claflin & Barbarin, 1991). Therefore, of concern is the possibility that this lack of dialogue may contribute further to the stressors associated with an autism diagnosis, both for the child and the parent. Based on the somewhat new Theory of Motivated Information Management (TMIM; Afifi & Weiner, 2004), the current investigation is interested in the criteria parent’s consider predisclosure of the diagnosis to the child with autism, and how in turn disclosure impacts parental well-being. This will shed valuable light on two of the three phases of the TMIM- the *evaluation* and *decision* phase- from the information providers (i.e., the parents) perspective. In addition, conducting an exploratory study that assesses what parents consider before disclosing the diagnosis to the child with autism (i.e., *evaluation* phase) and in turn, how that disclosure (i.e., *disclosure* phase) brings about communal coping (i.e., diagnosis is something we will face together), positive affect, and perceived adaptation to ASD could provide family communica-

Hays

tion researchers with vital information regarding this sensitive conversation in the context of autism.

Theory of Motivated Information Management

To better understand the decision-making process of the information provider, in this case the parent, the current exploratory study will be guided by TMIM. TMIM (Afifi & Weiner, 2004), often applies to information management in interpersonal relationships about important and challenging issues (Fowler & Afifi, 2011), such as the management of health-related information (Afifi, 2015). As noted by Afifi (2015), the theory has been almost exclusively applied to account for information-*seeking* behavior. These tests have successfully predicted information-seeking behaviors related to sexual health (Afifi & Weiner, 2006) and parental relationship quality (Afifi & Afifi, 2009), for example. Importantly, according to Afifi & Weiner (2004), the theory is unique in that it is the only interpersonal uncertainty framework to explicitly detail the assessments made by the *information provider* (IP) in the information exchange. However, this contribution is the least developed in both theoretical expositions and empirical tests (Afifi et al., 2006), and is, therefore, another exploratory contribution of the current investigation.

Information Provider (IP)

TMIM proposes a three-phase process of information management that is sequential in nature (Afifi et al., 2006). In the beginning, there is a gap between desired and actual uncertainty about an important issue (i.e., *interpretation* phase). That discrepancy, which leads to anxiety and a host of emotions (Afifi & Moorse, 2009), causes individuals to assess the likely outcome and success/effectiveness of providing the sought-after information (i.e., *evaluation* phase). Finally, based on physiological, cognitive limitations, social, and behavioral concerns, the most advantageous strategy is selected (i.e., *decision* phase) (Afifi et al., 2006). Afifi and Weiner (2004) note that the IP cycles through the *evaluation* and *decision* phases much like the information seeker (IS). Specifically, the IP will predict the “overall outcome of revealing the sought-after information, determine the importance of that outcome, and assess the probability that the information provided will yield the outcome they expect” (Afifi & Weiner, 2004, pg.

184). The current investigation is interested in exploring both the *evaluation* and *decision* phase in the context of autism from the IP's perspective. Firstly, by tapping into the criteria parents consider prior to disclosing the diagnosis to the child with autism, a better understanding of the *evaluation* stage can be attained.

Pre-Disclosure of an ASD Diagnosis- The *Evaluation* Phase

Currently, the TMIM argues that in the *evaluation* stage, IPs are thought to contemplate what the outcomes (3 outcome assessments) of providing the information will be, and how effective (3 efficacy assessments) they will be in providing sought-after information (for a more complete discussion see Afifi, 2015). Unfortunately, however, efficacy and outcome assessments have yet to be empirically tested from the IP's perspective, and Afifi & Weiner (2004) note that IPs engage in the *evaluation* process slightly differently at the specific content level. Therefore, the current exploratory investigation will utilize a preexisting set of criteria by Vangelisti, Caughlin, and Timmerman (2001) in order to explore whether parents consider certain criteria prior to disclosing the diagnosis to their child with autism. These criteria are easily translatable and may work well in an exploratory investigation of diagnosis disclosure in the autism context.

Criteria for revealing. Vangelisti et al., (2001) conducted a study and identified ten underlying criteria that characterized people's tendency to tell their family secrets to others. Essentially, these criteria are prerequisites people consider before they divulge information or secrets to others (Vangelisti et al., 2001). The current study adapted eight of these criteria to investigate why some parents decide to reveal information about the diagnosis to their child with autism. Such an application is tenable as the criteria Vangelisti et al. (2001) uncovered are standards people use to judge whether they should divulge previously unknown and potentially sensitive information. Given the unique communicative abilities of each child with ASD, some criteria may be more germane than others, thus only those applicable to the current context were used. Two criteria including *family membership* (i.e., if the person became intimately closer) and *permission* (i.e., must receive permission from receiver) may not be translatable to the current project due to the child's preexisting family connection and his/her mental and communicative ability. Table 1 below

Hays

details examples of how the eight criteria were adapted for use in the current investigation.

Keeping in mind each child with ASD and his/her unique diagno-

Table 1

Adaptation of (8) Criteria for Revealing a Family Secret (Vangelisti, Caughlin, & Timmerman, 2001) for Parents that Have and Have Not Disclosed the Diagnosis

Criteria	Explanation and Adaptation Examples For Both Groups
Exposure:	Revealing when confronted (e.g., "Mom why can't I do ___?") or when we want others to know and understand the secret. Ex: <i>I told/would tell my child because I knew/know he/she was/is likely to find out about his/her ASD.</i>
Urgency:	The secret (i.e., symptoms) may be becoming worse. Ex: <i>I revealed/would reveal my child's ASD to him/her because it became/could become a more critical concern.</i>
Important Reason:	Secret-holder (i.e., parent) realizes the importance of telling the secret for the other person's own good. Ex: <i>There/If there was a pressing need for my child to know about his/her ASD diagnosis so I told/I would tell him/her about his/her diagnosis.</i>
Never:	The secret will never be revealed. Ex: <i>I thought there was no chance/There is no chance I would ever reveal his/her ASD to my child but I did/and so I won't.</i>
Relational Security:	Secret holder (i.e., parent) feels there is intimacy and trust with the secret receiver. Ex: <i>I trust my child so I revealed/would reveal his/her ASD to him/her.</i>
Acceptance:	Disclosing because the recipient is able to accept the information. Ex: <i>I knew/If I knew my child wouldn't feel judged after hearing his/her diagnosis, so I told/I would tell him/her about his/her ASD.</i>
Intimate Exchange:	Disclosing because the secret holder believes knowing the secret will help the receiver by comforting them. Ex: <i>I revealed/would reveal my child's ASD diagnosis to him/her because/if I thought my child needed to know he/she wasn't alone.</i>
Conversation Appropriateness:	A similar topic is already being discussed. Ex: <i>We/If we were discussing a subject related to his/her ASD so I revealed/I would reveal my child's ASD to him/her.</i>

sis, the first aim of the current study is to understand whether such criteria outlined in Table 1 help explain how parents come to a decision to disclose the diagnosis to the child with autism (i.e., the *evaluation* phase). A better understanding of the pre-disclosure stage, from the parent's perspective, will provide deeper insight into the factors parents consider in determining when a child is ready for information about his or her diagnosis. This will build on autism work, which argues that a child's personality, abilities, and social awareness are all factors to consider in determining when a child is ready for information about his/her diagnosis (Wheeler, 2003). In addition, this will help provide

a much-needed preliminary look at the IP and their decisions in the *evaluation* phase, which will theoretically advance the TMIM. As such, research question one asks if eight of the ten criteria outlined by Vangelisti et al. (2001) help explain why parents decide to disclose the diagnosis to their child with autism:

RQ1: Was certain criteria (*exposure, urgency, conversational appropriateness, important reason, never, relational security, acceptance, and intimate exchange*) considered by parents prior to disclosing the child's ASD diagnosis to him/her?

Disclosure of ASD- The *Decision* Phase

In addition to understanding the criteria that have led some parents to disclose the diagnosis to their child with autism, this study also aims to understand what the parent has disclosed (i.e., the *decision* phase), and how in turn that affects parental well-being. Afifi and Weiner (2004) note that in the final *decision* phase outlined by TMIM, IPs make strategic decisions regarding what they will disclose. These strategic decisions, although currently untested by the TMIM, are thought to possibly involve the amount and level of honesty of the information IPs choose to provide, the directness with which the information is conveyed, the preferred channel (i.e., face-to-face), and the privacy of the setting, among other considerations (Afifi & Weiner, 2004). Similar criteria (e.g., amount shared) about what to disclose already exist in established seminal work on disclosure by Wheeless and Grotz's (1976), and therefore, will be utilized in this exploratory investigation to help explain the *decision* phase.

Wheeless and Grotz (1976) argue that the important variables to consider when studying self-disclosure in relationships include (a) *depth* or *intimacy*, (b) *honesty* or *accuracy*, (c) *amount that takes place*, (d) *valence* (negative or positive information revealed), and (e) *intentionality* (awareness of what is being revealed). Leung (2002) utilized these criteria to determine the connection between self-disclosure in online chat rooms, level of loneliness, and online usage. Specifically, Leung found that *accurate* self-disclosure online led to decreased loneliness. Further, in Huws and Jones (2008) study assessing young adults perception of their own diagnosis of autism, the authors found that the delay

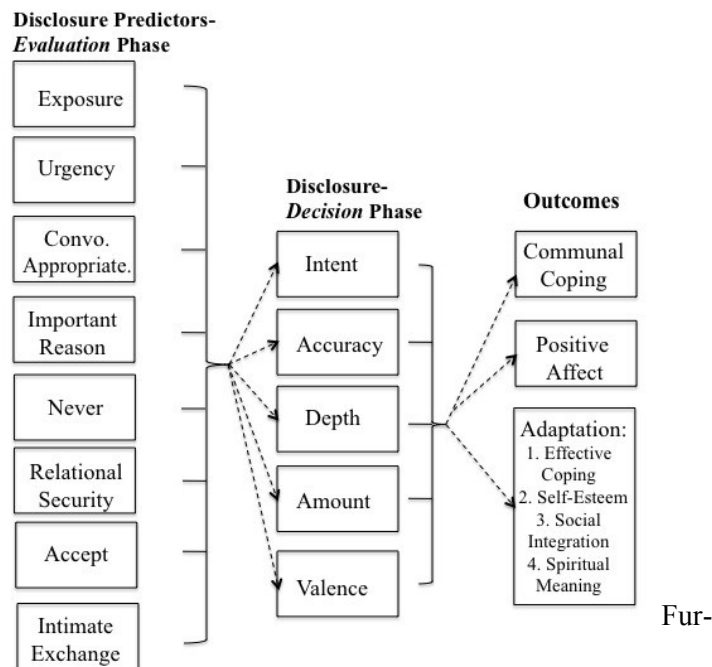
Hays

that had occurred between the time of the diagnosis and its subsequent disclosure to the young adults evoked a range of reactions and feelings implying that a lack of *honest* disclosure resulted in disappointment. Finally, Claflin and Barbarin's (1991) study revealed that nondisclosure of a the diagnosis to a child with cancer failed to mask the salient and distressing aspects of the illness (Claflin & Barbarin, 1991). In other words, the less that was told to the child about his/her diagnosis (i.e., *amount*), the more distressing it was as symptoms prevailed. Results from these studies reveal that *accurate* and *honest* conversations that are high in *amount* tend to lead to better outcomes for individuals. However, in the context of autism, such findings have yet to be empirically tested. Uncovering what parents disclose to the child with autism, and the outcomes associated with that disclosure, will provide useful knowledge about the *decision* phase of the TMIM and about the information management experience of parents who are responsible for disclosing health information to their child. As such, this study will explore whether positive outcomes, such as communal coping, affect, and adaptation, emerge as a result of parents' disclosure of the diagnosis to their child with autism based on Wheelless and Grotz (1976) disclosure variables.

Outcomes of disclosure. One positive outcome that can transpire in families who communicate about a stressor, like a child diagnosis of autism, is communal coping (Afifi, Hutchinson & Krouse, 2006). While communication scholars indicate that social support has been shown to help alleviate the stress that accompanies having a child with an ASD (Faw, 2014), social support assumes that the responsibility for managing a stressor rests primarily with the person who is stressed, or he/she perceives the stressor as his or her problem. On the other hand, communal coping allows individuals to co-manage the stressor(s) allowing individuals to work together to confront stressful circumstances (Afifi, Hutchinson, & Krouse, 2006). Here, individuals view the stressor as "our" problem and "our" responsibility (Lyons, Mickelson, Sullivan, & Coyne, 1988). In the context of autism, co-managing is likely present, as it is well documented that parents take on much of the stress associated with the diagnosis (McGrew & Keyes, 2014), although the parent is not the one diagnosed.

In addition to communal coping, researchers in psychology argue

that positive affect in the stress process has been underrepresented, even though it is often present during a family stressor (Folkman & Moskowitz, 2000). Positive affect reflects the extent to which a person feels active, alert, or enthusiastic, whereas negative affect reflects a dimension of distress and displeasure (Watson, Clark, & Tellegen, 1988). It is commonly acknowledged that negative affect relates to chronic stress, yet increasing empirical evidence shows that positive affect also occurs during chronic stress, often with unexpected frequency (Folkman & Moskowitz, 2000). In a longitudinal study of caregivers for individuals diagnosed with AIDS, Folkman (1997) found that with the exception of the time immediately surrounding their partner's death, participants reported experiencing positive affect in combination with negative affect. In addition, Ekas and Whitman (2010) found that positive affect does exist for mothers of children with autism during low-to-moderate stressful times. As such, parents of a child diagnosed with an ASD may be able to feel positive affect during honest and accurate discussions with their child regarding his/her diagnosis, even though the conversation may be somewhat stressful.



Hays

thermore, theoretical and empirical work in psychology indicates that positive affect can have significant adaptive functions under conditions of stress (Folkman & Moskowitz, 2000). Adaptation is the dynamic and multi-dimensional process of coming to terms with the implications of a health threat and the outcomes of that process (Biesecker, et al., 2013). Adaptation is multi-dimensional given that, with time, a health threat causes changes to an individual's *self-esteem* and *spiritual/existential well-being* and changes one's ability to *effectively cope* and *socially integrate* (Biesecker, et al., 2013). As Behr, Murphy, and Summers (1992) found, even with increased levels of stress, families with a child who has special needs can achieve positive adaptation within the family unit.

