

ת ו ח פ ש מ

It's family time!

סוגיות טיפוליות, תהליכים ואופקים במסגרת המשפחתית



ברוכים הבאים לכנס התשיעי של ארגון DIR ישראל

ימים רביעי-חמישי 24-25 בינואר 2018

16:30-08:00

המרכז הלאומי שלווה, ירושלים

על הכנס

הטיפול על פי מודל ה־DIR (The Developmental, Individual differences, Relationship based model) מערב את בני המשפחה הגרעינית והמורחבת בטיפול בילד עם צרכים מיוחדים. הכנס יעסוק במרקם המשפחתי המתהווה סביב טיפול, בחיבורים בין בני משפחה שונים, בהצלחות, ברגשות ובתהליכים המתרחשים בתוך העשייה הטיפולית. נתעמק בתהליכים המתרחשים בתוך המשפחה, מזוויות מבט שונות: נשמע ממקור ראשון על תהליכים בתוך המשפחה, וכמו כן ינתנו הרצאות מתחומי המחקר והטיפול.

מודל ה־DIR

מודל ה־DIR אשר פותח על ידי ד"ר שרינה וידר וד"ר סטנלי גרינשפן ז"ל, הינו מודל להערכה וטיפול בילדים עם צרכים מיוחדים ובמשפחותיהם.

במרכז החשיבה והעשייה הטיפולית עפ"י המודל נמצאת התפיסה כי האינטראקציה בין הילד, משפחתו ומטפליו, היא המצע המאפשר ומניע את ההתפתחות על כל מרכיביה. יכולותיו התפקודיות והרגשיות של הילד ומיקומו בסולם ההתפתחותי, אפיוניו הפיזיולוגיים ודרכו הייחודית לעיבוד מידע, מהווים גם הם רכיבים מהותיים נוספים המייחדים את ההתבוננות והעשייה הטיפולית של המודל.

יותר ויותר מחקרים עדכניים, מעידים על מרכיבי הקשר: התקשורת, המשחקיות, ההנאה, ההתאמה וההתכוונות אל מאפייניו היחודיים של כל ילד, כמרכיבים מרכזיים בדרך אל מימוש הפוטנציאל הטמון בו. העבודה בצוותים רב מקצועיים תחת המודל, מקדמת את המטפלים והמשפחות לחשיבה משותפת, מעמיקה וחדשנית, המופרית וניזונה מהקשר בין אנשי המקצועות השונים, ומהקשר עם ההורים.

ארגון DIR ישראל

ארגון DIR ישראל הוא ארגון התנדבותי שהוקם על ידי מטפלים העובדים על פי המודל במטרה לבסס ולקדם את לימוד המודל והטמעתו עבור משפחות ואנשי טיפול וחינוך ברחבי הארץ. בשנת 2004 במהלך ביקור בארץ, יזמה ד"ר וידר את הקמת הארגון והיא ממשיכה איתנו מאז ועד היום. בשנת 2015 הצטרף הארגון לעמותה לילדים בסיכון, אשר נתנה לו גג, והוא פועל כארגון עצמאי תחת חסות העמותה.

משפחה יקרים הוכיח האים

אנו שמחים לארח אתכם ביומיים הקרובים בכנס התשיעי של ארגון DIR ישראל. השנה בחרנו לעסוק במארג המשפחתי של משפחות עם ילדים עם צרכים מיוחדים וקראנו לכנס משפחות - Its Family Time!! - זהו זמן משפחה על בסיס שמה של טכניקת הטיפול - Floortime.

Floortime - זמן רצפה או זמן יחד הינה טכניקת טיפול ייחודית למודל ה-DIR, אשר מותאמת לילד ולצרכיו ההתפתחותיים והרגשיים, ולאלה הסנסוריים והמוטוריים, אשר במהלכה נעשה שימוש במרכיב שהוא מרכיב הקסמים הסודי של המודל, או שיקוי הפלא שלו - "האפקט". הוא הריגוש וחווית הרגש אשר נותן משמעות למעשינו ומאפשר לנו להבין את האחר ואת העולם.

מודל ה-DIR, הינו מודל להערכה וטיפול בילדים עם צרכים מיוחדים ומשפחותיהם ולב העשייה עלפי המודל היא הוריו ומשפחתו של הילד עם הצרכים המיוחדים. המודל פותח על ידי ד"ר שרינה וידר וד"ר סטנלי גרינשפן בארה"ב בשנות ה-80. במרכז החשיבה והעשייה הטיפולית עפ"י המודל נמצאת התפיסה כי הקשר שבין הילד ומשפחתו הוא המצע המאפשר ומניע ההתפתחות על כל מרכיביה; ההתכוונות של ההורה לילד מהווה מרכיב משמעותי אשר משפיע ומקדם התפתחות. מודל ה-DIR היה מן המודלים הראשונים שהדגיש את ההסתכלות על ילד במשפחתו ומחוצה לה כמקום להתערבות ועל הקשרים בה כמרכיב מרכזי בחשיבה הטיפולית כבר בתחילת דרכו. בטיפול על פי מודל ה-DIR ישנן שלוש טכניקות טיפוליות שונות אשר מהוות חלק מהיומיום של הילד - פלור טיים, עבודה סנסומוטורית ועבודה חצי מובנית. מרכזיות הקשר והאינטראקציה חלים על כל אחת מן הטכניקות הטיפוליות הללו.

בימי הכנס נתכבד ונלמד מפי הורים ומבני משפחה המתמודדים עם ילדים עם צרכים מיוחדים, מפיה של ד"ר שרינה וידר הוגת מודל ה-DIR והאמא המקצועית של כולנו, ומטובי החוקרים והמטפלים אשר מובילים את העשייה הטיפולית בארץ. יחדיו נצלול בהרצאות ובסדנאות אל תוך החוויה הרגשית והיומיומית של משפחות - נעמיק בהבנת חשיבות הקשר בין הילד להוריו, בין הילד למשפחתו ובנינו המטפלים - למשפחה. נתבונן על הגורמים אשר משפיעים על הקשרים - מסייעים כמו גם מאתגרים אותם, על השפעה של הקשר על התפתחות הילד, על התפתחות ההורים וגם על התפתחותנו שלנו כמטפלים בתוך התווך הזה.

ארגון DIR ישראל קיים מאז שנת 2004 והוא שם לנגד עיניו את קידום וביסוס מודל ה־DIR ככלי טיפולי ואבחוני עבור ילדים בעלי אתגרים התפתחותיים ומשפחותיהם. הארגון מכשיר מטפלים ומקיים קורסים להורים ומטפלים ללימודו.

הצוות המוביל את הארגון הוא צוות מתנדב אשר מקדם את המודל, מייצג אותו במגוון מקומות ומייצר חיבורים עבור מטפלים הורים וילדים. אני רוצה לנצל הזדמנות זו להודות לכל מי שבלעדיו האירוע הזה ועוד רבים אחרים לא היו מתקיימים. לענבל היימן מרכזת צוות כנסים שעמלה רבות על התינוק הזה ובזכותה הוא הפך להיות, לרחל פרידנשטיין שסייעה לה בדרך וליתר צוות הכנס – יאנה פלג, דקלה גול בורשטיין ואיילת וישניצר שדאגו לפרטים הקטנים, למיה קסטנבאום האחראית על צוות האתר ועל הפייסבוק שעם צוות כנסים עבדו קשה על פרסום הכנס הזה, לחן כרמי שתמכה, לאתי היקרה שלנו שניצחה על כל ההרשמה והגרפיקה שרובכם כבר מכירים... ולכל יתר הצוות שעושה עבודה התנדבותית במהלך כל השנה, כותב את החזון של הארגון הזה ומניע את הוצאתו לפועל.