Based on the empirical findings noted above that parents take on and share much of the stress associated with their child's autism diagnosis, that positive affect can exist in some chronically stressful situations, and that despite such stressful situations individuals can adapt in a positive way, research questions two, three, and four are posed to see if such outcomes transpire following parents' disclosure of the diagnosis to their child with autism. In other words, the final three research questions aim to understand which elements of disclosure by Wheelless and Grotz's (1976) bring about communal coping (i.e., this diagnosis is something we will face together), positive affect about the diagnosis on the parent's part, and perceived adaptation to ASD. Together, these findings will provide an initial look at what transpires following discussions that explain the diagnosis to the child with autism:

RQ2: Which element(s) (*depth, accuracy, amount, valence, and intent*) of parents' disclosure of the diagnosis to the child with autism relates to *communal coping*?

RQ3: Which element(s) (*depth, accuracy, amount, valence, and intent*) of parents' disclosure of the diagnosis to the child with autism relates to *positive affect*?

RQ4: Which element(s) (*depth, accuracy, amount, valence, and intent*) of parents' disclosure of the diagnosis to the child with autism relates to *adaptation (effective coping, self-esteem, social integration, and spiritual/existential meaning)*?

Methods

Participants

The study consisted of 66 parents of a child on the autism spectrum. Parents in the current study ranged in age from 24 to 59 years old ($M = 40.27$, $SD = 8.082$) and were predominately female ($n = 59$, 89.4%) and white/Caucasian ($n = 60$, 90.9%). In addition, each parent reported on his/her annual income with the majority falling between \$20-50,000 ($n = 17$, 25.8%) and above \$80,000 ($n = 30$, 45.5%). Parents also reported demographics on their child who is on the spectrum. If he/she had multiple children diagnosed, he/she was directed to think about the child who was diagnosed first in order to capture their experience the first time they received a child autism diagnosis. Children were on average ten to eleven years old ($SD = 6.55$), predominately white/Caucasian ($n = 59$, 89.4%), and had an average score of 2.85 ($SD = .827$) in terms of severity (1 = “normal” functioning, 5 = severe) regarding their functioning (verbal, social, and non-verbal). The children were predominately male ($n = 55$, 83.3%), which is common in autism diagnoses (CDC, 2016a).

Procedure

Participants were recruited through online forums (e.g., Facebook and autism blogs), through local and statewide disability organizations and care centers, and through snowball sampling. Once consent was given, parents took an online survey where they were first asked if they had told their child about his/her diagnosis followed by a yes/no response. Overall, 40¹ (60.6%) parents noted that they had discussed the diagnosis with their child while 26 (39.4%) noted that had not. Dependant on the response, participants were then asked to either think about their disclosure experience (those that marked “yes”), or think about their intent to disclose (those that marked “no”) while they responded to survey items asking about their perceived disclosure or actual disclosure and how that leads/has lead to feelings of communal coping, positive affect, and perceived adaptation.

Hays

Measures

All measures were rated on a 5-point Likert-type scale (1= *strongly disagree* to 5= *strongly agree*). Reliability was measured with intraclass correlations for the 2-item scales and Cronbach's alpha for the 3 and higher item scales.

Decision to disclose/intent. A measure was adapted from Vangelisti et al.'s (2001) scale to assess whether certain criteria were considered by parents who have, or plan to, reveal the diagnosis of ASD to their child. Eight dimensions (34-items) were used to form disclosure: *Exposure* (8-items; $M = 3.39$, $SD = 1.14$, $\alpha = .90$), *urgency* (4 items; $M = 2.97$, $SD = 1.32$, $\alpha = .90$), *conversational appropriateness* (4 items; $M = 3.25$, $SD = 1.14$, $\alpha = .90$), *important reason* (4 items; $M = 3.51$, $SD = 1.12$, $\alpha = .83$), *never* (4 items; $M = 1.29$, $SD = .606$, $\alpha = .93$), *relational security* (3 items; $M = 3.38$, $SD = 1.12$, $\alpha = .88$), *acceptance* (3 items; $M = 3.61$, $SD = 1.34$, $\alpha = .93$) and *intimate exchange* (4 items; $M = 3.79$, $SD = 1.11$, $\alpha = .89$). Example items can be seen in Table 1 above.

Disclosure/perceived disclosure. A revised version of the Self-Disclosure Scale (Wheeless & Grotz, 1976) asked parents to assess 16 items on five dimensions about their disclosure/perceived disclosure of autism with their child. Those five dimensions include *depth* (7 items; $M = 2.78$, $SD = .797$, $\alpha = .78$), *accuracy* (2 items; $M = 3.09$, $SD = 1.05$, $\alpha = .70$), *amount* (2 items; $M = 3.01$, $SD = .879$, $\alpha = .67$), *valence* (3 items; $M = 4.17$, $SD = .825$, $\alpha = .91$), and *intent* (2 items; $M = 3.64$, $SD = 1.04$, $\alpha = .93$). Example items included: "Once I get started, my self-disclosures to my child about his/her ASD last a long time" (*depth*) and "I usually disclose negative things about my child's ASD to him/her" (*valence*/reverse coded).

Communal coping. Communal coping between the child who has ASD and the parent participant was assessed using two questions from Afifi, Hutchinson, and Krouse's (2006) theoretical model of communal coping. The first item: "I see my child's ASD as something that is 'our difficulty' that my child and I face together" ($M = 4.04$, $SD = 2.53$) and second item: "I have a real feeling that my child and I are going to work through this diagnosis together, whatever the outcome" ($M = 4.41$, $SD = 1.71$) to-

gether achieved reliability ($\alpha = .88$).

Affect. The revised Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) included ten items assessing parents' positive affect ($M = 3.18$, $SD = 1.02$, $\alpha = .87$) towards their child's ASD diagnosis. Example emotions assessed included "determined," "attentive," "strong," and "enthusiastic."

Adaptation. The revised Psychological Adaptation Scale (Biesecker, et al., 2013) was used to assess parent's adaptation to their child's ASD in four domains (20-items, 5 each) including *effective coping* ($M = 4.16$, $SD = .903$, $\alpha = .87$), *self-esteem* ($M = 3.95$, $SD = .982$, $\alpha = .90$), *social integration* ($M = 3.89$, $SD = .811$, $\alpha = .81$), and *spiritual/existential meaning* ($M = 3.39$, $SD = 1.02$, $\alpha = .77$). Example items include "Being a caregiver of a child with an ASD has... 'helped me to look at things in a more positive way' (*effective coping*) and 'helped me become a stronger person' (*self-esteem*).

Results

Both those that have disclosed and those that have not disclosed were combined to answer all four research questions in order to understand what led, or may lead, parents to disclose the ASD diagnosis to their child (R1), and how in turn that effects their perception of communally coping with their child (R2), their perceived positive affect towards the diagnosis (R3), and their perceived adaptation to ASD (R4). A small amount of missing data was imputed using an expectation-maximization (EM) algorithm in SPSS prior to running the regressions.

Decision to disclose/intent. In order to answer RQ1, five multiple linear regressions were run in which *exposure*, *urgency*, *conversational appropriateness*, *important reason*, *never*, *relational security*, *acceptance*, and *intimate exchange* were entered as independent variables, while *depth*, *accuracy*, *amount*, *valence*, and *intent* were dependent variables in separate regression models. Results revealed that *depth* [$F(8, 65) = 2.25$; $p < .05$, adjusted $R^2 = .133$] was significantly negatively predicted by *exposure* [$\beta = -.47$, $t(65) = -2.73$, $p < .01$]. Additionally, *accuracy* [$F(8, 65) = 5.71$; $p < .001$, adjusted $R^2 = .367$] was significantly negatively predicted by *exposure* [$\beta = -.45$, $t(65) = -3.11$, $p < .01$] and

Hays

important reason [$\beta = -.79, t(65) = -.794, p < .001$] and significantly positively predicted by *relational security* [$\beta = .26, t(65) = 2.33, p < .05$] and *intimate exchange* [$\beta = .81, t(65) = 4.41, p < .001$].

Together, these findings insinuate that parents are disclosing/perceive they will disclose accurately if they feel/felt relationally secure with the child and think it will help the child, but if parents believe the child will find out about the diagnosis with time or if a crisis arose revolving around ASD, the parents have not/will not disclose accurate and/or in depth details. Further results revealed that the overall model for *intent* was significant [$F(8, 65) = 2.61; p < .05$, adjusted $R^2 = .165$], although the criteria failed to significantly predict intent to disclose. Finally, *amount* [$F(8, 65) = .377; p = .93$] and *valence* [$F(8, 65) = .934; p = .50$] were not positively predicted by any of the criteria. See Figure 2 below for each significant path.

Disclosure/perceived disclosure and outcomes. The second part of the proposed model aimed to understand which elements (*depth, accuracy, amount, valence, and intent*) of parents' disclosure/perceived disclosure of the diagnosis to the child with autism relates to certain outcomes. H2 asked if disclosure/perceived disclosure (*depth, accuracy, amount, valence, and intent*) would relate to communal coping. Results from a linear regression revealed that *communal coping* [$F(5, 65) = 5.23; p < .001$, adjusted $R^2 = .245$] was positively predicted by *accuracy* [$\beta = .35, t(65) = 2.22, p < .05$] and negatively predicted by *amount* [$\beta = -.33, t(65) = -2.72, p < .01$], such that accurate conversations about the child's ASD diagnosis help the parent feel as though they are communally coping with their child, while abundant conversation about the diagnosis lessens perceived communal coping.

A linear regression was run for RQ3, which asked if disclosure/perceived disclosure (*depth, accuracy, amount, valence, and intent*) of a child's diagnosis would relate to *positive affect*. Results revealed that *positive affect* [$F(5, 65) = 7.31; p < .001$, adjusted $R^2 = .327$] was positively predicted by *accuracy* [$\beta = .42, t(65) = 2.76, p < .01$] and negatively predicted by *amount* [$\beta = -.44, t(65) = -3.54, p < .001$]. Similar to the findings for communal coping, accurate conversations help the parents feel positive affect to-

wards their child's ASD diagnosis, while abundant conversation hinders positive affect towards the diagnosis.

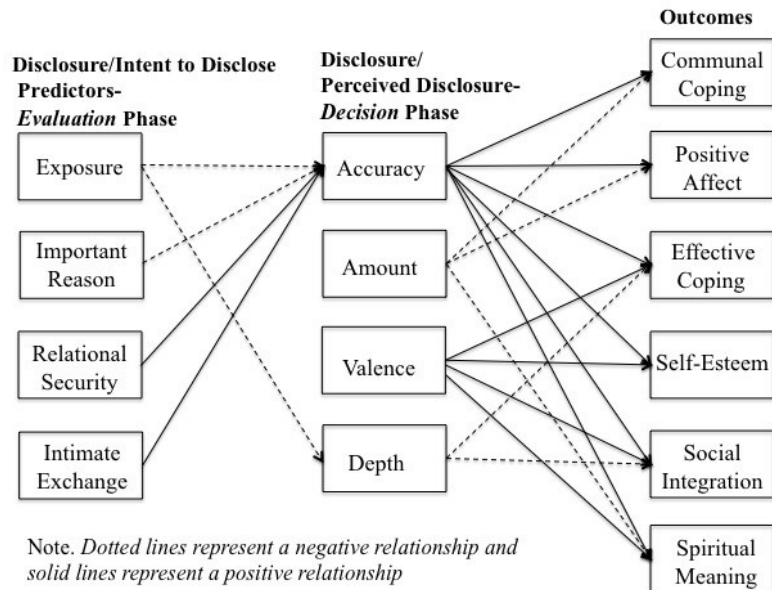
Finally, four separate linear regressions were run for RQ4 with *depth*, *accuracy*, *amount*, *valence*, and *intent* as the independent variables and *effective coping*, *self-esteem*, *social integration*, and *spiritual/existential meaning* served as the dependent variables representative of adaptation in the separate regressions. Results revealed that *effective coping* [$F(5, 65) = 2.93$; $p < .05$, adjusted $R^2 = .129$] was positively predicted by *accuracy* [$\beta = .50$, $t(65) = 2.94$, $p < .01$] and *valence* [$\beta = .25$, $t(65) = 2.01$, $p < .05$], and negatively predicted by *depth* [$\beta = -.49$, $t(65) = -2.59$, $p < .05$]. Similarly, *self-esteem* [$F(5, 65) = 9.12$; $p < .001$, adjusted $R^2 = .384$] was positively predicted by *accuracy* [$\beta = .69$, $t(65) = 4.80$, $p < .001$] and *valence* [$\beta = .32$, $t(65) = 2.99$, $p < .01$]. In addition, *social integration* [$F(5, 65) = 6.49$; $p < .001$, adjusted $R^2 = .297$] was positively predicted by *accuracy* [$\beta = .36$, $t(65) = 2.35$, $p < .05$] and *valence* [$\beta = .40$, $t(65) = 3.58$, $p < .001$], but was negatively predicted by *depth* [$\beta = -.38$, $t(65) = -2.24$, $p < .05$]. Finally, *spiritual/existential well-being* [$F(5, 65) = 10.71$; $p < .001$, adjusted $R^2 = .428$] was positively predicted by *accuracy* [$\beta = .65$, $t(65) = 4.68$, $p < .001$] and *valence* [$\beta = .36$, $t(65) = 3.52$, $p < .001$], but was negatively predicted by *amount* [$\beta = -.27$, $t(65) = -1.98$, $p < .05$]. These findings help explain that accurate and positive parent-child conversations about a child's diagnosis in this context helps the parents adapt in all areas of their life, while conversations that are too in depth or high in amount deter parents from either effectively coping, integrating, or spiritually adapting.

Discussion of Findings

The current investigation was exploratory in nature and aimed to understand parents' motivation for disclosing diagnosis details to their child with autism and how in turn that disclosure, or perceived disclosure, impacts parental well-being. Research in the area of autism has found that a child's personality, abilities, and social awareness are all factors to consider in determining when a child is ready for information about his/her diagnosis (Wheeler, 2003). This study contributes to this previous knowledge by showing that in families with a child with autism, parents consid-

Hays

er how secure their relationship is with their child and whether or not knowing the diagnosis will help the child, prior to disclosing. These findings have important implications beyond just the assessment of a child's ability to receive information, and further positions relational dynamics and the desire to do what is best for the child as important factors in deciding when a child is ready to hear about his/her diagnosis. Family and health communication scholars should continue to pursue this line of work, as findings from this study have implications for understanding the relational (non)disclosure considerations of parent's regarding stigmatized neurodevelopmental disorders and the outcomes that transpire, namely communal coping, affect, and adaptation, following these interpersonal discussions.