כולי תקווה שתיהנו מהיומיים הקרובים ושכולנו נלמד מפי הדוברים שהגיעו. אנחנו ממשיכים את דרכנו ומקווים לראותכם עוד במהלכה.

יעל כרוק ביניא
 מנהלג הארגון

יום רביעי 24.1.2018

	קבלת פנים ורישום	09:00-08:00
	דברי פתיחה יעל ברוק-ביניא , מרפאה בעיסוק, מנהלת ארגון DIR ציפי נגל-אדלשטיין , עו"ד, מנכ"לית העמותה לילדים בסיכון ד"ר שרינה וידר , פסיכולוגית קלינית, הוגת מודל ה־DIR	09:10-09:00
	סיפור קצר על התמודדות יורם עבר הדני , אבא לילד עם אוטיזם, במאי פרסומות וסופר	09:35-09:10
	מודל ה־DIR כחלוץ התיווך ההורי בטיפול בילדים בספקטרום האוטיסטי אנטגרציה בין "בריאות הנפש של הפעוט" ומגמות חדשניות בהתפתחות הילד	10:30-09:35
DIR: The Pioneer of Parent Mediated Intervention (PMI)		
for Autism Spectrum Disorders: New Trends in Developmental Science		
	ד"ר שרינה וידר , פסיכולוגית קלינית, הוגת מודל ה־DIR, מייסדת ומנהלת מקצועית של ארגון PROPECTUM	
	סיפור קצר על התמודדות חברת הכנסת סתיו שפיר , להיות אחות	10:45-10:30
	הפסקה	11:15-10:45
	מנטליזציה הורית גופנית: הריקוד הגופני בין הורים ותינוקות ד"ר דנה שי , בית הספר למדעי ההתנהגות, המכללה האקדמית תל אביב יפו	12:15-11:15
	אח שלי - ילד לא רגיל, קבוצת אחים לילדים עם אוטיזם בתפקוד בינוני נמוך ד"ר נורית פלזנטל-ברגר , פסיכולוגית התפתחותית וחינוכית, המכללה האקדמית אונו, שפ"ח ירושלים	13:15-12:15
	הפסקת צהריים	14:15-13:15
	שיתופיות משפחתית באינטראקציות אם-אב-ילד: המקרה המיוחד של ילדים צעירים עם אוטיזם פרופ' דוד אופנהיים , החוג לפסיכולוגיה והמרכז לחקר התפתחות הילד, אוניברסיטת חיפה	15:15-14:15
	הפסקה	15:30-15:15
	מפגשים: פרופילים שונים בתוך משפחות - התאמה וקושי מרב קאסוטופסקרה , מרפאה בעיסוק, מטפלת DIR מוסמכת	16:15-15:30
	סיכום היום	16:30-16:15

יום חמישי 25.1.2018

קבלת פנים ורישום	09:00-08:00
פתיחה	09:30-09:00
התאמת הסביבה הביתית לילד עם צרכים סנסוריים מיוחדים	
קרן שטרן-אלרן , יועצת הנדסת אנוש, M.Sc. בעיצוב תעשייתי מהטכניון. מאובחנת עם לקות בוויסות חושי. מייעצת למשפחות כיצד להתאים את חדר הילדים לצרכים החושיים והקשביים של הילד.	
כמו לוליין על חוט – פרדוקסים מובנים בחוויה ההורית לילדים עם אוטיזם	10:30-09:30
נועה גינוסר , פסיכולוגית קלינית, פסיכולוגית אחראית תחום גנים ומרכזי טיפול, אל"ט	
הפסקה ופיזור למושבים מקבילים	10:30-11:00
מושבים מקבילים (יערכו ארבעה מושבים מקבילים פירוט בהמשך עמוד זה)	12:30-11:00
הפסקת צהריים	13:15-12:30
מושבים מקבילים (יערכו ארבעה מושבים מקבילים פירוט בהמשך עמוד זה)	14:45-13:15
הפסקה	15:15-14:45
מה מסתתר מאחורי התנהגות חזרתית, חלון לתוך עולמם של הילד וההורה	16:15-15:15
ד"ר יאנה פלג פסיכולוגית, מטפלת DIR מוסמכת ויעל ברוק-ביניא , מרפאה בעיסוק, מטפלת DIR מוסמכת, מנהלת ארגון DIR ישראל	
סיכום	16:30-16:15

מושבים מקבילים – יום חמישי 25.1.2018

מושב בוקר 12:30-11:00

DIR בתוך ומחוץ לקופסה ♦

תמיכה בקשר הורה-ילד בחדר הטיפולים, בבית ובקהילה
ד"ר עליזה ויג, פסיכולוגית קלינית **וענת אופנהיים**, מרפאה בעיסוק, מטפלות DIR מוסמכות.

הכניסיני תחת כנפך – אם ואחות, סיפור דרך ♦

על החיים כאחות וכאם לילד בספקטרום, על המפגש בין המטפלת למשפחה. תובנות מתוך הדרך המשותפת בטיפול על פי מודל ה-DIR.

שירית עברי עבדי, אמא, אחות וסטודנטית לחינוך מיוחד **וענבל הימן**, מרפאה בעיסוק, מטפלת DIR מוסמכת

◆ שיח עם הורים

ד"ר שרינה ווידר, הוגת המודל, מזמינה הורים לשיח פתוח בעברית השיח מיועד להורים בלבד, זוהי הזדמנות לשאול את ד"ר שרינה ווידר ולדון איתה בסוגיות המלוות גידולו של ילד עם צרכים מיוחדים.

◆ סדנת היכרות לקידוד מנטליזציה הורית גופנית

ד"ר דנה שי, בית הספר למדעי ההתנהגות, המכללה האקדמית תל אביב יפו

מושבי צהריים 13:15-14:45

◆ לצאת מן הארון אל העולם, או להכניס עולם שלם לתוך ארון.

התמודדות אישית ומשפחתית עם חשיפה והסתרה של האוטיזם.
רינת בראון, אמא לתאומים עם אוטיזם. עובדת סוציאלית ומטפלת משפחתית זוגית מוסמכת.