Practical Implications of In-Depth Disclosure

Findings revealed that accurate parent-child discussions that are positive in valence help the parents adapt to their child's diagnosis, while discussions that are too in depth or high in amount may not be good for the parents, in terms of adaptation. More specifically, disclosure/perceived disclosure of accurate and positive diagnosis details helps parents effectively cope, experience better self-esteem, socially integrate, and have a better understanding of

their spiritual/existential meaning in life, unlike in-depth conversations. In this specific context, parents seem to feel adverse effects when talking about their child's diagnosis in too much detail with their child. In addition, parents in this study indicated that they will not disclose diagnosis details in depth if the child is likely to find out about his/her diagnosis with time anyways. This lack of in-depth disclosure may be explained by parents' desire to shield their child from societal stigma surrounding disability, or from knowing too much about his/her diagnosis early on. These findings are in line with previous research that has found that parents of children with an intellectual disability often avoid discussions about disability as a way to protect their child from its perceived stigma (Todd & Shearn, 1997). Taken together, in-depth discussions appear to be something parents might be avoiding, and may want to consider continuing to avoid. More empirical research by family communication scholars related to (non) disclosure of stigmatized health or learning disorders (i.e., Dyslexia) could help parse out when in-depth discussions are necessary and helpful. Asking questions related to the language, depth, and framing of the diagnosis could offer both researchers and families useful knowledge about how to best undergo this sensitive conversation.

Communal Coping and Affect

Additional findings reveal that parents do feel as though they are communally coping with their child who has an ASD, and, as such, are facing the diagnosis together. This finding theoretically advances work on communal coping in the area of family communication by showing that individuals can, and do, feel as though they are coping with members who do not share their same mental capacity. Because the bulk of family communication scholarship tends to focus on communication of neurologically typical functioning individuals (Hays & Colaner, 2016), this finding has large implications for family researchers. Findings from this exploratory study should be replicated in additional family communication studies assessing intellectual disability diagnoses in order to accurately surmise that communal coping happens in neurotypical and nonneurotypical settings. This type of coping is key for minimizing the negative impact that uncertainty brings, while fostering a sense of resilience and security (Afifi, Felix, & Afifi, 2012), and therefore, should continue to be assessed as an

Hays

outcome variable.

Further, not only do parents in this study perceive that they are communally coping with their child, but also, parents appear to be experiencing positive affect as a result of disclosure to their child. More specifically, findings revealed that accurate disclosure of the diagnosis to the child with autism helps parents feel positive affect (i.e., strong, attentive, determined). Such findings speak to this family's ability to use their communication to help them traverse through difficult times together, and in a positive way, and, therefore, solidify communication researchers place in exploring information management experiences of families with a child with autism.

Advancement of the TMIM

The current study, although exploratory in nature, also furthers understanding of the TMIM. The TMIM has quickly emerged as a useful and powerful framework for scholars interested in studying individuals' health information management choices within interpersonal interactions (Afifi, 2015). While the theoretical structure has been deemed influential, the current exploratory investigation is uniquely atypical because it assesses the information management experience from the IP's perspective. Recently, Afifi (2015) asked, "What are the critical features that impact provider's decisions?" (p. 1762). In this study, parents act as the information providers and they appear to be considering their child's needs and their feelings of relational security with their child prior to disclosing the diagnosis to their child with autism. While this finding is not robust, it does offer an important glimpse into the *evaluation* stage from the IP's perspective. In particular, because parents are considering *relational* dynamics pre-disclosure, this study opens up immense opportunities for further exploration by family communication researchers. Communication researchers who plan to continue to use the TMIM and assess the *evaluation* and *decision* phase should consider other factors, such as how a lack of social support or stress level of a parent responsible for providing diagnosis details impacts the parent's level of accuracy, honesty, and amount of disclosure; these will be important future questions.

Within the *decision* phase, parents appear to lean towards disclo-

sure rather than not, as evidenced by the majority of parents (i.e., 60.6%) who noted that they had disclosed the diagnosis to their child with autism. This insinuates that parents disclose diagnosis details even though their child may not have the full mental capacity to understand. With this finding comes important follow-up questions such as, “Are there other instances in which mental capacity would prevent diagnosis disclosure?” Further, “What if the IP has a mental disability?” “How does that impact their disclosure?” These and similar questions should be answered by communication scholars who are uniquely positioned to study the ways in which prevalent disorders, like autism, intersect with communicative processes in families. Future researchers should extend upon and utilize the proposed theoretical model, as it may be translatable for other families where parents are responsible for the disclosure of medical information to their young children (e.g., ADHD/cancer/Marfan syndrome). In such instances, accurate conversations may ease the child’s discomfort and subsequently have positive effects on parents’ well-being.

Limitations

Given that the current investigation was comprised of middle-to-upper class parents with children who ranged from mild to moderate to severe on the autism spectrum, an accurate profile of today’s family living with a child with autism was captured. However, there are still innate limitations to this study. Given the small sample size and homogenous sample, researchers should work to enhance the variance and sample size. Because these families are inherently busy providing day-to-day care for their child with autism (Faw, 2014), coming up with unique ways to target and recruit these and other distinctive populations should be a goal of researchers who study unique populations. A larger sample size would have allowed the two groups of parents who have disclosed and those who have not to be broken up. This could have captured a more accurate profile that then could be built upon later by researchers focused on the disclosure/non-disclosure of health diagnoses to children.

This exploratory study only scratched the surface of the *evaluation* and *decision* phase of the TMIM. Much more work, particularly regarding the 3 outcome assessments and 3 efficacy assessments posed by Afifi & Weiner (2004), is needed to deem the

Hays

findings in this study valid and reliable. Researchers interested in the IPs perspective should test Afifi and Weiner's (2004) proposed outcome and efficacy assessments, while keeping in mind the relational dynamics of the IP and IS. Results from this study imply that relational dynamics may be an important consideration, among others, prior to disclosing diagnosis details to a child with autism.

Despite sample size limitations, the current investigation provided important exploratory work on the TMIM and the communication experience of parents who are responsible for providing details of a diagnosis to their child with an intellectual disability. Understanding the delicate balance and unique needs of every family who is responsible for revealing medical diagnoses to children is important future work for family and health communication scholars.

Endnotes

1. Because only slightly more than the majority of parents had disclosed the diagnosis to their child, the remainder of the document will refer to disclosure as “pre-disclosure/intent to disclose” or “disclosure/perceived disclosure” in order to accurately characterize the parents' experience.

References

- Afifi, W. A. (2015). *Theory of Motivated Information Management*. In C. R. Berger and M. Roloff (Eds.), *International Encyclopedia of Interpersonal Communication*. Wiley, Blackwell.
- Afifi, W. A., & Afifi, T. D. (2009). Avoidance among adolescents in conversations about their parents' relationship: Applying the Theory of Motivated Information Management. *Journal of Social and Personal Relationships*, *26*, 488–511. doi:10.1177/0265407509350869
- Afifi, W. A., Felix, E. D., & Afifi, T. D. (2012). The impact of uncertainty and communal coping on mental health following natural disasters. *Anxiety, Stress & Coping*, *25* (3), 329-347. <http://dx.doi.org/10.1080/10615806.2011.603048>

- Afifi, T. D., Hutchinson, S., & Krouse, S. (2006). Toward a theoretical model of communal coping in postdivorce families and other naturally occurring groups. *Communication Theory, 16*, 378-409. doi:10.1111/j.1468-2885.2006.00275.x
- Afifi, W. A., Morgan, S. E., Stephenson, M. T., Morse, C., Harrison, T., Reichert, T., & Long, S. D. (2006). Examining the decision to talk with family about organ donation: Applying the Theory of Motivated Information Management. *Communication Monographs, 73*, 188–215. <http://dx.doi.org/10.1080/03637750600690700>
- Afifi, W. A., & Morse, C. R. (2009). Expanding the role of emotion in the Theory of Motivated Information Management. In T. D. Afifi & W. A. Afifi (Eds.), *Uncertainty, information management, and disclosure decisions: Theories and applications* (pp. 87–105). New York: Routledge.
- Afifi, W. A., & Weiner, J. L. (2004). Toward a theory of motivated information management. *Communication Theory, 14*, 167–190. doi:10.1111/j.1468-2885.2004.tb00310.x
- Afifi, W. A., & Weiner, J. L. (2006). Seeking information about sexual health: Applying the Theory of Motivated Information Management. *Human Communication Research, 32*, 35–57. doi:10.1111/j.1468-2958.2006.00002.x
- Autismspeaks.org (2016). What is Autism? *Autismspeaks.org*. Retrieved September 22, 2016 from autismspeaks.org
- Behr, S. K., Murphy, D. L., & Summers, J. A. (1992). *User's manual: Kansas Inventory of Parental Perceptions (KIPP)*. Lawrence, KS: Beach Center on Families and Disability.
- Biesecker, B. B., Erby, L. H., Woolford, S., Adcock, J. Y., Cohen, J. S., Lamb, A., Lewis, K. V., et. al (2013). Development and validation of the psychological adaptation scale (PAS): use in six studies of adaptation to a health condition or risk. *Patient Education and Counseling, 93*, 248-254. doi:10.1016/j.pec.2013.05.006
- Bluth, K., Roberson, P. N., Billen, R. M., & Sams, J. M. (2013). A stress model for couples parenting children with au-

Hays

- tism spectrum disorders and the introduction of a mindfulness intervention. *Journal of Family Theory & Review*, 5, 194-213. doi:10.1111/jftr.12015
- Center for Disease Control (2016a, July 11). *Data and Statistics*. CDC.gov. Retrieved September 22nd, 2016 from <http://www.cdc.gov/ncbddd/autism/data.html>
- Center for Disease Control (2016b, March 28th). *Facts about ASD*. CDC.gov. Retrieved September 22nd, 2016 from <http://www.cdc.gov/ncbddd/autism/facts.html>
- Clafin, C. J., & Barbarin, O. A. (1991). Does “telling” less protect more? Relationships among age, information disclosure, and what children with cancer see and feel. *Journal of Pediatric Psychology*, 16, 169-191. doi:10.1093/jpepsy/16.2.169
- Ekas, N. V., & Whitman, T. L. (2011). Adaptation to daily stress among mothers of children with an autism spectrum disorder: The role of daily positive affect. *Journal of Autism and Developmental Disorders*, 41(9), 1202-1213. doi:10.1007/s10803-010-1142-4
- Faw, H., (2014). *Supporting the supporter: Social support, stress, and well being among caregivers of children with severe disabilities*. Unpublished doctoral dissertation, University of Washington.
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science and Medicine*, 45, 1207-1221. doi:10.1016/S0277-9536(97)00040-3
- Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American Psychologist*, 55, 647. <http://psycnet.apa.org/doi/10.1037/0003-066X.55.6.647>
- Fowler, C., & Afifi, W. A. (2011). Applying the theory of motivated information management to adult children’s discussions of caregiving with aging parents. *Journal of Social and Personal Relationships*, 28(4), 507-535. doi:10.1177/0265407510384896
- Hays, A., & Colaner, C. (2016). Discursively constructing a family identity after an autism diagnosis: Trials, tribulations, and triumphs. *Journal of Family Communication*, 16(2), 143-159. doi:10.1080/15267431.2016.1146722

- Huws, J. C., & Jones, R. S. (2008). Diagnosis, disclosure, and having autism: An interpretative phenomenological analysis of the perceptions of young people with autism. *Journal of Intellectual and Developmental Disability, 33*, 99-107. doi:10.1080/13668250802010394
- Leung, L. (2002). Loneliness, self-disclosure, and ICQ ("I seek you") use. *Cyber Psychology & Behavior, 5*, 241-251. doi:10.1089/109493102760147240
- Lyons, R. F., Mickelson, K., Sullivan, J. L., & Coyne, J. C. (1998). Coping as a communal process. *Journal of Social and Personal Relationships, 15*, 579-607. doi:10.1177/0265407598155001
- Todd, S., & Shearn, J. (1997). Family dilemmas and secrets: Parents' disclosure of information to their adult offspring with learning disabilities. *Disability and Society, 12*, 341-366. doi:10.1080/09687599727218
- Vangelisti, A. I., Caughlin, J. P., & Timmerman, L. (2001). Criteria for revealing family secrets. *Communication Monographs, 68*, 1-27. doi:10.1080/03637750128052
- Ventola, P., Kleinman, J., Pandey, J., Wilson, L., Esser, E., Boorstein, H., Dumont-Mathieu, T., et al. (2007). Differentiating between autism spectrum disorders and other developmental disabilities in children who failed a screening instrument for ASD. *Journal of Autism and Developmental Disorders, 37*, 425-436. doi:10.1007/s10803-006-0177-z
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063. <http://psycnet.apa.org/doi/10.1037/0022-3514.54.6.1063>
- Wheeler, M. (2003). Getting started: Introducing your child to his or her diagnosis of autism or Asperger syndrome. *The Reporter, 9*, 1-5. Retrieved November 8, 2014 from <http://www.iidc.indiana.edu/index.php?pageId=362>
- Wheless, L. R., & Grotz, J. (1976). Conceptualization and measurement of reported self-disclosure. *Human Communica-*

Hays

tion Research, 2, 338-346. doi:10.1111/j.1468-2958.1977.tb00523.x

Cybersecurity Otherwise: Seeking Communicative Insights

Matthew P. Mancino
Duquesne University

This paper calls for a communicative re-consideration of cyber attacks and cyber warfare. Working from a communicative understanding of both cyberspace and cyber attacks as explicated by Lance Strate (1999) and David Gunkel (2001, 2007), I seek to explore broadened conceptions of cyberspace, the nature of cyber attacks, and suggest ways to begin thinking about appropriate responses to cyber attacks. This paper examines recent 2014 cyber attacks on Target, The Home Depot, and J. P. Morgan Chase as exemplar cases to understand the current way cyber attacks are being handled and understood by companies. Ultimately, this essay recognizes a need to reconsider definitions of cyber attacks and cyber warfare as a means to encounter creative and innovate responses that think and act otherwise.

Keywords: Cyberspace, cyber attacks, cyber warfare, cyber terrorism, hacking, Lance Strate, David Gunkel.

Introduction

According to FBI Director James Comey, “There are two kinds of big companies in the United States. There are those who’ve been hacked...and those who don’t know they’ve been hacked” (para. 2). Walters (2014) explains “most companies encounter multiple cyber attacks every day, many unknown to the public and...the companies” (para. 4). In 2014, cyber crime cost U.S. retail stores an average of “8.6 million” dollars per attack (para. 2). Paul Szoldra (2015) reported that in 2015 cyber attacks caused the leak of “nearly 300 million records” and theft of “over \$1 billion” (para. 1). Recently, 2016 has seen an international attack which affected a “number of popular websites” including Twitter, Etsy, Github, Vox, Spotify, Airbnb, Netflix and Reddit (O’Brien, 2016, para. 1, 2). Additionally, the growing threat of cyber attacks and the call for cybersecurity has been made in each of the three 2016 Presidential Debates and the Vice Presidential Debate, where Governor Mike Pence announced cyberwar as the “new warfare of the asymmetrical enemies that we face in this country [the United States]” (C-SPAN). Cyber

Mancino

attacks have grown in number and severity since 2014, calling for improved cybersecurity measures.

Cyber attacks are a rapidly increasing threat facing the twenty-first century. Simon Liu¹ and Bruce Cheng² (2009), writing for *IT Professional*³ on cyber attacks and security, turn to Sun-Tzu's understanding of war to inform their approach to cybersecurity. Sun-Tzu believed:

If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat... If you know neither the enemy nor yourself, you will succumb in every battle. (Tzu, 1910, p. 52).

Likewise, for Liu and Cheng, “knowing your enemies [hackers] is only the first step to bettering your chance of winning cybersecurity battles” (p. 21). In addition, organizations must know themselves through knowledge of “security strengths and weaknesses” (p. 21). The first step to adequate cybersecurity is knowledge of the attacker and your defense system. Liu and Cheng put forth a call to understand, not only the attacker, but the defensive ground on which a nation, organization, or person stands. This paper reviews understandings of cyberspace, cyber attacks, and cyberwar in order to glean communicative insights for a framework of “thinking otherwise” (Gunkel, 2007) about cybersecurity.

This paper moves through four sections. First, communicative understandings of cyberspace and hacking are reviewed. This section expands conceptions of cyberspace and hacks to point to the salience of adequate cybersecurity. Next, the paper reviews understandings of cyberattacks from hacks to the disputed nature of cyberwar. Third, a case study of the 2014 cyber attacks on Target, The Home Depot, and J. P. Morgan Chase is introduced. These attacks are important because they highlight the dynamic, evolving nature of cyberattacks and cybersecurity. Finally, the essay provides implications and a framework for thinking otherwise about cybersecurity in the twenty-first century.

This paper contends that, due to the fluid nature of cyberspace

and hacking, cybersecurity requires a thinking otherwise outside of internet-based responses. Defensive responses within the existing infrastructure of cyberspace limit possibilities for adequate, lasting cybersecurity. By engaging responses to cyber attacks outside of the closed system of the internet, adequate defense strategies can be construed. Reviewing cyberspace, cyber attacks, and cyberwar facilitates the understanding of the beginning to adequate cybersecurity through knowledge of the self, enemy, and battlefield.

Cyberspace and Hacking: A Communication Perspective

Communication scholar and media ecologist Lance Strate (1999) speaks to the limited knowledge of the battlefield and describes cyberspace as “vague and drained of meaning” due to “everywhere[-ness]” and “widening usage” of the term (p. 383). For Strate (1999), the “fundamental issue” with cyberspace “is one of definition and delimitation” (p. 382). This section seeks to review understandings of cyberspace and hacking to point toward what is at stake for loss in cyber attacks. First, the work of Yehuda Kalay⁴ and John Marx⁵ (2003) is introduced. Their work champions the fluid nature of cyberspace. Next, Lance Strate’s (1999) taxonomy of cyberspace and articulation of a hack is reviewed. The section concludes with David Gunkel (2001), who expands the definition of cyberspace and offers a description of hacking as a defect that always resides within the infrastructure of cyberspace. These scholars work together to articulate a perspective that recognizes the fluidity of cyberspace and the inevitability of cyber attacks.

Kalay and Marx (2003) re-consider cyberspace as a “place,” offering an “*architecture*,” rather than a “*document*,” metaphor (pp. 19–20). Kalay and Marx (2003) suggest the “*document* metaphor” is currently guiding developers to navigate cyberspace (p. 19). The document metaphor considers cyberspace a “means for *accessing* information, rather than a means for *inhabiting* the information space itself” (p. 19). The document metaphor sets parameters for cyberspace to be considered a massive library catalog used to access desired information and limits conceptualizations of cyberspace to the Internet and technology. Likening cyberspace to a document “falls short of conveying the *socially* and *culturally* rich experience we derive from conceptualised, place-

Mancino

specific information gathering” (p. 19). The document metaphor is limiting our understanding of and engagement with cyberspace.

The architecture metaphor expands cyberspace from the limited engagement offered by the document metaphor. The architecture metaphor makes the claim that one can “inhabit” cyberspace through a “combination of *spaces, activities, and conceptions*” (p. 20). To understand the construction of cyberspace within the architecture metaphor, Kalay and Marx (2003) offer “*place-making*,” as opposed to the “*page-making*” of the document metaphor (p. 20). Cyberspace is a dynamic place, rather than a stagnant page. In the dynamic realm of cyberspace, people inhabit places where they engage in buying, selling, communicating, and sharing ideas with others. Cyberspace can be understood from an architecture metaphor, where people construct and inhabit a place that is fluid and constantly changing.

The architecture metaphor is informed by conceptions of place offered by Heidegger, Chastain and Elliot, and Champion and Dave, who Kalay and Marx (2003) bring into conversation to support cyberspace as an inhabitable place. From this scholarship, Kalay and Marx (2003) situate a place as “activated by social interactions, and invested with culturally-based understandings of behavioral appropriateness” (p. 20). In a place, people interact with one another and the behaviors in their interactions are deemed appropriate by cultural beliefs. Kalay and Marx (2003) discuss the emergence of a “shared ‘sense of place’,” which helps people “orient themselves with respect to the space they occupy and with respect to each other, and thereby establish social references that direct their behavior in a way that gives meaning to their activities” (pp. 20-21). A place cannot exist without interactions with another person. Place is situated as a setting that dictates norms for appropriate behavior and designates meaningful activities.

Kalay and Marx (2003) explain the ways cyberspace differs from a physical space. The first difference between physical and cyberspace is that cyberspace “can only be experienced through the mediation of computers” (p. 23). However, although cyberspace is experienced through computer mediation, “we can accept cyber-inhabitation as real...[it is] a phenomenon regularly ex-

ploited by the motion picture industry” (p. 24). Although cyberspace is mediated by computers, the perception of the action on-screen is perceived as real by the user. The second difference is that cyberspace “does not have to obey the laws of nature” (p. 23). Cyberspace can be manipulated and navigated in ways that physical space cannot. Users are then free to violate the “‘laws of nature’ at will” (p. 24). Cyberspace, despite only being accessible through computers, changes the experience of physical reality by allowing the manipulation of the laws of nature.

Strate (1999) also considers cyberspace beyond the document metaphor and offers a broad, re-conceptualized understanding of cyberspace beyond Kalay and Marx’s architecture metaphor. Strate (1999) provides a communicative understanding of cyberspace by developing and organizing qualities of cyberspace into a three-level taxonomy of zero, first, and second order cyberspace. Within the discussion of second order cyberspace Strate (1999) also considers the component of the cyber invasion of intimate space, which can be understood as a type of hack or cyber attack.

The first entry in Strate’s (1999) taxonomy that offers an expansive consideration of cyberspace is zero order cyberspace (p. 383). Zero order cyberspace features the two “key concepts” of “paraspace or nonspace” and “spacetime” (pp. 384, 386-387). The concepts within zero order cyberspace work together to establish the reality of cyberspace. Paraspace/nonspace represents a “sense of ‘a space that is not a space’” that requires poetic interpretation (p. 387). According to Baudrillard (1983), a paraspace can be “viewed as a simulation, which would make it hyperreal rather than unreal” (cited in Strate, 1999, p. 388). Strate (1999) summates this first key concept as “*cyberspace as a paraspace or nonspace, is a fictional, imaginary, or unrealized space, a seemingly paradoxical space that is not a space, a fake space or simulation,*” resonating with Baudrillard’s description of Disney (p. 388). For Strate (1999) “cyberspace serves to reinforce our belief in the objective reality of physical space” (p. 388). As a non-space, cyberspace reminds individuals of the reality of physical space.

The second key concept of zero order cyberspace is cybertime. Strate (1999) suggests that cyberspace must not be considered in “common sense conceptions of space” but rather in terms of Ein-

Mancino

stein's theory of relativity (p. 388). Strate (1999) proposes one can extend Einstein's "four-dimensional spacetime" to "cyberspacetime, and of events occurring in *cybertime*" (p. 389). Strate (1999) places events of typing a document or browsing the web in cybertime and act as the "basis from which a sense of space is constructed" (p. 389). Human-computer interactions in cyberspace are thereby a result of cybertime. Zero order cyberspace situates cyberspace as a hyperreal nonspace that is constructed in cybertime.

The next entry in Strate's (1999) taxonomy is first order cyberspace, which is further categorized into physical, conceptual, and perceptual space (p. 390). First order cyberspace is a physical space in terms of the "*material base of computers*" (p. 391)—modems, drives, monitors, etc. Physical cyberspace is the nuts and bolts that permit human-computer, computer-computer, and human-computer-human interactions. A physical component is necessary for the existence of cyberspace.

First order conceptual cyberspace is described as "*the sense of space generated within the mind as we interact with computer technology*" and is further divided into components of "*logical cyberspace*" and "*metaphorical cyberspace*" (Strate, 1999, pp. 391–393). Logical cyberspace is explored by manipulating URLs to navigate the Internet and probabilities are used to determine what should logically appear where. A person exploring the web would logically deduce that the "about" section of the website would appear in the URL as "[name of website]/about." In conceptual, logical first order cyberspace the mind generates a space based on logic through interacting with the computer technology.

Conceptual, metaphorical first order cyberspace situates cyberspace in "metaphor[s]" such as the "*electronic frontier*" and the "*information superhighway*" (Strate, 1999, pp. 392–393). Metaphorical cyberspace generates a poetic state of mind as the computer is used. However, Strate cites Bachelard to argue that "metaphorical space is more than just *poetic space*" metaphorical cyberspace is a "*rhetorical space*" that exists as a "conceptual space constructed by human beings to influence other human beings" (p. 393). Strate (1999) suggests the rhetoric of metaphorical cyberspace influences others that cyberspace is an unknown

“frontier to explore” (p. 395). In conceptual, metaphorical first order cyberspace the rhetoric of the poetic language attempts to influence other humans and their perception of cyberspace.

Perceptual, first order cyberspace exists “between physical space and conceptual space” as “the impression of space that we obtain through one or a combination of our senses” (Strate, 1999, p. 396). For State (1999), virtual spaces are formed by “any perceptual cyberspace [which] allows us to suspend our disbelief and achieve the illusion of immersion” (p. 397). Perceptual, first order cyberspace is a confusion of the senses that transforms the perception of cyberspace into a physical place. According to Rheingold (1991), “the evolution of computer technology has been towards putting greater and greater distance between the user and the hardware” (as cited by Strate, 1999, p. 396). Strate (1999) suggests devices used to enlarge the distance between user and hardware—speakers, monitors, and computer mice—“provide cyberspace with its own unique identity” (p. 397). Perceptual cyberspace, first order cyberspace can then be paralleled to Kalay and Marx’s (2003) “cyber-inhabitation” wherein users accept what is on the monitor as real. One sees a video of a waterfall on a computer monitor, encountering the audio-visual components as if the monitor dissolves and a physical space emerges. Within first order cyberspace, all three sub-components work together to create a distinct individual experience. Physical components provide a conceptual framework (informed by logical and metaphorical/rhetorical engagement) that shape perceptions of cyberspace.

The final entry in the expansive taxonomy of cyberspace is second order cyberspace, a synthesis of “transmission and reception” in “human symbolic transactions” (Strate, 1999, p. 386). The term “*cybermedia space*,”⁶ refers to “*the sense of space generated through the user’s communication with and through computers and related technologies*” within second order cyberspace (p. 386). Cybermedia space is characterized by aesthetic, information/data, and interactive/relational spaces (p. 400). Aesthetic space is “used to communicate ideas and express emotions” based on the physical, logical, metaphorical, and/or perceptual cyberspace employed by the message (p. 400). For instance, the size, place, and viewer distance in physical space from an emoticon determines its interpretation and meaning. A message ex-

Mancino

pressed by and on the physical components⁷ of cyberspace occupies aesthetic space in second order cyberspace when it results in the transmission and reception of a metaphoric or rhetorical concept (emotion) and results in a symbolic transaction (in this instance, a change in perception of emotion).

Information/data space within second order cyberspace is considered a privileging of “content rather than form” (Strate, 1999, p. 401). Conceptions of data space can be simplified to “the two-way exchange of information” transferred between users (p. 402). Information or data space is a transmission and reception of information such as numbers for transactions occurring in second order cyberspace. To return to the emoticon example, the only information that would matter would be if a face were frowning, smiling, crying, etc. The size, placement, and physical distance from the emoticon would play no role in the transfer of meaning. This transfer of information is concerned only with ensuring the correct message content was sent.

Interactive/relational space within second order cyberspace is the “bi-directional aspect of cybermedia” (Strate, 1999, p. 402). Interactive/relational space is composed by the sense of space “produced by the individual interacting with and entering into a relationship with a computer, or with others through a computer” (p. 402). Strate (1999) categorizes these bi-directional relationship spaces into Buber’s (1958) I-Thou and I-It terminologies (p. 402). This explication of human-computer relations expands cyberspace to be inclusive of the invasion of intimate cyberspace.