◆ Not Easy to be Izzy

הצפה - רגיעה ומה שבניהם: האתגרים התקשורתיים של איזי עם הוריו ואחיו המיוחד - תיאור מקרה
יעל סנדרו, מרפאה בעיסוק, מטפלת DIR

◆ מהקליניקה אל המציאות הביתית

Floor time עם האח בבית - תיאור מקרה
רותי ויצמן, קלינאית תקשורת, מטפלת DIR מוסמכת

◆ אי שם מעבר לקשת

מסע התמודדות של הורים לילדים המאובחנים על הספקטרום האוטיסטי
רוני מרץ, פסיכולוגית חינוכית ואמא של ניב



תקצירי ההרצאות במליאה

יום רביעי 24.1.2018

DIR: The Pioneer of Parent Mediated Intervention (PMI) for Autism Spectrum Disorders: New Trends in Developmental Science

Dr. Serena Wieder, PhD – Clinical Psychologist
Clinical Director and a founding member of the Profectum Foundation

From the start the DIR Model (Developmental, Individual Difference, Relationship based) considered relationships the vehicle of emotional developmental processes incorporating infant mental health principles and individual differences into a multidimensional and comprehensive model for all children, including ASD. Today there is a shift away from behavioral reductionism to a relational developmental perspective in dynamic change patterns over time where different aspects of development influence each other. Also, current neuroscience is transforming early identification to as early as six months in high risk infant siblings of children with autism with compelling implications for the importance of relational capacities to advance development. This presentation will focus on how targeted parent-child interventions attuned to both children and parents promote emotional and relational capacities and reduce ASD symptoms and challenges with anxiety.

מודל ה־DIR כחלוץ התיווך ההורי בטיפול בילדים בספקטרום האוטיסטי: אנטגרציה בין "בריאות הנפש של הפעוט" ומגמות חדשניות בהתפתחות הילד

ד"ר שרינה ווידר, פסיכולוגית קלינית, הוגת מודל ה־DIR מייסדת ומנהלת מקצועית של ארגון Profactum

כבר מראשית דרכו הכיר מודל ה־DIR (Developmental Individual differences Relationship based) בתרומתו של מערכות היחסים כמניע המרכזי בתהליכי ההתפתחות הרגשית. המודל משלב עקרונות מבריאות הנפש של הגיל הרך, וכן את מרכיבי ה"הבדלים אינדיבידואלים" ומציע טיפול מקיף ורבי־מימדי עבור ילדים בכלל, כמו גם עבור אלו המאובחנים עם ASD. כיום, יש תנועה מהפחתת ההסתכלות על התנהגויות אל עבר התבוננות על התפתחות ויחסים כעל דפוסים דינמיים המשתנים לאורך זמן, כאשר מרכיבי התפתחות שונים, משפיעים אלו על אלו. בנוסף, חקר מדעי המוח כיום, עובר לאיתור מוקדם, כבר מגיל שישה חודשים בתינוקות עם סיכון גבוה שהם אחאים לילדים עם אוטיזם, עם תוצאות משכנעות בנוגע לחשיבותן של מיומנויות, הקשורות ליכולת להיות בקשר, לצורך קידום התפתחות. ההרצאה תתמקד באופן שבו תכניות התערבות הממוקדות ביחסי הורה-ילד ואשר מכווננות הן להורה והן לילד, מקדמות את היכולת הרגשית ואת היכולת של הילד להיות בקשר. אותן תכניות מפחיתות את הסימפטומים של האוטיזם ואת האתגרים הנלווים לחרדה.



ד"ר שרינה ווידר – הינה המנהלת הקלינית של ארגון Profactum ואחת ממקימי ה־ICDL. כיום היא מנהלת קליניקה פרטית בניו יורק לאבחון, טיפול וייעוץ לפעוטות, ילדים נוער ומבוגרים עם לקויות התפתחותיות מורכבות וקשיים בתחום בריאות הנפש. ד"ר ווידר מנהלת תכניות הדרכה בינלאומיות להכשרה לעבודה על פי מודל ה־DIR, כמו כן, היא משמשת כיועצת במגוון תכניות ומרכזים בנושא התפתחות הילד ברחבי ארצות הברית. המחקר של ד"ר ווידר מתמקד באבחון וסיווג ילדים עם קשיים התפתחותיים וכן מחקרי אורך על ילדים שטופלו על פי מודל ה־DIR. פרסומיה מתייחסים למודל, לסוגיות באבחון וסיווג, להתפתחות רגשית וסימבולית וכן להדרכה. ד"ר ווידר כתבה מספר ספרים בשיתוף עם ד"ר סטנלי גרינשפן ז"ל (ילדים עם צרכים מיוחדים, טיפול באוטיזם) ועם ד"ר הארי ווקס (שערים חזותיים - מרחביים לחשיבה).

מנטליזציה הורית גופנית: הריקוד הגופני בין הורים ותינוקות

ד"ר דנה שי, בית הספר למדעי ההתנהגות, המכללה האקדמית תל אביב יפו

מנטליזציה הורית הינו מושג שזכה לתשומת לב ניכרת בעולם המחקרי והטיפולוי חזוה כיכולת חשובה המשפיעה על איכות הטיפול ההורי והתפתחות הילד. עד כה, מנטליזציה הורית הומשגה כיכולת שמתבטאת בייצוגים מילוליים סמנטיים של עולמו הפנימי של הילד, של ההורה ושל מערכת היחסים בין ההורה והילד. בהרצאה זו תוצג העמדה הקוראת להתייחס למנטליזציה הורית גם ברמת האינטראקציה, כאשר התנועות של כל הגוף – של ההורה ושל הילד – מבטאת את עולמם הפנימי של ההורה ושל הילד. באופן ספציפי, נטען כי מנטליזציה הורית יכולה להתבטא ולהימדד גם על פי המידה בה ההורה מתאים את התנועות שלו למצבים הנפשיים של הילד, כפי שאלה מתבטאים בתנועות של הילד. בהרצאה יוצגו ממצאים ממחקרים שונים אשר מדגימים כיצד מנטליזציה הורית גופנית קשורה ליכולות הוריות אחרות ולמנטליזציה הורית מילולית, וכיצד ילדים מתפתחים רגשית, חברתית וקוגניטיבית באופן שונה כתלות באיכות המנטליזציה הגופנית של הוריהם. את ההרצאה ילוו קטעי סרטים של אינטראקציות הורה-תינוק על מנת להמחיש כיצד נראית, הלכה למעשה, מנטליזציה הורית גופנית וכיצד ניתן לעבוד איתה בחדר הטיפולים.



ד"ר דנה שי, הינה חוקרת פסיכולוגיה התפתחותית, בעלת דוקטורט בפסיכולוגיה קלינית-התפתחותית מאוניברסיטת לונדון. חברת סגל בבית הספר למדעי ההתנהגות במכללה האקדמית תל אביב יפו ומובילה שם את המעבדה ההתפתחותית החדשנית. חוקרת התפתחות רגשית מוקדמת, מנטליזציה הורית מילולית וגופנית, הורות ויחסי משפחה. בעלת רקע בפסיכולוגיה התפתחותית פסיכואנליטית, טיפול בתנועה, מחול ופילוסופיה.

אח שלי ילד לא רגיל – קבוצת אחים לילדים עם אוטיזם בתפקוד בינוני נמוך

ד"ר נורית פלזנטל-ברגר, פסיכולוגית התפתחותית וחינוכית,
המכללה האקדמית אונו, שפ"ח ירושלים

הקבוצה הונחתה בשותפות עם:
טל גרין אפל מנהלת תחנת פת שפ"ח ירושלים
חגית רוזנהיים מנהלת בית ספר "מגשימים" ירושלים

ההרצאה תעסוק בתיאור של קבוצת אחים יחודית שהתקיימה לאורך שנתיים וחצי בבית ספר "מגשימים" בירושלים. אוכלוסיית בית הספר כוללת נערים ונערות עם אוטיזם בתפקוד בינוני נמוך בגילאי חטיבת ביניים ותיכון, הלומדים בבית הספר לחינוך מיוחד "מגשימים" המשולב במתחם "חוות הנוער הציוני". האחאים שהשתתפו בקבוצה היו אחים של תלמידים שלמדו בבית ספר "מגשימים".