There are three stages to the I-It relationship. The first stage is the I-It human-computer relationship that sees the computer as an object, focusing on the physical cyberspace occupied by the computer (Strate, 1999, p. 402). In the second stage, “the interface becomes more or less transparent” and “perceptual and conceptual cyberspaces are constructed” (p. 402). The person begins to see beyond the computer as a physical object and explores the “electronic landscape,” “form[ing] mental maps of where the files are” (p. 402). The third stage emerges from “familiarity,” when cyberspace becomes a cyberplace (p. 403). Out of a third stage I-It human-computer relationship, the ability for an I-Thou relationship can appear. In a third stage I-It human-computer relationship, the computer becomes “personalized” (p. 403). Strate

(1999) then asserts a computer, in addition to being a personal space, can also become a “social space” in a “multiuser environment” (p. 403). As one gains familiarity with a computer, the computer passes through the three stages of I-It human-computer relationships and the computers, in an I-Thou encounter, become an extension of the user.

The I-Thou human-computer relationship opens the opportunity for a hack or attack. The I-Thou relationship creates an “*intimate cyberspace*,” or a “merg[ing]” of person and computer (pp. 403–404). This intimate cyberspace can be invaded by unwanted others. The invasion of intimate cyberspace is as an “unwanted invasion of our intimate space...mak[ing] us feel uncomfortable” and exemplified by activities such as “hacking, employers reading employee email, [and] computer virus[es]” (pp. 403–404). A cyber attack can be correlated to a hacking of intimate cyberspace. Communication scholar David Gunkel (2001) contends with issues of both cyberspace and hacking (a characteristic of a cyber attack) that aid in understanding cyberspace and cyber attacks from a communication perspective.

Gunkel (2001) echoes Strate (1999) in recognizing the complexity in defining cyberspace and cyberhacking. Gunkel expands the notion of cyberspace beyond Strate’s taxonomy. Gunkel (2001) rejects limited, Internet-focused definitions of cyberspace for those “compris[ing] an entire system of ideas, practices, operations, and expectations” associated with technology (p. 11). Cyberspace is constituted by actions and ideas, which emphasize the significance of cyber attacks and cyberwar. The effects of cyber attacks expand beyond cyberspace, affecting not merely a page of information, but rather a relational place of ideas between human-computer and human-human interactions.

Gunkel’s (2001) understanding of hacking can create an entrance for a thinking otherwise for cybersecurity. Hacking, while typically pejoratively construed, can be constructively understood. Gunkel (2001) situates hacking as a split between “creative innovation” and “illicit behavior,” despite that it is often likened to “*parasitic activity*” (pp. 4–5). However, a parasite “works within its host in a manner that simultaneously preserves and sustains that in which and on it functions” (Gunkel, 2001, p. 5). Parasites must keep their host alive to ensure their survival. Hacking, like a

Mancino

parasite, exists and “develops from a necessary and unavoidable deformity [within cyberspace] that always and already resides within and defines the proper formation of the system itself” (p. 8-9). Hacking is an in-eradicable function of cyberspace, with “neither a good nor bad” outcome but rather a “general strategy” to “explore and manipulate” online domains (pp. 20-21). Hacking is an irremovable defect that is inherent within cyberspace and the outcome of a hack is determined by the motivation of a hacker.

This research supports the claim that cyberspace and hacking are fluid and dynamic. Kalay and Marx offer a helpful starting point for understanding the dynamism of cyberspace with the recognition that it is not a page. However, in *Mapping Cyberspace* (2000), Martin Dodge and Rob Kitchin counter Kalay and Marx’s conception of cyberspace as a place by suggesting, “cyberspace renders place meaningless, identities fluid and reality multiple” (p. 39). While disagreeing on the possibility of place in cyberspace, both recognize the centrality of fluidity for understanding cyberspace. Communication scholars likewise recognize the fluidity of cyberspace and expand it to encompass a system of ideas and practices beyond the internet. Cyberspace is constructed by online users that send logical, metaphorical, and rhetorical messages to and through the physical elements of computers to other users. Hacking is a potential act always contained within the infrastructure of cyberspace and is detrimental or beneficial dependent upon the intention of the hacker. The development of intimate cyberspace through the entanglement of humans and computers places the protection of our memories, monetary assets, and identities at risk as a result of cyber attacks. After having reviewed understandings of cyberspace and hacking, the next section of the paper takes a closer look at the continuum of hacking severity to help frame an adequate cybersecurity.

Cyber Attacks and War: A Rung Above Hacking?

Similar to the dynamism of cyberspace, definitions of cyber attacks, war, and defense systems are fluid (Akhunzada, A., et. al, 2015; Kremer, J., 2014; Huang, Y., et. al, 2013; Li, X., et. al, 2012; O’Hara, G., 2010; Gao, Z. and Ansari, N., 2005). This section of the paper reviews understandings of cyber attacks to offer a model for effective cybersecurity. There is an ongoing debate

surrounding cyber conflict. Scholars place a distinction between cyber attacks and cyberwar. Typically, hacks are the low end of the conflict spectrum, perhaps, as Gunkel (2001) reminds us, due to their unavailability within the structure. Indeed, “conflicts in cyberspace are a reality: elements of any political, economic and military conflict now take place in and around the Internet” (Cavelty, 2010, p. 1). Rid (2012) textures the cyber conflict debate by suggesting that cyberwar has “never happened in the past,” “does not take place in the present,” and is “unlikely to occur in the future” (p. 5). The warrant for this claim is found in the definition of war established by Carl von Clausewitz⁸ (as cited by Rid, 2012), who characterizes war as having a “violent” and “instrumental character” of a “political nature” (pp. 7–8). Using this framework, war includes an *act of force* that is used as a *means* to achieve a *political end*. In order to help categorize the fluidity and severity of cyber conflicts, Cavelty (2010) constructs a metaphorical ladder and affirms the centrality of hacker motivation in the severity and categorization of the hack (p. 1). Cavelty’s (2010) ladder is used as a framework to situate the discussion of various levels of hacks.

The bottom rung of Cavelty’s (2010) ladder is situated as “cyber vandalism and ‘hactivism’” (p. 1). Cavelty (2010) contends that such attacks are the “modification or destruction of content, such as the hacking of websites, or turning off a server by data overload” and the effects are “temporary and relatively harmless” (p. 1). Gartzke (2013) textures this contention by suggesting that the nature of *all* warfare in cyberspace *only* renders temporary damage. However, Gartzke (2013) finds that temporary damage can be beneficial when the attack “compromise[s] or incapacitat[es] networks” to give “tactical, or even strategic advantages” (p. 57). Additionally, when combined with “kinetic warfare,” the cyber attack “can convert temporary advantages... into a lasting effect” (p. 57). Hactivism and cyber vandalism can be relatively harmless depending on the motivation of the attacker. For Cavelty (2010), they require the lowest attention, but should the hacker be pursuing a larger political agenda, they can pose major threats.

The second and third rungs of the ladder are grouped together and are, respectively, “cyber crime and cyber espionage” (p. 1). Cavelty (2010) contends that both cyber crime and espionage

Mancino

“take place all the time and independently of conflict,” targeting the “private sector” (p. 1). Cyber crimes and espionage are situated as attacks against civilians, rather than nations. Kumar (2014) expands an understanding of cyber crime, by noting the primacy of data theft in cyber attacks (p. 327). Data theft can have serious ramifications for an organization, including “loss of time,” “monetary loss,” “disabled or crippled services,” and “legal exposure” (p. 327). Cyber crime, when targeted at data theft, imposes recovery costs.

Rid (2012) can texture an understanding of cyber espionage by suggesting that cyber espionage is “merely [a] sophisticated version” of traditional espionage in warfare (p. 5). Rid (2012) dismisses such “cyber offenses,” situating them as “neither common crime nor common war” (p. 15). For Rid (2012), the purpose of a cyber offense is “subverting, spying, or sabotage” (p. 15). In sabotage, “*things are the prime targets, not humans-*” (p. 16). Subversion is situated as the “deliberate attempt to undermine the authority, the integrity, and the constitution of an established authority” (p. 22). However, espionage is defined as “neither crime nor war,” but rather an “attempt to penetrate an adversarial system for purposes of extracting sensitive or protected information” (p. 20). Cavelty’s (2010) grouping of cyber espionage and cyber crime is then justified, as both attempt to steal data from a target computer.

The fourth rung on Cavelty’s (2010) ladder is “cyber terrorism” (p. 1). Cavelty (2010) identifies cyber terrorism as “unlawful attacks against computers, networks and the information they store” (p. 1). Cyber terrorism can be likened to cyber crime and espionage, as all three represent unlawful attacks aimed at data theft, but the differentiation lies in the intent of cyber terrorism, the intimidation or coercion of a government or civilians “in furtherance of political or social objectives” (p. 1). Considered from the definition of war outlined by Carl von Clausewitz, cyber terrorism only lacks the component of *violence*.

The fifth and final rung of Cavelty’s (2010) ladder contains “cyberwar” (p. 1). Cavelty (2010) situates cyberwar as “the use of computers to disrupt the activities of an enemy country, especially deliberate attacks on communication systems” (p. 1). This

point is parallel to Rid's (2012) definition of sabotage; however, Rid situates cyber sabotage as a "sophisticated version" of previously existing methods of sabotage (p. 5). Caveltly (2010) considers cyber war a reality whereas Rid (2012) considers cyber offenses open a new avenue for traditional methods of sabotage, subversion, and espionage to be carried out. According to Rid (2012), cyber attacks fail to meet the criterion of violence, as no cyber attack "has ever caused the loss of human life" or directly "injured a person" physically⁹ (p. 11). As no cyber attack has met the criteria as an act of violence with a specified political end, Rid (2012) contends cyberwar has "more metaphoric than descriptive value," and likens it to the "war" on obesity. Rid's (2012) notion that "cyber war is not really war" (p. 49) prompts Gartzke's (2013) warning that "this perspective risks becoming a purely academic exercise...if cyber conflict eventually supplants military violence" (p. 49). The presence of cyberwar in the future cannot be entirely debunked.

Libicki (2012) expands a consideration cyberwar by a comparison to physical, kinetic war, in terms of space and defensive/offensive strategies. Libicki (2012) argues that traditional war methods are "not helpful" for "understanding what can and should be done to defend and attack networked systems" (p. 322). Libicki (2012) compares physical space (exemplified by a city) to cyberspace. Where both the city and cyberspace are man-made, the former remains stagnant while the latter is "highly malleable" (p. 324). Libicki's (2012) cyber offense is a "reverse-engineering [of] target systems to understand how they may be vulnerable to attacks," and defense is an "engineering [of] systems to make them resistant to attacks" (p. 331). Offensive strategies attempt to "control the Internet in order to interfere with civilian activities," opposed to kinetic war which does not target civilians (p. 328). Offensive strategists seek to "find...target...and disable" servers; however, such "search and destroy missions" are "less productive" against stronger foes (pp. 329–330). Additionally, cyber attacks are "hard to repeat," due to the malleable nature of cyberspace which constantly updates defense systems (p. 331). Defensive maneuvers in cyberspace are simply the attempt to fortify cyberspace so that "it is less tolerant of attack" (p. 326). Libicki (2012) considers that war in cyberspace is complimentary to war in physical space; cyber attacks can only strengthen physical attacks by giving the aggressor a temporary

Mancino

advantage through a security breach. Libicki's research is consistent with Gunkel's communication perspective, where hacking is a deficiency that exists within the cyberspace infrastructure. A determined hacker can inevitably breach improved security measures.

Cyber attacks and cyberwar are raising concerns about International Humanitarian Law (IHL). Kelsey (2008) draws attention to the principle of distinction, which (a) requires distinction between "civilian objects... and military targets;" and (b) prohibits attackers from transporting "troops, weapons, or other materials of war across the territory of a neutral state" (pp. 1436, 1442). Cyber attacks violate the principles of distinction and neutrality by attacking civilian servers and sending information through the servers of neutral countries. Kelsey (2008) urges for amendments to IHL to clarify the legality of these attacks and so that the severity of cyber weapons can be better understood (p. 1450).

There is much debate over the presence or absence of cyberwar, but undeniably, cyber attacks exist and are increasing in number. Scholars considering these questions (Kumar, 2014; Cavelti, 2010) encourage us to consider and categorize attacks through the motivation of the hacker. Cyber conflicts raise questions on International Humanitarian Law, as the servers of neutral countries can be involved and civilians are the direct targets. According to Carl von Clausewitz's foundational definition of war, war requires an instrumental character that directs violent action to achieve a political end. Although violence has been excluded from some considerations of cyber war, as our identities become increasingly wrapped up in intimate cyberspace, an opening for cyberviolence emerges. Additionally, Hartnett (2011) suggests, "peace-time computer intrusions...are tests for what will become war-time actions" (p. 422). Cyber attacks in times of peace, such as cyber crime, are reflective of how cyber attacks will appear in times of war. This points to an area of concern in existing definitions of cyber attacks and war: if hacks in times of peace represent the form of attacks in times of war, can hacks be differentiated from attacks and war? Cyber attacks, whether in times of peace or times of war, require an adequate cybersecurity for the protection of the personal assets wrapped up in intimate cyberspace. The next section of the paper turns to a case study of salient 2014 cyber attacks to understand existing cybersecurity de-

fense strategies.

2014 Cyber Attacks

In 2014, the United States saw a major increase in cyber attacks on major organizations. In January 2014 Target released information that “70 million individuals” had “contact information” stolen, in addition to the “40 million customer’s credit and debit card information” taken in December 2013, making a total of 110 million victims (Walters, 2014, para. 6). In response to the cyber attack, Target fired CEO Gregg Steinhafel who had been at the company for 35 years (Townsend, 2014, para. 4). The company claimed that Steinhafel moved “too slowly in shoring up the chain’s defenses even after being warned that point-of-sale terminals were vulnerable to cyber criminals,” ignoring “warnings from its hacker-detection tools” (para. 6). In addition to removing the CEO, Target took initiative to increase their cyber defenses, “rushing” to create a “strategy for dealing with breaches” (para. 10). Additionally, the “National Association of Corporate Directors has created an eight-part video series,” explaining “basic issues to boards and how they can deal with the risk” of cyber attacks (para. 11). Results of these initiatives have strengthened detection and increased response time (para. 12). Although the defensive strategies are quickening response times and defenses against known malware, attacks are still occurring due to the inevitable presence and nature of hacking within cyberspace.

A second major cyber attack occurred on The Home Depot in September 2014. In this attack, “56 million shoppers” had their credit card information stolen (Walters, 2014, para. 22). The Home Depot responded to the cyber attack through a press release to inform constituents additional details of the attack and their defensive maneuvers. The Home Depot (2014) reports, “the malware used in the attack had not been seen in any prior attacks and was designed to evade detection by antivirus software” (p. 1). The Home Depot (2014) also conducted an investigation in “cooperation with law enforcement and efforts to further enhance its security measures” (p. 1). In addition to bolstering security measures, The Home Depot (2014) offered “free identity protection services” to affected customers (pp. 1–2). As the malware in the attack had not been seen before, this represents the fluid, evolving nature of cyberspace on both sides of hacking and cybersecurity. The Home Depot responded to this cyber attack with

Mancino

a press release to convey organizational transparency in the attempt to restore trust in the company.

A third major attack occurred in June 2014 on J. P. Morgan Chase. This attack went unnoticed until August (Walters, 2014, para. 29). In this attack, “76 million households and 7 million small businesses” had their contact information stolen (para. 29). Glazer (2014) presents a timeline of J. P. Morgan’s response initiatives. In mid-August, J. P. Morgan Chase employees on “technology and cybersecurity teams began working to examine data on any server that was compromised, led by a core team of around 20 bank executives” (Glazer, 2014, para. 3). In late-August, the FBI began investigating the attacks. On September 11, J. P. Morgan reiterated to customers that the “investigation is ongoing” (para. 6). On October 2, a company representative reminded people to “make sure they’ve ‘fortified’ their own defenses” which includes acts of “logging off workstations, changing passwords often” and creating difficult passwords (para. 7). In addition to this pro-active defense strategy, Durisin (2014) reports J. P. Morgan Chase “encourage[ed] customers to contact” the bank with any questions, conveying transparency to members (para. 10). Lastly, J. P. Morgan Chase “plans to spend \$250 million a year on digital security” (Martin, 2014, para. 15). J. P. Morgan Chase, similar to The Home Depot, responded to the attack with transparency to customers and the promise to invest in stronger security defense systems.

Cyber attacks on organizations are rising in number and severity, drastically increasing since 2014. The organizational responses to the attacks all followed a similar model: the enactment of enhanced defensive strategies and the conduction of investigations around the attacks. The results of the investigations all pointed to a similar source. The code is suspected to have originated from Russia, as the name was “‘*BlackPOS*’... also known as ‘*Kaptox*’ (‘*kartoshka*’, or ‘*potato*’ in Russian),” and the code contained other “Russian words” (Home Depot, para. 7). Additionally, the malware used in The Home Depot attacks was found to be a “modified version of the one used for the Target data breach” (para. 9). Goldstein et. al (2014) reports the hackers in the J. P. Morgan Chase attacks “are thought to be operating from Russia and appear to have at least loose connections with officials of the Russian government” (para. 2). The attacks were

speculated as a response to “US sanctions against Russia amid the ongoing crisis in Ukraine” (Logiurato, 2014, para. 6). The investigations by Target, The Home Depot, and J. P. Morgan Chase all pointed to software from a foreign nature.

These case studies follow a model for hacking and defense strategies in cyberspace. Organizations are being attacked and their defense strategies are to conduct investigations and build stronger defense systems. Unfortunately, due to the nature of the hacking deficiency that is always within cyberspace, as articulated by Gunkel (2001), even with stronger cyber defense and security, the potential for a hack exists. Responses to cyber attacks perpetuate a cycle of attack, stronger-defense, stronger-attack and the introduction of never-before seen malware as both cyberspace and attacks evolve. This is evidenced by the attacks on Target and The Home Depot. A successful attack was launched on Target and when the security measures were updated to prevent the attack, the code was modified and a variant, never-before seen strand was used on The Home Depot. Therefore, hacks call for a cybersecurity that is situated “otherwise” than simply upgraded defense systems (Gunkel, 2007). The final section of the paper will sketch implications for such an approach.

Implications Otherwise

Gunkel (2007) can be applied to help us think otherwise about cybersecurity through his work on the merging of the computer-mediated and physical worlds (p. 4). He finds contention with the “binary logic” that governs Western thinking and offers ways to think beyond the either/or, black and white, divisions in society (p. 2). “Binary logic” consists of two opposing sides that “agree upon the same fundamental values—an unquestioned anthropocentric ethics and metaphysics,” with preconceived notions about “who qualifies as an appropriate moral subject, what is really valuable and important, and where responsible activity may or may not be properly situated” (p. 4). Gunkel (2007) proposes that to solve problems within a binary opposition requires a “qualitatively different way of considering the philosophical dimensions of information and communication technologies” (p. 4). A binary opposition then can be summated as two opposing sides protecting different goods, but these different goods are rooted in the same fundamental values.

To help explain this point, Gunkel (2007) turns to the film *The Matrix*. In this film, the protagonist, Neo, is faced with a decision of taking a blue or a red pill—the blue pill will assimilate him into a world of illusions which are produced by the Matrix, and the red pill would wake him up and place him into the so-called “real-world.” This decision represents a binary opposition between “network idealism” and “naïve realism” (p. 11). A network idealist believes the computer creates a “techno-utopia,” a “new world of uninhibited freedom, boundless opportunity” (p. 11). A network idealist would select the blue pill, to be assimilated into the Matrix, because in the computer world there exists a greater potential to achieve “‘higher faculties’...[or] everything we believe makes a human life worth living” (p. 113). Network idealists would find life in the Matrix to be more fulfilling than life in the real-world.

Contrarily, a naïve realist perceives technology as “a threat to real human relations, real communities, and reality in general” (Gunkel, 2007, p. 11). A naïve realist would then select the red pill to be placed in the real-world. Choosing the red-pill and being placed into reality is “supported by a [2,500-year-old] philosophical matrix...at the center of Western thought” (p. 106). However, while taking the red-pill and the blue-pill represent opposing goods, they are both rooted in the same set of fundamental values. Both those who champion selecting the blue pill (illusion) over the red pill (truth) still advocate “the real and true over and against deceptive illusions” (p. 106). This example highlights how current frameworks of thinking are limited by Western philosophic thought. Binary oppositions—such as network idealism and naïve realism—are not solving the problems our modern day world faces regarding conceptions of cyberspace. Instead, we must think beyond binary oppositions that control “the field,” and appear “to delimit the only possibilities” (p. 118). To illustrate this “thinking otherwise” within the context of *The Matrix*, Gunkel envisions a Neo who, rather than choosing a blue or red pill, gets up and walks away, picking neither. In doing so, Neo would neither awaken to the real world nor be assimilated back into the Matrix (p. 117). In a similar manner, cyber security requires a thinking otherwise, something neither “predictable nor revolutionary, something outside of and beyond the logical oppositions of truth/falsity, reality/illusion, and good/bad” (p. 118).

We must re-consider our preconceived notions that limit the possible answers to solve cyber security problems.

First, conceptions of war need to be redefined and adjusted to a twenty-first century model. Using Clausewitz's definition of war creates a helpful starting point, but the component of violence must be re-considered and expanded beyond physical violence. As our identities become characterized by intimate cyberspace, a merging of humans and computers, hacks can be construed as a cyberviolence. Additionally, cyber attacks are altering the principle of distinction in International Humanitarian Law. Cyber attacks can be sent through the servers of neutral countries and directly targets civilians. The nature of cyber attacks and cyberwar are radically different than kinesthetic attacks and call for a thinking otherwise to develop adequate engagement and cybersecurity practices. Should we not withdraw from intimate cyberspace, hacks and cyberwar can be construed as cyberviolence.

Second, the binary split between hacking and cybersecurity provides preconceived answers to questions of defense and attack. These terms are imbued with connotations that shape our perception of the right answer. Hacking is often perceived as negative and cybersecurity as positive. However, as Gunkel (2001) reminds us, hacking is a deficiency within cyberspace that is always present. Additionally, hacking can be used, not only to breach enemy systems, but also to bolster home defensive systems, as weaknesses in the code are identified and re-designed. Yet, improving cybersecurity measures, while to some extent necessary, only perpetuates the cycle of attack, stronger-defense, stronger-attack. It is a response programmed by and expected within the system. To avoid the effects of cyber attacks, we require an otherwise response for bolstering cybersecurity—perhaps a withdrawal from the intimate cyberspaces we have created that opens us up to vulnerability in both the real and cyber world.

Finally, motivation in hacking, unless it is an attempt to find weaknesses in the friendly operating system in order to bolster, should always merit a response—whether hacktivism or cyberwar, these attacks exploit operating systems in order to cause harm. Should we not withdraw information from intimate cyberspace, computers become entangled in human identity.

Mancino

With identities becoming increasingly intertwined with intimate cyberspace, it is important to consider that the patterns of hacking in times of peace represent attacks in times of war. What is considered a hack one day may be part of a larger political war campaign the next.

Perhaps the most important move toward cybersecurity in the twenty-first century is a stepping outside the system, a thinking otherwise, comparable to what Gunkel (2007) imagines Neo's response could have been in *The Matrix*. Instead of choosing either the red or the blue pill, Gunkel (2007) envisions Neo getting up and walking away, to then live in the Matrix with the knowledge that the world that surrounds him is a computer simulation. Likewise, perhaps the best solution for cybersecurity is a similar thinking otherwise. Users need to explore and engage cyberspace with the recognition that the information they willingly supply can expose them and put them at risk for cyber attacks. Intimate cyberspace needs to be approached and constructed with trepidation, for hacking is a deficiency that always resides with cyberspace. The strongest cybersecurity begins with the individual recognizing the fluid nature of the attacker, defender, and battlefield, and thinking otherwise about how to protect themselves online.

Endnotes

1. According to IEEE, Simon Liu is “the director of the information systems at the US National Library of Medicine, National Institutes of Health” and an “adjunct faculty member at John Hopkins University” (2009, p. 21).
2. According to IEEE, Bruce Cheng is a “security consultant at Computer Sciences Corporation” and “the leader of the IT security team at the US National Library of Medicine, National Institutes of Health” (2009, p. 21).
3. *IT Professional* “is a bimonthly publication of the IEEE Computer Society for the developers and managers of enterprise information systems. Coverage areas include emerging technologies, Web services, Internet security, data management, enterprise architectures and infrastructures, software development, systems integration, and wireless networks” (*IT Professional*, para. 1).

4. Yehuda Kalay is currently employed as the Dean of Faculty of Architecture and Town Planning at the Technion, Israel Institute of Technology. Prior to this appointment, he has worked as a professor of Architecture at the University of California, Berkeley where he co-founded and directed the Berkeley Center for New Media (Faculty, 2014, paras. 1-2).
5. John Marx is currently employed as an English Professor at the University of California Davis Campus. His current research focuses on contemporary mass media (John, 2014, para. 1).
6. Strate (1999) notes that the terms “*computer media*” and “*hypermedia*” are also used interchangeably with the term *cybermedia space* (p. 386).
7. Modems, monitors, speakers, etc.
8. Plaw and Augé (2012) describe the significance of Carl von Clausewitz to understanding definitions of war. Clausewitz was an “early nineteenth century...Prussian Major-General” whose “work remains canonical for both scholars and practitioners of war today” (p. x).
9. The 2007 cyber attacks in Estonia, cited by Rid (2012) as a typical example of cyberwar, had “no violence, unclear goals, [and] no political agenda” (p. 15). The Russian attacks on Estonia were due to the decision of the Estonian Government moving a “memorial commemorating the Soviet liberation of the country from the Nazis to a less prominent and visible location” (Herzog, 2011, p. 49). The response from “Russian-speaking minorities” was “rioting” and “cyber terrorism targeting Estonia’s critical economic and political infrastructure” (Herzog, 2011, p. 49).

References

- Akhunzada, A., Ahmed, E., Gani, A., Khan, M., Imran, M., Guizani, S. (2015). Securing software defined networks: taxonomy, requirements, and open issues. *IEEE Communications Magazine*, 53(4), 36-44.
- C-SPAN (2016, October 4). Vice Presidential Debate Spilt Screen (C-SPAN) (Full Video) [Video File]. Retrieved from:
<https://www.youtube.com/watch?v=RQ91ZqLh26s>

Mancino

- Cavelty, M.D. (2010). "The Reality and Future of Cyberwar." European Parliamentary Brief delivered April 2010.
- Canter, D. (1977). *The Psychology of Place*. New York: St. Martin Press.
- Dodge, M. and Kitchin, R. (2001). *Mapping Cyberspace*. London, New York: Routledge.
- Durisin, M., McMahon, M. and Faries, B. (2014). JPMorgan Customers React to Hack With a Big Y-A-W-N. Retrieved from:
<http://www.bloomberg.com/news/2014-10-03/jpmorgan-hacks-draws-shrugs-as-clients-numbed-by-breaches.html>
- Finkle, J., Henry, D., Hosenball, M. (2014). FBI, Secret Service investigate reports of cyber attacks on U.S. banks. Retrieved from:
<http://www.reuters.com/article/2014/08/28/us-jpmorgan-cybersecurity-idUSKBN0GR25R20140828>
- Gao, Z. and Ansari, N. (2005). Tracing Cyber Attacks from the Practical Perspective. *IEEE Communications Magazine*, 43(5), 123-131.
- Gartzke, E. (2013). The Myth of Cyberwar: Bringing War in Cyberspace Back Down to Earth. *International Security*, 38 (2), 41-73.
- Glazer, E. (2014). J.P. Morgan's Cyber Attack: How The Bank Responded. [Blog]. Retrieved from:
<http://blogs.wsj.com/moneybeat/2014/10/03/j-p-morgans-cyber-attack-how-the-bank-responded/>
- Goldstein, M., Perloth, N., and Sanger, D.E. (2014). Hackers' Attack Cracked 10 Financial Firms in Major Assault. *The New York Times*. Retrieved from: http://dealbook.nytimes.com/2014/10/03/hackers-attack-cracked-10-banks-in-major-assault/?_php=true&_type=blogs&_r=1
- Gunkel, D.J. (2001). *Hacking Cyberspace*. Boulder, CO: Westview Press.
- . (2007). *Thinking Otherwise: Philosophy, Communication, Technology*. West Lafayette, IN: Purdue University

Press.