בתחילת ההרצאה נעסוק ברקע תאורטי הקשור בהתמודדות של אחאים לילדים עם צרכים מיוחדים בכלל ואחאים לילדים בספקטרום האוטיסטי בפרט. אחר כך נתיחס לקבוצות תמיכה לאחאים וממצאים הקשורים בהתערבות קבוצתית. לבסוף תתואר קבוצת האחאים הייחודית תוך דיון בהבנות ממנה מבחינה תאורטית ומעשית.

המאמר פורסם לאחרונה בספר "הספקטרום בראי הזמן - אתגרים ויעדים לבוגרים עם אוטיזם בתפקוד גבוה". בעריכת ד"ר סוזן לוינגר. הוצאת אח 2017



ד"ר נורית פלזנטל-ברגר הינה פסיכולוגית התפתחותית וחינוכית, ראש תחום שילוב וצרכים מיוחדים במכללה האקדמית אונו. מנהלת שותפה ביחידה ההתפתחותית שפ"ח ירושלים. בעלת קליניקה פרטית ועוסקת בטיפול, מחקר והוראה, בתחומים של שילוב וצרכים מיוחדים, טיפול דיאדי אינטגרטיבי.

שיתופיות משפחתית באינטראקציות אם-אב-ילד: המקרה המיוחד של ילדים צעירים עם אוטיזם

פרופסור דוד אופנהיים, החוג לפסיכולוגיה והמרכז לחקר התפתחות הילד אוניברסיטת חיפה

מחקרים על אינטראקציות דיאדיות בין אימהות וילדים צעירים עם אוטיזם מצביעים על חשיבותה של אינטראקציה רגישה ומותאמת להתפתחותם של הילדים ולמיצוי הפוטנציאל שלהם. אולם, למרות שיש הסכמה נרחבת לגבי חשיבותו של ההקשר המשפחתי הרחב יותר להתפתחותו של הילד מעבר לקשר עם האם, קיים מעט מאוד מחקר בנושא זה בקרב משפחות של ילדים עם אוטיזם. במיוחד חסר מחקר על האינטראקציה אם-אב-ילד במשפחות אלה. בהרצאה אציג מחקר שנערך על ידנו בימים אלה העוסק בבדידת המשפחתיות אם-אב-ילד בקרב משפחות לילדים צעירים עם אוטיזם. ההרצאה תציג דרך להעריך את השיתופיות המשפחתית באמצעות תצפית חצי מובנית שפותחה על ידי Elisabeth Fivaz באוניברסיטת לוזאן שבשווייץ, Lausanne Triadic Play (LTP). ראשית נראה כיצד ניתן להעריך שיתופיות בקרב משפחות עם ילדים בהתפתחות הטיפוסית באמצעות ה־LTP, ולאחר מכן נשאל האם תצפית זו מתאימה גם לילדים עם אוטיזם. ספציפית, האם ניתן לבסס ברית משפחתית שיתופית כאשר לילד קשיי תקשורת ואינטראקציה משמעותיים כפי שהדבר בקרב ילדים עם אוטיזם. אציג תוצאות ראשוניות ממחקרינו ששופכות אור על שאלה זו, ונדון בהשלכות של המחקר להערכה וטיפול במשפחות עם ילדים צעירים עם אוטיזם.



פרופסור דוד אופנהיים הינו פסיכולוג התפתחותי במחלקה לפסיכולוגיה ובמרכז לחקר התפתחות הילד באוניברסיטת חיפה. מחקריו עוסקים בחשיבות של יחסי הורים-ילדים להתפתחותם הבריאה של הילדים הן בהתפתחות הטיפוסית והן בהתפתחות הבלתי טיפוסית, ובמיוחד באוטיזם. דגש מיוחד במחקרים הינו על התובנה ההורית לעולמו הפנימי של הילד וחשיבותה לביסוס יחסים בטוחים בין הילד להורה ולטיפול התפתחותו של הילד.

מפגשים – פרופילים שונים בתוך משפחות, התאמה וקושי

מירב קאסוטו פסקרה, מרפאה בעיסוק, מטפלת DIR מוסמכת

נושא הוויסות בכלל והוויסות החושי בפרט מלווה את החשיבה הטיפולית בדורות האחרונים, מרבית המחקרים הקיימים בנושא, נעשו בתחום הילדים. בשנים האחרונות יותר ויותר מחקרים עוסקים בוויסות החושי במהלך החיים.

הוויסות החושי מושפע הן ממרכיבים ביולוגים ראשוניים שאיתם מגיע הפרט לעולם והן מהקשרים שהוא יוצר עם הסביבה בה נולד, ומתהליכי קו רגולציה שלו עם המטפלים סביבו. כיום ידוע כי הפרופיל החושי הוא מולד ומלווה אותנו גם כמבוגרים.

מבוגרים וכן ילדים מגיבים באופן התלוי בסוג הפרופיל החושי שלהם. הפרופיל ישפיע על ההתנהגות הכללית וההתנהגות החברתית-רגשית של אותו אדם, כפי שמדווח בספרות בשנים האחרונות.

במבוגר ההתייחסות לפרופיל החושי שונה מאשר אצל ילד. בעוד שבילד מושפעת התפתחותו האישית מן הקושי בוויסות ומתוך כך נובע הרציונל הטיפולי. אצל מבוגרים ההתייחסות היא אחרת:

- כיצד הפרופיל החושי משפיע על דפוסי ההורות?

- כיצד הפרופיל החושי האישי משפיע על המטפל בסביבה הטיפולית?

- כיצד משפיעות התמורות בחיי הבוגר על מצב הוויסות שלו?

מודל ה־DIR רואה את הקשר בין הוויסות החושי של הילד ושל ההורה וההתאמה בין הפרופילים השונים, כמשפיע על דפוסי הקשר (attachment), ההתכוונות והקו רגולציה בניהם. מה שמאפשר לילד להיות ולהתקיים.

במהלך ההרצאה נעסוק בשאלות אשר עולות מן המפגש על הפרופילים השונים, מהו הפרופיל של הילד ומהו הפרופיל של ההורה, כיצד משפיע הפרופיל החושי והרגשי הייחודי של כל אחד על הקשר.



מירב קאסוטו פסקרה, הינה מרפאה בעיסוק התפתחותית. מוסמכת לטיפול והדרכה לפי גישת ה־DIR, תואר ראשון ושני בריפוי בעיסוק. בעלת ותק בטיפול בילדים בעלי קשיי התפתחות נרחבים וילדים המאובחנים על הספקטרום האוטיסטי, בצוות רב־מקצועי. כיום מדריכה מרפאות בעיסוק וצוות ממגוון מקצועות את מודל ה־DIR, במסגרות של "טף לטף", "עץ הדעת" וגני "סולם" ומטפלת בקליניקה פרטית במודיעין. בעבר היתה חברה בצוות של ארגון DIR ישראל וכיום משתתפת או מדריכה מטפלות בסמינר השנתי של ארגון DIR ישראל.