- Hartnett, S. J. (2011). Google and the “Twisted Cyber Spy” Affair: US-Chinese Communication in an Age of Globalization. *Quarterly Journal of Speech*, 97(4), 411-434.
- Herzog, S. (2011). Revisiting the Estonian Cyber Attacks: Digital Threats and Multinational Responses. *Journal of Strategic Security*, 4(2), 49-60.
- Huang, Y., Esmalifalak, M., Nguyen, H., Zheng, R., Han, Z., Li, H., and Song, L. (2013). Bad data injection in smart grid: attack and defense mechanisms. *IEEE Communications Magazine*, 51(1), 27-33.
- Kalay, Y. and Marx, J. (2003). Changing the Metaphor: Cyberspace as Place. In *Digital Design – Research and Practice: Proceedings of the 10th International Conference on Computer Aided Architectural Design Futures*, 19 – 28. CAAD Futures. Dordrecht: Kluwer Academic Publishers.
- Kelsey, J. (2008). Hacking into International Humanitarian Law: The Principles of Distinction and Neutrality in the Age of Cyber Warfare. *Michigan Law Review*, 106(7), 1427-1451.
- Kremer, J. (2014). Policing cybercrime or militarizing cybersecurity? Security mindsets and the regulation of threats from cyberspace. *Information & Communications Technology Law*, 23(3), 220-227.
- Kumar, G, and Kumar, K. (2014). Network security – an updated perspective. *Systems Science & Control Engineering: An Open Access Journal*, 2, 325–334.
- Libicki, M.C. (2012). Cyberspace Is Not a Warfighting Domain. *I/S: A Journal of Law and Policy for the Information Society*, 8(2), 321-336.
- Li, X, Liang, X., Lu, R., Shen, X., Lin, X., and Zhu, H. (2012). Securing smart grid: cyber attacks, countermeasures, and challenges. *IEEE Communications Magazine*, 50(8), 38-45.
- Liu, S. and Cheng, B. (2009). Cyberattacks: Why, What, Who, and How. *IT Professional*, 14-21.

Mancino

- Logiurato, B. (2014). REPORT: 'Russians' Behind Huge JPMorgan Cyberattack. *Business Insider*. Retrieved from:
<http://www.businessinsider.com/jpmorgan-cyber-attack-russian-breach-sanctions-2014-10>
- Martin, H. (2014). JPMorgan Chase The Latest Big Target In Cyberattacks. Retrieved from: <http://www.npr.org/2014/10/03/353538159/jpmorgan-chase-the-latest-big-target-in-cyberattacks>
- O'Brien, S. A. (2016). Widespread cyberattack takes down sites worldwide. *CNN Money*. Retrieved from:
<http://money.cnn.com/2016/10/21/technology/ddos-attack-popular-sites/>
- O'Hara, G. (2010). Cyber-Espionage: A Growing Threat to the American Economy. *CommLaw Conspectus*, 19(1), 241-275.
- Plaw, A. and Augé, A. (2012). Introduction: The Transformations of War. *At the Interface: Probing the Boundaries*, 80, ix-xviii.
- Rid, T. (2012). Cyber War Will Not Take Place. *The Journal of Strategic Studies*, 35(1), 5-32.
- Strate, L. (1999). The Varieties of Cyberspace: Problems in Definition and Delimitation. *Western Journal of Communication*, 63(3), 382-412.
- Szoldra, P. (2015). The 9 worst cyberattacks of 2015. *Tech Insider*. Retrieved from:
<http://www.businessinsider.com/cyberattacks-2015-12/#hackers-breached-the-systems-of-the-health-insurer-anthem-inc-exposing-nearly-80-million-personal-records-1>
- The Home Depot. (2014). The Home Depot Reports Findings in Payment Data Breach Investigation. [Press release]. Retrieved from: <https://corporate.homedepot.com/MediaCenter/Documents/Press%20Release.pdf>
- Townsend, M., Rupp, L. Green, J. (2014). Target CEO Ouster Shows New Board Focus on Cyber Attacks. Retrieved from:
<http://www.bloomberg.com/news/2014-05-05/target-ceo->

ouster-shows-new-board-focus-on-cyber-attacks.html

Tzu, Sun. (1910). *The Art of War: The Oldest Military Treatise in the World*. (L. Giles Trans.). Norwalk, CT: The Puppet Press.

Walters, R. (2014). Cyber Attacks on U.S. Companies in 2014. Retrieved from: <http://www.heritage.org/research/reports/2014/10/cyber-attacks-on-us-companies-in-2014>

(2014). Faculty of Architecture and Town Planning, Yehuda Kalay. Retrieved from: http://architecture.technion.ac.il/Yehuda_Kalay.htm

(2014). Home Depot confirms data breach, hit by same malware as Target. Retrieved from: <http://on.rt.com/norbiz>

(2014). John Marx, Professor. Retrieved from: <http://english.ucdavis.edu/people/directory/jmarx>

(2016). IT Professional, About. Retrieved from: <https://www.computer.org/it-professional/about/>

The Pennsylvania Communication Annual, 72.2, 2016

Moving from Nel Noddings' Ethic of Care to a Balanced Ethic of Care

Bayley Paharik
Seton Hill University

This paper examines Nel Noddings Ethic of Care and then talks about how everyone of us need to move beyond her Ethic of Care into a balanced ethic of care while not losing site of what is truly important.

Keywords: Nel Noddings, ethic of care, reciprocity, balanced care, moral education, cynicism, caregivers, hospitals.

Introduction

Nel Noddings (1929-) is a philosopher and Professor Emerita of Education at Stanford University in California (Smith, 2004). Noddings has written seventeen books and more than two hundred articles. In her book, *Caring: A Feminine Approach to Ethics & Moral Education* (1984), she discusses how the ethic of care can ground someone in his or her life. Through a hermeneutic analysis of this work, this paper responds to the question, how can Noddings' ethic of care become more balanced to avoid burnout and cynicism? Recognizing a dialogic turn in communication studies (Arnett, Arneson, & Bell, 2006), this paper explains how Noddings' ethic of care can inform the practice of activism (Camerini & Diviani, 2012) through caring for others, caring for oneself, and morality and education. First, this paper talks about Noddings' ethic of care, discussion then moves into reciprocity in circles and chains of caring, and concludes with the subject of morality in education. The paper posits a rethinking of the ethic of care and how caring of oneself has to exist as well as caring for others and being cared-for. Finally, a personal account is offered to illuminate how care plays a role in caregivers' lives through the act of sending a card. This paper uses qualitative research (Arnett, 2007, pp. 29-30) to argue for a balanced approach toward care, which involves caring about oneself, caring for others, and being cared for by others while not prioritizing one form of caring over another.

Noddings' Ethic of Care

In Noddings' book, *Caring: A Feminine Approach to Ethics & Moral Education* (1984) she mentions how previous discussions of ethics were written from a male perspective. She wants to correct this bias by taking a feminine approach to moral reasoning. Noddings argues that words like justification, fairness, and equality represent a masculine point of view. By contrast, she contends that an emphasis on care and love are more characteristic of a feminine approach. The ethic of care is rooted in countering evil; through caring, someone can respond in a healthier way (Arnett & Arneson, 1999). Through caring for others, individuals can learn how to handle difficult situations without resorting to violence.

Perspectives on Caring for Others

Caring for others is an idea that has been discussed in communication scholarship. Both Buber and Noddings demonstrate a commitment to care for others (Johannesen, 2000). For example, "Noddings grounds her ethic of care in the bedrock assumption that 'relation'—human encounter and response—is a 'basic fact of human existence'" (p. 154). Buber (1958) views the I-Thou relationship as central to dialogic civility. Dialogic civility is when someone engages in a conversation while seeking public change without violence and with concern for the common good (Arnett & Arneson, 1999, p. 302). In fact, Martin Buber states, "the fundamental fact of human existence is 'man with man,' person communicating with person" (Buber cited within Johannesen, 2000, p.153). People find meaning in the world through dialogic engagement with others.

The act of caring or what Noddings refers to as the "one-caring" is concern about the other person, which involves work. For instance, "in an encounter, the [person caring] is attentive; she or he listens, observes, and is receptive to the expressed needs of the cared-for" (Noddings, 2012. p.53). However, it is important to understand why someone cares in the first place. For instance, "caring actions or performances are the result of the workings of a moral imagination that both empathizes and favorably anticipates making a difference" (Hamington, 2010, p. 676). Moral imagination is when a person is able to understand the power car-

Paharik

ing can have on an individual. Caring occurs through meeting someone where that person is. Caring occurs on the terms of the cared-for, not the one caring. Someone cares when empathy is present.

As Noddings states when we care for someone, we are interested in promoting “the welfare, protection or enhancement of the care-for” (Noddings, 1984, p. 23). A person should care without judgment because others may be in very challenging situations, which may not be explicitly known. Conversely, a person may care *about* others, but not know how to care *for* them. Caring *about* involves a state-of-mind toward others; caring *for* is the actual act of caring. In either case, caring needs to be authentic; a false display of caring becomes a technique (Arnett & Arneson, 1999, pp. 40-41). A technique is when someone cares in order to appear to be a good person when he or she truly does not care about the other person. This relates to ethics because ethical caring unlike natural caring is done out of obligation instead of out of love and concern for the other (Kant as cited within Noddings, 1984, p. 80). When people are caring as a technique, they do it because they feel they have to and not out of genuine concern for the other person. Noddings proposes an understanding of an ethic of care, which emphasizes caring *for*, but does not formally articulate how the caring attitude .

In the article, “Beyond Care?” Hedge and Mackenzie (2012) build upon Noddings’ philosophy by arguing that caring as an *attitude* must move to caring as an *action*. Caring may be held as an attitude, yet true caring may not take place. For example, imagine a person caring about a child with an illness. That person may show deep concern inside yet does not send the child cards, the necessary action. The person most likely does care, but it does not appear this way to the outside audience. To address this issue, Hedge and Mackenzie suggest that caring should take place more in the classroom, which helps build relationships. Children can flourish in a safe caring environment; without such a caring environment, children’s development will be stifled. According to Hedge and Mackenzie, Noddings has a different approach. They state, “her ethic of care favours acts done out of ‘love and natural inclination’ with her relational ethic ‘rooted in and dependent on natural caring’” (p. 194), yet in a classroom, students need to be cared for by others with a caring attitude who

will not have a natural caring connection to them.

Providing further critique of Noddings' natural caring, Hoagland (1990) in the article, "Some Concerns about Nel Noddings Caring", mentions her concerns about Noddings' perspective of feminism in terms of mothering. She believes that when children are constantly being cared-for, they are not encouraged to care for others. A part of being a parent is to teach the child how to care for others. Hoagland argues, "non-reciprocity-beyond-acknowledgment undermines the possibility of instilling the value of one-caring in the care-for" (p. 110). Hence, she does not think a male child could be able to care for others when the child is always receiving caring from his mother, the one-caring. This relationship makes the child expect that all females will be the one-caring. Hoagland is concerned that self-identity is not achieved through this one-caring mentality. However, the circles and chains mentality that Noddings (1984) mentions explains the one-caring in action.

Reciprocity in Circles and Chains of Caring

The "chains of caring" are feelings that make us want to care for others (Noddings, 1984, p. 46). These chains are strongest in the circle of people who are closest to us: our immediate families. As our circles of relationships widen to friends, acquaintances, and then strangers, we still feel a commitment to care, but in a different way. In the outer circles, we are moved to care less by our natural feelings and more by a sense of ethical duty. We tell ourselves that we must do something to care for strangers because we see ourselves as moral people, and have experienced natural caring. At the same time, reciprocity needs to occur. Reciprocity is when each party acknowledges and responds to the care being received (Noddings, 2012). Philosopher, Martin Buber, believes that when reciprocity takes place, the I and Thou relationship are in balance (Noddings, 1984, p. 74). When this engagement occurs, caring takes on a dimension of concern for another person instead of doing solely what is best for that particular person. When people care for someone, they are interested in promoting "the welfare, protection or enhancement of the care-for" (Noddings, 1984, p. 23). Noddings views reciprocity not as a social-exchange, but as empathy toward the cared-for, the ability to consider the other's point of view. Empathy refers to under-

Paharik

standing towards a person that sometimes occurs after a similar experience. Thus, caring does not follow any kind of social-exchange formula. Instead, it is guided by the concern for the cared-for. As Noddings' states, "to care is to act not by fixed rule, but by affection and regard" (Noddings, 1984, p. 24). Caring must be sincere and not simply a formula to follow. As a result, people will care for themselves as well. To foster caring in our society, our education system can teach caring for others. Noddings and others argue that morality and education should coexist.

Morality and Education

In the article, "Caring and Agency: Noddings on happiness in education", Alexander (2013), discusses Noddings' book, *Happiness and Education*. In the book, Noddings explains how education and happiness often are at odds—they do not exist together. However, education and happiness should be a part of education, but as Alexander (2013) states, it does not mean that schools should promote "mere pleasure" (pp. 488-489). Instead, "they [schools] should promote something closer to what Aristotle called 'eudaimonia' or flourishing" (p. 489). Flourishing happens through moral and intellectual virtues being imbedded into schools' curricula. Noddings argues that morality and education should exist together—not at odds with each other (Johnston, 2008). Noddings views caring and morality as important fundamentals to successful education especially in terms of character development.

In Noddings' article, "The Language of Care Ethics" (2012), she explains how character education can be used in terms of a caring approach. A teacher, like a mother, would encourage her students to care about another person by caring about the student as a human being. Through teaching compassion, students will be able to listen to others more effectively and be more understanding of those going through difficult times. Researcher, Semetsky (2010), goes into detail on why morality and education are so important. In her article, "The Folds of Experience, or: Constructing the Pedagogy of Values," she discusses how morality and education helps to develop values. According to Semetsky, "the development and sustenance of the collective spirit of a democratic group is what education should aim for, with far-

reaching implications for schools to become a mode of social life, the latter in turn to provide the necessary background of children's attainments" (p. 476). Teachers need to take steps to encourage their students to develop character through their education. Education is far more than simply learning—it is the backbone of a student's identity and purpose.