יום חמישי 25.1.2018

“כמו לוליין על חוט” – פרדוקסים מובנים בחוויה ההורית לילדים עם אוטיזם

תמות פרדוקסליות בחוויה ההורית של הורים לילדים על הספקטרום האוטיסטי ותפקידו של טיפול בהורות בתמיכה בהורה במציאת איזונים אישיים

נועה גינוסר, פסיכולוגית קלינית. פסיכולוגית אחראית תחום גנים ומרכזי טיפול, אלו"ט

ההרצאה תעסוק בטיפול בהורות עם הורים לילדים בספקטרום האוטיסטי. ההרצאה תמשיג את האתגר היחודי של הורות לילד על הספקטרום האוטיסטי וכיצד אתגר זה מציב את ההורה בהתמודדות קבועה עם לחץ ומתח גם בדרישות מוגברות במציאות (“לחץ אובייקטיבי”) וגם במערכת היחסים ובחוויה ההורית (“לחץ סובייקטיבי”). גורמי לחץ אלו מהווים גורם סיכון לבריאות הנפשית ועלולים להגביר מצבים של דכאון וחרדה ואף להפחית את יכולתו של ההורה להיות רגיש ותגובתי לילדו. המחקר מראה שכתוצאה מכך, הבריאות הפיסית של הורים לילדים על הספקטרום האוטיסטי עשויה להפגע בטווח הארוך. טיפול בהורות מסייע להורה לבצע שינוי בחוויה ההורית ובהתייחסות לילד על ידי תמיכה בהגברה של הויסות העצמי של ההורה והאפשרות למנטליזציה וכתוצאה מזה הגברה של חוויות המסוגלות ההורית והחמלה ההורית.

במהלך ההרצאה אמשיג מודל לטיפול בהורות בהורים לילדים על הספקטרום האוטיסטי. נמשיג 5 תמות פרדוקסליות בחוויה ההורית. שני פרדוקסי על – פרדוקס השפעה ופרדוקס ההכרה. ושלושה פרדוקסי משנה – פרדוקס המסוגלות, פרדוקס המנטליזציה ופרדוקס ההתקדמות. נדון כיצד המטפל יכול לזהות את התמה הפעילה בחוויה של ההורה ומהן ההתערבויות שישרתו את ההורה כדי למצוא במתח הפרדוקסלי איזון אישי ויחודי בכל רגע נתון. הרצאה תלווה בדוגמאות קליניות.



נועה גינוסר (MA) הינה פסיכולוגית קלינית, פסיכולוגית אחראית תחום גנים ומרכזי טיפול, אלו"ט, חברה בצוות ההוראה והדרכה של “טיפול פסיכותרפיה ילד-הורה” (CPP) במצבי טראומה מטעם מכון חרוב, מלמדת בביה"ס לפסיכותרפיה “הגל החדש” במרכז הבינתחומי, הרצליה, בעלת קליניקה פרטית במושב מסילת ציון. נעה פיתחה וכתבה את המודל “ההתפתחותי-התנהגותי” המשמש את עמותת אלו"ט לטיפול באוטיזם בגני תקשורת. נעה מלמדת ומדריכה צוותים מקצועיים במסגרות שונות (אומנה, מכונים להתפתחות הילד, שפ"חים ועוד), ומלווה ילדים והורים במצבי חיים מורכבים הנובעים מאתגרים נורו-התפתחותיים ומצבי דחק וטראומה. עבודתה הטיפולית אינטגרטיבית וכוללת עבודה התייחסותית תוך השענות על הבנה התפתחותית והתערבויות ממוקדת רגש ומבוססות התקשרות.

מה מסתתר מאחורי התנהגות חזרתית, חלון לתוך עולמם של הילד וההורה

ד"ר יאנה פלג, פסיכולוגית, מטפלת DIR מוסמכת

יעל ברוק-ביניא, מרפאה בעיסוק, מטפלת DIR מוסמכת, מנהלת ארגון DIR ישראל

בתום יומיים של הרצאות העוסקות במשפחה, בהתמודדויות השונות בתוך המשפחה ובגורמים שונים המשפיעים ומושפעים זה מזה בהרכב המשפחתי, ננסה, במהלך הרצאה זו, לצפות בעולמם של הילד וההורה דרך ההתמודדות עם אחד האספקטים המאתגרים את המערכת המשפחתית פעמים רבות - התנהגויות חזרתיות.

כאשר ילדים בוחרים לחזור על אותה תנועה, פעולה, משחק, סיפור, שוב ושוב או כאשר הבחירות שלהם אינן ברורות לנו, או נראות חסרות משמעות או כוונה, אנו - הורים, אחים, מחנכים ומטפלים, מתקשים להבין את הסיבות לאלה, וחשים חרדה ותסכול. פעמים רבות התנהגויות חזרתיות מעוררות מתח בקרב בני משפחה ומדגישות את השוני של הילד. במהלך הרצאה נביט בהתנהגויות חזרתיות דרך ההגדרות הרווחות שלהן מחד ודרך משקפת מודל ה־DIR והעדשה הרב־מקצועית החושית והרגשית מאידך. נעסוק בתפקידה של התנהגות חזרתית, ננסה להבין מה היא משרתת וכיצד ניתן באמצעותה להבין את הילד ואת מה שהוא מספר לנו על עצמו ובמקביל נביט על ההשפעה של התנהגות זו על הורים, על אחים על מטפלים ועל החוויה המשותפת העולה מתוך אלה.

במהלך הרצאה, נציע הסתכלות אלטרנטיבית על התנהגות זו. נראה כיצד עצירתה או הפסקתה עשויה להגביר את החרדה של הילד וההורה ונבדוק כיצד ההקשבה לה מאפשרת מפגש, הבנה יותר עמוקה, ושזירת סיפור משותף בין ילד להורה בדרך לצמיחה והתפתחות.

ההרצאה תלווה בסרטי וידאו תוך סיפורם של ילדים והורים שדרכם ננסה להאיר את המשמעויות החבויות בהתנהגויות אלה. נצפה בתגובותיהם של ילדים ומטפלים להתנהגות חזרתית וננסה להבין מה קורה לכל אחד מהם כשהתנהגויות החזרתיות מופיעות.



יעל ברוק-ביניא, הינה מרפאה בעיסוק, מנהלת את ארגון DIR ישראל בעמותה לילדים בסיכון. דוקטורנטית ב־PSP (Professional school of Psychology). הייתה ממקימי ארגון DIR בישראל, חברה בארגון Profectum האמריקאי. מדריכה מטפלים בעמותה לילדים בסיכון ובמסגרות חינוכיות וטיפוליות שונות ברחבי הארץ, מלמדת במרכז עירוני לפסיכותרפיה בסמינר הקיבוצים ובקורס אוטיזם בחוג לריפוי בעיסוק באוניברסיטה העברית בירושלים ובעלת קליניקה פרטית במושב מסילת ציון.

ד"ר יאנה פלג, הינה פסיכולוגית, היתה מנהלת קליניקה רב־תחומית "White Tulip" בקליפורניה, המתמחה בטיפול אינטגרטיבי בילדים, מבוגרים ומשפחות. בעלת נסיון רב באבחון וטיפול בילדים עם הפרעות התפתחותיות, רגשיות ותקשורתיות. מטפלת מוסמכת ומדריכה על פי מודל ה־DIR. ארגון DIR ישראל.

תקצירי מושבים מקבילים

יום חמישי 25.1.2018 מושבי בוקר 11:00-12:30

DIR בתוך ומחוץ לקופסה

תמיכה בקשר הורה-ילד בחדר הטיפולים, בבית וקהילה

ד"ר עליזה יג, פסיכולוגית קלינית, מכון סימני קשר, פתח תקווה

ענת אופנהיים, MS.c., OTR, מרפאה בעיסוק, מרכז מילמן חיפה

קיימת הסכמה בתחום בריאות הנפש של הילד, כי תמיכה וחיזוק הקשר בין הורים לילדים הם בעלי חשיבות עליונה להתפתחות ילדים בכלל, וילדים בעלי צרכים מיוחדים בפרט. משחק ואינטראקציה המותאמים להתפתחות ולמאפיינים הייחודיים לילד, מאפשרים לפתח יכולות רגשיות וקוגניטיביות משמעותיות כמו התקשרות בטוחה, תקשורת מורכבת, וחשיבה מורכבת ומופשטת. עם זאת, פעמים רבות ההורים מגיעים עם חששות וקשיים ביכולתם להורות את הילד המיוחד ולטפח את ההתפתחות והצמיחה שלו. לכן, מטרה חשובה בטיפול היא חיזוק בטחון ההורה והאמון ביכולתו להורות את ילדו. מודל ה־DIR ומרכיב המשחק הייחודי בו - Floortime, פותחו על מנת להגביר את המודעות והרגישות של ההורים לדרך הייחודית שבה ניתן לתקשר עם הילד ולתווך לו את העולם תוך הבנת הפרופיל האינדיבידואלי שלו. משמעות גדולה יש לעבודה "בתוך הקופסה", הווה אומר חדר הטיפולים, אך גם להתנהלות ההורה עם ילדו "מחוץ לקופסה" - מחוץ לחדר הטיפולים: בזמן ארוחות, טיולים משפחתיים, התארגנות ועימותים שמתעוררים. בסדנא זו נציג דרכים ושיטות לבנייה וחיזוק היחסים בין ההורה לילדו. ניתן כלים על מנת לאפשר להורה לקחת את התפקיד המרכזי באינטראקציה בינו לבין ילדו. יינתנו כלים ברבדים שונים כגון, רמת המשחק והאינטראקציה עם הילד, לצד דגשים בהתנהלות היומיומית עם הילדים.



ד"ר עליזה יג הינה פסיכולוגית קלינית מומחית, ונותנת שרותי ייעוץ, הדרכות והכשרות במגזר הפרטי והציבורי בתחום האוטיזם, התפתחות הילד ומודל ה־DIR. הקימה ומנהלת את "סימני קשר" - מכון טיפולי התפתחותי רב־תחומי לתינוקות, ילדים ונוער עם צרכים מיוחדים ומשפחותיהם, כולל ילדים המאובחנים על הספקטרום האוטיסטי, עם בעיות קשב וריכוז וילדים עם קשיים מורכבים אחרים. ממקימי ומובילי אירגון DIR הישראלי וכיום בוועד המנהל של הארגון.

ענת אופנהיים הינה מטפלת משנת 1985. עובדת עם ילדים ומשפחותיהם מגיל הניקות ועד בית ספר יסודי-כולל, במסגרת פרטית ובמסגרות ציבוריות שונות באזור חיפה והצפון. אחראית צוות הריפוי בעיסוק, חברה בצוות הבכיר ומדריכה במרכז מילמן, חיפה. מרכז המתמחה בטיפול בילדים עם אוטיזם ומשפחותיהם. מדריכה צוותים רב־מקצועיים טיפוליים וחינוכיים במסגרת פרטית וציבורית על פי מודל ה־DIR מעבירה סדנאות והדרכות פרטיות לאנשי מקצוע מדיסיפלינות שונות להכרה והתמחות בגישת ה־DIR. משמשת כעמית הוראה בתכנית הבינתחומית להתפתחות הילד, אוניברסיטת חיפה.

הכניסיני תחת כנפך - אם ואחות, סיפור דרך

על החיים כאחות וכאם לילד בספקטרום האוטיסטי, על המפגש בין המטפלת למשפחה. תובנות מתוך הדרך המשותפת בטיפול על פי מודל ה־DIR

ענבל הימן, מרפאה בעיסוק, M.A. בהתפתחות הילד

שירית עיברי עבדי, אמא אחות וסטודנטית לחינוך מיוחד

הסיפור הזה רצוף אתגרים, התמודדויות, דאגות ונדודי שינה אין סופיים, אך גם הומור, פתרונות, תובנות ועוצמות חדשות.

שירית - אמא, אחות וסטודנטית לחינוך מיוחד, תספר את הסיפור מנקודות המבט השונות שלה. הסיפור המשפחתי על כל המורכבויות, ההתלבטויות וסימני השאלה.

ענבל - מרפאה בעיסוק ושותפה לתהליך הטיפול, תאיר דגשים מזווית הראיה של מטפלת ה־DIR. תתאר את ההתמקמות שלה אל מול הילד והמשפחה ותנסה להדגיש נקודות הנוגעות לפרופיל הייחודי של טל בנה של שירית ולמפגש עם בני המשפחה שלו.

בהרצאה נדון באופן שבו השפיעו כל אלו, על הרציונל של ההתערבות הטיפולית, הכניסה לבית המשפחה ובניית תכנית הבית.

בסיפור ישזרו תמות שונות הקשורות במשפחה שיש בה ילד עם אוטיזם, תוך התמקדות בשתיים מרכזיות:

1. מטריצה של זמן ומרחב: אשר תכלול את נושא העיבוד החזותי מרחבי, כפי שבאה לידי ביטוי בהתפתחותו של טל ובהתמקמות המשתנה של ילד, משפחה, אחים ומטפלים. נתמקד בפער הגדול שראינו בין טל בסביבה מכוונת ומותאמת, לבין טל בעולם האמיתי, הלא מכוון (גן רגיל, חצר, משפחה מורחבת, עיר, מושב). נתבונן על האתגרים באבחון ובטיפול כתוצאה מפער זה.
 2. משפחה תחת זכוכית מגדלת: החשיפה והחדירה למשפחתיות על ידי מאבחנים, מטפלים, אנשי חינוך ומכרים. חוויית הבחינה המתמדת וסימני השאלה המתעוררים בעקבותיה.
- ברקע ישמע גם קולו של הדוד, הנמצא בקשת האוטיסטית, המשמעות של הקול הזה עבור המשפחה, עבור שירית, בתוך תהליך הגידול של טל והתובנות הנגזרות ממנו.



שירית עיברי עבדי הינה אשת פרסום, מנהלת פיתוח עסקי ועובדת עם נוער בסיכון (בהתנדבות ובשכר) בעברה. כיום סטודנטית לחינוך מיוחד בגיל הרך ואם לשניים במשרה מלאה.