Bergman's (2004) article, "Caring for the Ethical Ideal: Nel Noddings on Moral Education," examines moral education through the perspective of Noddings. Noddings lists four ways to think about moral education: modeling, dialogue, practice, and confirmation. All four require reciprocity—an understanding of oneself. Bergman explains, "although all our selves are under continuing construction, a teacher may experience a satisfying completion when he sees his caring received with care, when he [or she] sees a student growing in care for others and [his or] her own ethical ideals" (p. 156). The goal of education for the one-caring is to increase caring in others.

Noddings proposes that schools should be guided by an ethic of care in order to develop caring people. According to her, caring and knowledge are not incompatible, and neither is happiness. Rather, knowledge and happiness are achieved through a caring approach to education. Learning takes place through a relationship between student and teacher. For example, "the teacher provides a model. To support her students as ones-caring, she must show herself as one caring. She is not content to enforce rules, but she continually refers the rules to their ground in caring" (Noddings, 1984, p. 178). Noddings posits that "All students should be involved in caring apprenticeships, and these tasks should have equal status with other learning activities" (1984, p. 188). Yet, there are other ways to think about an ethic of care without simply accepting Noddings' view of everyone either being the cared-for or the one-caring.

Rethinking an Ethic of Care

There is a tendency to care too much or too little sometimes. Noddings focuses so much on caring for others that sometimes self-caring gets ignored or pushed aside. While there is not a right or wrong approach, it is important for people to realize how they prioritize caring. Prioritizing caring involves caring for one-

Paharik

self, others, and being cared for all at the same time; a balanced ethic of care. An example of prioritizing caring is when a mom devotes time into helping with their child's soccer team. The mom goes out of her way to make sure the soccer team is fed and happy. However, the mom spends all day devoted to the soccer team that she forgets to make her family dinner. Helping the soccer team might be very important. However, the soccer team will most likely always be there. Children will not always live at home. The mom may think she is doing a great job by caring, yet years down the road, the child might resent her mom for ignoring the family. While this action is unintentional, it is important to understand why no end to caring can cause serious repercussions. But what is the problem if someone cares too much? Scholar, Shea Robison, explains why.

No End to Caring?

Shea Robison explains in her article, "No End to Caring?" (2014) how caring has changed over the years. She references researcher Mark Walker's project of observing how individuals are influenced through human behavior. In a similar way, Robison believes caring is more so a biological and social mechanism rather than simply a rational response (Robison, 2014, p. 2). In order to survive socially, individuals must adopt the model of caring. Robison thinks that too much caring can be problematic. The attitude of always caring can lead to problems such as not being willing to be cared-for. Additionally, too much caring can lead toward cynicism.

Cynicism reflects a negative attitude through becoming engrossed in focusing on oneself. The reason cynicism exists is not because someone wants to have a selfish attitude. On the contrary, cynicism results in caring too much about something or someone. This attitude of too much caring can cause someone to forget the important things in life and cause someone to become obsessed on what is only best for that individual. The common good cares what is good for everyone (Arnett & Arneson, pp. 13-14, 1999). While care is good, there needs to be an examination of the dangers of cynicism, so people can be mindful of how care can bring forth positive and negative effects. Hence, there needs to be a balanced approach to caring – not caring too much or too little about something, which needs to be decided by each indi-

vidual through prioritizing their care. For example, a person might care deeply about sports, but if sports take away from family time, the person has to determine how to prioritize the caring. Futhermore, there also needs to be care of oneself instead of just the one-caring and the cared-for.

Noddings wants people to automatically care, but their caring may prevent the one-cared-for from having opportunities to care for others. Consequently, failure to care for others can result in a difficulty to understand oneself. Someone who never gets opportunities to care for others might believe he or she is useless. The person is not useless, but without doing something productive, the attitude of feeling useless may emerge. The same is true with someone always caring for others. Caregivers might not accept others caring for them, as they are always the one caring. For example, someone might offer to help a caregiver clean his or her house. However, the caregivers might say no by not being accustomed to receiving care. At the same time, self-caring needs to take place as well because without caring for oneself, burnout and self-destruction may emerge. Burnout reflects caring about others constantly without leaving time to care for oneself. Self-destruction refers to feeling guilty about caring for oneself with feelings of being selfish.

Balanced Caring

While Noddings focuses on education for her philosophy of care, teaching a balanced caring approach in hospitals may make a positive impact on the lives of care-givers, patients, and their families. People who are constantly being cared for need opportunities to care for others. For example, a child with a serious disease will receive significant care from others; however, offering children opportunities to care for another, such as walking a service dog, may assist their well-being through the joy of caring. Caring for another may also distract from their current situation. Conversely, those who are in positions of caring for others on a regular basis need opportunities to be cared for. For example, a card sent to a caregiver who lost a patient provides an opening for being cared for. Noddings, however, believes caring for others should take precedence over caring for one-self. Noddings does not focus on people caring for themselves; she positions people as either the one-caring or the cared-for. Alternatively,

Paharik

this paper argues for a balanced approach. Someone must be able to care for someone else while being cared-for at the same time. This is not always easy, as it is difficult to accept being cared-for when that person is always being the one-caring. Also, while it is important to care for others, there also needs to be caring for oneself. Moreover, caring for others is challenging when people do not first care for themselves.

Noddings describes care in terms of the “one-caring” and the “cared-for.” The person who is being cared for is affected by the attitudes of the caring person, and vice versa. For instance, “the one cared-for sees the concern, delight, or interest in the eyes of the one-caring and feels her warmth in both verbal and body language” (Noddings, 1984, p. 19). According to Noddings, joy “accompanies our recognition of relatedness and reflects our basic reality” (p. 147). Joy contributes to our ability to care for others and to be cared-for. For this reason, it enhances the ethical ideal. Anyone who has served someone else has most likely experienced happiness or joy from doing that act. Therefore, Noddings equates caring with joy. Yet, her idea of circles and chains of care must exist in both directions.

There will be more circles and chains of reciprocity if those who are cared-for all the time become care-givers, and those who are care-givers all the time will get a break from caring thereby strengthening the circles and chains. For example, people who work in a hospital all day caring for others get burned out, as they are always the caregivers. While they love their jobs, caring for others all the time gets exhausting. The same is true for people who are always being cared-for. Everyone is taking care of them and they often question their importance, as they are not given opportunities to care for others. Caring for others helps them feel they have their identity back and experience the joy that arises from caring. For example, if they had the opportunity to help children with their illness, rather than just being the recipient of care, they would feel they have value again.

People also need to engage in self-care. It is very challenging for someone to continue to care for another without caring for oneself. Usually when people are caregivers, they become so engrossed in helping others that they forget about themselves. However, people not do a successful job being caregivers when they

are not feeling their best. Noddings does not focus on people caring for themselves; she positions people as either the one-caring or the cared-for. Someone must be able to care for someone else while being cared-for at the same time. This balanced approach to caring is illustrated in a hospital ministry case study.

A Personal Understanding of Caring: Understanding Caring Through Hospital Ministry

Hospital employees often engage in the one-caring, but there is also an opportunity for being cared for as well. The purpose of hospitals is to care for others, but without being cared for, the health of hospital employees is at risk. Caring for others all the time can be a very rewarding experience and is most likely the reason people choose to go into the health care field. However, being the one-caring constantly can lead to a lot of stress and discouragement where feelings arise that others do not also care about them. People can care for these employees by sending letters to hospitals thanking them for their care as well as donating supplies to the hospital, so the hospital can help more patients. When hospitals feel others care, they are more willing to show care back. Haegert (2004) explains how nurses benefit from the ethic of care. Haegert takes on the position of nurses caring for patients. She explains how various people have different ways of explaining caring, which is not limited to Noddings' (1984) belief that caring has a special meaning and identity for women. I was able to understand the ethic of care from a variety of people through my extensive experience visiting children's hospitals.

Through visiting children's hospitals through my ministry work (Hope Alive Ministry that is in the process of becoming a non-profit organization) of supporting families facing life-threatening and chronic illnesses, I was able to gain a deeper respect for the care hospitals provide everyday through their nurses, doctors, child life specialists, and others. I witnessed how one chaplain who I had the opportunity to speak with at a hospital had tears in her eyes when talking about the families she ministers to. The courage of these families is remarkable and they are true examples of caring people and are recipients of caring as well. However, caregivers do not always experience being cared for. In the next section, I discuss what I have learned through my experience with touring the hospitals and meeting with the staff there.

Paharik

I have visited several children hospitals and Ronald McDonald Houses over a period of two years. I saw how parents with a child with a life-threatening and chronic illness often sacrificed everything for their family. One parent often had to stay at home with their other children while the other stayed with their sick child at the hospital. Sometimes families were cities or even states apart for months on end. The parent left behind spent all day at their child's bedside waiting for news; praying that the news was good. The other parent visited their child as much as possible with the added stress of making sure their family was taken care of financially. This is just one example of a family being the one-caring. However, they were also cared for. Child life specialists, nurses, doctors, patient-family advocates, social workers, and more all cared deeply for the family and their child making their stressful experience as stress free as possible. People who knew of the family through Facebook might have sent them cards. This is not always true for the caregivers, though. Caregivers grieve when patients die yet often do not have time to properly grieve. For example, a surgeon often has to go straight into the operating room immediately after hearing of another child passing away. The surgeon breaking down can lead to another patient losing his or her life. At the same time, grieving is necessary especially because the doctors, nurses, and caregivers often become close to the children they treat. It is important to remember that caregivers are people too and need to know that they are appreciated and we care that they are grieving. One of the ways to show care to caregivers is by sending cards saying that people care and are thinking about them. Just like a card can brighten a sick child's day, it can bring a smile to a caregiver's face as well.

Balanced caring is dialogic. Meiers and Brauer (2008) discuss in their article, "Existential Caring in the Family Health Experience: A Proposed Conceptualization", how their experience with nursing called for "existential dialogue." Care has a different meaning depending on the group of people affected. For example, a religious perspective of dialogue is "caring in the shared world is ordained as a way of demonstrating reverence for the creator" (Meiers & Brauer, 2008, p. 111). According to this belief, care for another is in obedience to God, the Creator. In the article "Communication Ethics: The Dialogic Turn" Arnett, Arneson, and Bell (2006), consider how important dialogue is in everyday

conversation. According to the authors, “dialogue is understood as the communicative exchange of embedded agents standing their own ground while being open to the other’s standpoint, conceptualizing meaning that emerges in discourse situated between persons while engaging a common text in their communicative event” (p. 79). The dialogic turn refers to the moment when insight and engagement is a part of conversations. This moment of dialogic turn is the spark of a movement grounded in an ethical understanding of communication, and balanced caring.

Conclusion

By caring for others, we care for ourselves, but care does not exist simply as a way to better oneself; it exists to better the common good. Noddings’ goals were to invite others into the caring mentality and change education from learning into moral education. While this paper talked deeply about a balanced approach to caring: caring for others, oneself, and being cared-for all at the same time, there are exceptions to this rule. Sometimes, patients who are very sick only experience being cared-for as they are unable to care for themselves or others due to their health situation. However, when possible, all three forms of caring should take place because it uplifts the health of everyone involved. Caring for others is deeply realized through the one-caring. However, an ethic of care also involves circles and chains in both directions of reciprocity and self-caring.

References

- Alexander, H. (2013). Caring and Agency: Noddings on happiness in education. *Educational Philosophy & Theory*, 45 (5), 488-493.
- Arnett, R., & Arneson, P. (1999). *Dialogic civility in a cynical age community, hope, and interpersonal relationships*. Albany, N.Y.: State University of New York Press.
- Arnett, R., Arneson, P., & Bell, L. (2006). Communication ethics: The dialogic turn. *Review of communication*, 6(1/2), 62-92.
- Arnett, R. C. (2007). Interpretive inquiry as qualitative communication research. *Qualitative Research Reports in Commu-*

Paharik

nication, 8(1), 29-35.

Bergman, R. (2004). Caring for the ethical ideal: Nel Noddings on moral education. *Journal of Moral Education*, 33(2), 149-162.

Buber, M. (1958). *I and thou*. New York, NY: Scribner.

Camerini, L. & Diviani, N. (2012). Activism, health and the Net: Are new media shaping our perception of uncertainty?. *Interactions: Studies in Communication & Culture*, 3(3), 335-343.

Haegert, S. (2004). The ethics of self. *Nursing Ethics*, 11(5), 434-443.

Hamington, M. (2010) The will to care: Performance, expectation, and imagination. *Hypatia* [serial online]. Summer; 25(3):675-695.

Hedge, N. & Mackenzie, A. (2012). Beyond care?. *Journal Of Philosophy Of Education*, 46(2), 192-206.

Hoagland, S. (1990). Some concerns about Nel Noddings' caring. *Hypatia*, 5(1), 109.

Johannesen, R. (2000). Nel Noddings's uses of Martin Buber's philosophy of dialogue. *Southern Communication Journal*, 65(2/3), 151.

Johnston, J. (2008). Does a sentiment-based ethics of caring improve upon a principles-based

one? The problem of impartial morality. *Educational Philosophy & Theory*, 40(3), 436-452.

Meiers, S. J., & Brauer, D. J. (2008). Existential caring in the family health experience: a

proposed conceptualization. *Scandinavian Journal Of Caring Sciences*, 22(1), 110-117.

Noddings, N. (1984). *Caring: A feminine approach to ethics & moral education*. Berkeley:

University of California Press.

Noddings, N. (2012). The language of care ethics. *Knowledge Quest*, 40(5), 52-56

- Robison, S. (2014). No end to caring?. *Politics & The Life Sciences*, 33(1), 2-32.
- Semetsky, I. (2010). The folds of experience, or: Constructing the pedagogy of values. *Educational Philosophy & Theory*, 42(4), 476-488.
- Smith, M. (2004). Nel Noddings, the ethics of care and education. *The encyclopaedia of informal education*. Retrieved from <http://infed.org/mobi/nel-noddings-the-ethics-of-care-and-education/>
- Stephenson-Abetz, J. (2012). Everyday activism as a dialogic practice: Narratives of feminist daughters. *Women's Studies in Communication*, 35(1), 96-117.

ISSN 2372-6350