ענבל הימן הינה מרפאה בעיסוק בעלת תואר M.A בהתפתחות הילד. עבדה במשך שנים במכון להתפתחות הילד עם ילדי CP וילדים עם לקויות התפתחותיות מורכבות. כמו כן, עבדה שש שנים ב"יחידה לבריאות הנפש של הגיל הרך" באשדוד, בטיפול והדרכת מטפלים לעבודה עם ילדי ASD וכן עבדה במסגרת זו, עם תינוקות ופעוטות עם הפרעות אכילה. כיום מטפלת ומדריכה צוותי טיפול וחינוך בגני תקשורת. בעלת מכון ענבלים - לטיפול בילדים ומשפחות, רכזת כנסים בארגון ה־DIR ישראל.

מעבר למילים: סדנת היכרות לקידוד מנטליזציה הורית גופנית

ד"ר דנה שי, בית הספר למדעי ההתנהגות, המכללה האקדמית תל אביב יפו

מנטליזציה הורית גופנית (Parental Embodied Mentalizing - PEM) היא גישה ושיטה המתמקדות בתהליכים מובלעים לא וורבליים בין ההורה לתינוק ואשר מתייחסת ליכולת ההורה להבין את מצבו הנפשי של התינוק כפי שהוא מובע באמצעות תנועות גופו (Shai & Belsky, 2016; Shai & Fonagy, 2014).

הקשר בין מנטליזציה הורית גופנית למרכיבי הורות והתפתחות הילד זכה להכרה ולתמיכה מחקרית בעלת תקפות ומהימנות. מנטליזציה הורית נמצאה כמנבאת יכולות קוגניטיביות ורווחה (well being) רגשית וחברתית אצל ילדים וכמנבאת מיומנויות הוריות כמו הורות משותפת והתמודדות הורית עם לחצים (Shai & Belsky, 2016; Shai, Dollberg, & Szepsenwol, 2017).

הערכת מנטליזציה הורית גופנית כוללת התבוננות על סרטי וידאו של אותן אינטראקציות גופניות בין ההורה לילד, ללא רכיב הקול. תהליך הקידוד על פי מודל המנטליזציה ההורית הגופנית מתמקד יותר באיכות האינטראקטיבית של התנועות (קצב, משך זמן) מאשר בפעולות המבוצעות באותן תנועות עצמן (חיבוק, דיגדוג) וכן באופן שבו ההורה והתינוק מגיבים אחד לשני מבחינה גופנית.

מטרת הסדנא: סקירת מושג המנטליזציה ההורית הגופנית והתמקדות באופן הקידוד של אינטראקציות הורה-ילד באמצעות שיטת הקידוד של PEM.

הסדנא תדגים את המרכיבים החשובים של מערכת הקידוד הנלקחים בחשבון במהלך הערכת סרטי הווידאו. הסרטונים יאפשרו טעימה מתהליך הקידוד ומהשיקולים הנלקחים בחשבון במהלך הקידוד. מטרתה של טעימה ראשונית זו של PEM היא להוות מקור מידע לעבודה תיאורטית, אמפירית וקלינית עם הכלי.



ד"ר דנה שי, הינה חוקרת פסיכולוגיה התפתחותית, בעלת דוקטורט בפסיכולוגיה קלינית-התפתחותית מאוניברסיטת לונדון. חברת סגל בבית הספר למדעי ההתנהגות במכללה האקדמית תל אביב יפו ומובילה שם את המעבדה ההתפתחותית החדשנית. חוקרת התפתחות רגשית מוקדמת, מנטליזציה הורית מילולית וגופנית, הורות ויחסי משפחה. בעלת רקע בפסיכולוגיה התפתחותית פסיכואנליטית, טיפול בתנועה, מחול ופילוסופיה.

יום חמישי 25.1.2018 מושבי צהריים 13:15-14:45

לצאת מן הארון אל העולם, או להכניס עולם שלם לתוך ארון

התמודדות אישית ומשפחתית עם חשיפה והסתרה של האוטיזם

רינת בראון, אמא לתאומים עם אוטיזם, עובדת סוציאלית ומטפלת משפחתית וזוגית מוסמכת

מדוע משפחות רבות, לאחר שילדן מאובחן עם אוטיזם, מתחילות להסתגר, להתכנס פנימה, ליצור סודות בתוך המשפחה (מול חברי משפחה מסויימים, מול הילד המאובחן וכד') ולמול מעגלים שונים בסביבתם החברתית? מדוע משפחות אחרות נוטות להחצנה וחשיפה מיידית? מה מתרחש בעומקי נפשם של הורים ומשפחות הנעים על פני רמות שונות של חשיפה והסתרה בנקודות זמן שונות בחייהם ובמעגלים השונים בחייהם? האם המשלבות צריכות להיות סמויות או גלויות? כמה זמן ניתן להחזיק סודות? מתי ואיך פותחים את נושא האוטיזם עם הילד המתמודד איתו?

מטרת הסדנא שלפנינו הנה לצלול ולגעת בכאב המשפחות המתמודדות עם אוטיזם. בסדנא נעמיק את ההבנה של תהליכי האבל, החרדה, האשמה והבושה עימם מתמודדים רבים. נבחן את האופן בו תהליכים תוך נפשיים ובין אישיים משפיעים על הבריאות הנפשית של בני המשפחה, על הדינמיקה והאינטראקציות בתוך המשפחה ולמול החברה. ניגע בדילמות סביב הסיכונים והרווחים ההתפתחותיים הנובעים מכל בחירה של חשיפה והסתרה, וכיצד אלו משליכים על יכולתו של הילד והמשפחה לנוע ולהתפתח בשלבי מעגל החיים ולהשתלב בסביבה החברתית.

מקום חשוב לא פחות ניתן לזיהוי העמדות ודפוסי ההתמודדות האישיים של המטפלים השונים במשפחה עם אבל, בושה, אשמה וחרדה. הבנת האופן בו תהליכים מקבילים ותהליכי השלכה והזדהות מתקיימים ומשפיעים על התמודדות המשפחה, בין אם הם מדוברים בחדר הטיפולים ובין אם לאו.

הסדנא תלווה בהתנסות חוויתית, בשיתוף בניסיוני האישי, בצפייה בקטעי וידאו ובדיונים. הבנה זו תאפשר למטפלים להעז ולגעת בתהליך מורכב ורגיש זה כשהוא עולה בחדרי הטיפולים מתוך המשחק החופשי של הדיאדה, המשפחה או הפרט. העמקה בנושא תאפשר לא רק למטפלים רגשיים, אלא גם למטפלים פרא רפואיים לבחון כיצד נוכחותם המקצועית והאנושית ברגעים משמעותיים אלו בחיי המשפחות יכולה לתרום להתפתחות והתחזקות הילד והמשפחה כולה המתמודדת עם אוטיזם.



רינת בראון הינה עובדת סוציאלית בעלת תואר MSW, ומטפלת משפחתית וזוגית, עובדת בתחנה לטיפול משפחתי וזוגי בראשון לציון. רינת, אמא לתאומים עם אוטיזם, משלבת בהרצאותיה ידע תאורטי ופרקטי עם ניסיונה האישי משני צידי המתרחס הטיפולי.

Not Easy to be Izzy

הצפה - רגיעה ומה שבניהם - אתגרים תקשורתיים של איזי עם הוריו ואחיו המיוחד

יעל סנדרו, מרפאה בעיסוק התפתחותית

זכיתי ללוות משפחה מיוחדת, במהלך טיפול בבן הבכור ובהמשך באיזי. אחיו הגדול מאובחן על הספקטרום ואחיו הצעיר עם התפתחות תקינה. לאיזי עצמו לא קל, גם לו אבחנה ואתגרים נוירולוגיים רבים. איזי דובר שלוש שפות והיה משולב במספר רב של מסגרות חינוכיות רגילות וטיפוליות. כיום לומד בכיתה ג' רגילה בבית ספר צרפתי.

בהצגה אתאר שנתיים מתוך מסע ממושך של למעלה משש שנים עם המשפחה, כשנתיים עם האח הבכור ובהמשך כארבע שנים עם איזי. אשים דגש על הוויסות האישי החיוני לצורך וויסות הדדי בין איזי להוריו ובין איזי לאחיו. נחוה יחד את המפגשים שהיו מגוונים בתכניהם וכללו גם מרחבים שונים, בבית ובקליניקה. בנוסף התברר מוקדם בתהליך הטיפולי, הקושי בקשר של איזי עם אחיו. כל ילד לומד הרבה מהאחים שלו, ויחסים אלו מורכבים בכל משפחה, אולם במקרה שלפנינו הענין בקשרים וההנאה המשותפת מסובכים עוד יותר. בניית החיבורים עם אחיו חייבו הבנת הפרופיל הייחודי של איזי ושותפיו לקשר, הארת הכוונות העומדות בבסיס ההתנהגויות לשם העמקת הקשרים ההדדיים וההנאה המשותפת בין האחים והרחבת חוויות הנחת והגאווה מצד אמהותיו. נשבת בקסמה של המשפחה הייחודית ובאיזי התאהבתי במיוחד. המורכבויות האישיות, ההתפתחותיות והתרבותיות זימנו לא מעט אתגרים. עם זאת המסירות האינסופית והאמונה בכוחות המשותפים האירו בכל פעם מחדש את היופי האדיר של המשפחה. התקדמותו של איזי והמוטיבציה האדירה שלו להצליח ולא לוותר למרות המכשולים מגוף, מבית ומחוץ, מהווים השראה לכל ילד ומטפל.



יעל סנדרו הינה מרפאה בעיסוק בעלת תואר B.Sc ובעלת תואר ראשון בביולוגיה. מטפלת משנת 1987 בילדים עם קשיים מורכבים ובמשפחותיהם במסגרת המרכז להתפתחות הילד של משרד הבריאות ובקליניקה פרטית. שותפה ב"צוות תקשורת" ב"צמיחה" במרכז ווראיטי בירושלים. בנוסף מדריכה צוותים טיפוליים וחינוכיים, בגישת DIR במסגרות פרטיות וציבוריות וכן מרצה בתכניות הכשרה שונות למטפלים התפתחותיים.

מהקליניקה אל המציאות הביתית: Floor Time עם האח בבית

רותי ויצמן, קלינאית תקשורת, B.A בהפרעות בתקשורת

לעיתים, גם אחרי שנים של טיפול, קיימים תהליכים התפתחותיים הבאים לידי ביטוי בחדר הטיפולים והעברתם לסביבות נוספות מהווה אתגר עבור המטופל, משפחתו והמטפל. כך היה גם עם י' והוריו לאחר כארבע שנות טיפול, כשהוריו של י' סיפרו על קשיים משמעותיים של י' לשחק עם אחיו, מה שהביא להחלטה להעביר את הטיפול מהקליניקה לביתו של י'. בהרצאה יוצג "פרק" קצר מתוך תהליך ארוך שעברו י', הוריו והמטפלת: טיפוס בסולם השלבים ההתפתחותיים יחד עם האח בחדר המשחקים שבבית, תוך התייחסות לשלושת מרכיבי מודל ה-DIR. יוצג התהליך שעברו האחים וההדרכה שניתנה להורים תוך שיתוף בלבטים והאתגרים הטיפוליים שהיו בדרך.



רותי ויצמן הינה קלינאית תקשורת ובעלת תואר BA בהפרעות בתקשורת, מטפלת DIR מוסמכת מטפלת משנת 1993 ומדריכה משנת 1998. עובדת עם ילדים ומשפחותיהם מגיל ינקות ועד בית ספר יסודי במסגרות ציבוריות ובקליניקה פרטית. מרכזת מקצועית, מדריכה ומטפלת ב"פרויקט תקשורת" במרכז וראייתי ירושלים (עד שנת 2008 היה במכון הירושלמי להתפתחות הילד בירושלים) המתמחה בטיפול בילדים שאובחנו על הספקטרום האוטיסטי ובמשפחותיהם לפי מודל ה-DIR. אחראית תחום תקשורת ושפה בתחום הגנים של אלון"ט, מדריכה את קלינאיות התקשורת בגני התקשורת העובדים בשיתוף עם אלון"ט בתל אביב.

אי שם מעבר לקשת

מסע ההתמודדות של הורים לילדים המאובחנים על הספקטרום האוטיסטי

רוני מרץ, פסיכולוגית חינוכית ואמא של ניב

סופת טורנדו עזה תוקפת את קנזס. דורותי הילדה ממהרת להיכנס אל הבית ומתחבאת בחדרה, אך מקבלת מכה בראשה ומאבדת את הכרתה. הסופה נושאת את הבית באוויר וכשדורותי מתעוררת ויוצאת מהבית היא מוצאת עצמה בארץ אגדות צבעונית. גלינדה, המכשפה הטובה והיפה מהצפון, מופיעה מתוך בלון ורוד, מקבלת את פניה של דורותי, ומבשרת לה שהיא נמצאת בארץ עוץ. דורותי מוצאת עצמה בלא רצונה במרכזה של דרמה בה היא הגיבורה. סיפור מסעה של דורותי וחבריה משמש בהרצאה כאלגוריה למסעם של ההורים לילדים המאובחנים על הספקטרום האוטיסטי. קבלת האבחנה המערערת, הפוגעת בביטחון ובדימוי ההורי משולה לסופת הטורנדו ולחבטה העזה, הבית המאבד את יסודותיו ומועף באוויר ונוחת בארץ עוץ, מסמל את אובדן המקום הבטוח והצורך להתמודד עם מציאות חדשה, זרה ובלתי מוכרת. גלינדה המכשפה הטובה מכוונת את דורותי לעבר דרך הלבנים הצהובות ומציידת אותה בכוחות הנעלים האדומות, ממש כפי שההורים זקוקים בהכונה של אנשי טיפול טובים העוזרים בהתמודדות עם הפחדים ומציידים בכוחות למסע. גם ההורים מחפשים דרך, מחפשים קסם ששייב הכל על כנו. החיפוש מצריך שילוב של מידע וידע, כמו השכל שאותו מבקש הדחליל, יחד עם הכלה רגשית, כמו הלב שמחפש איש הפח, ובעיקר ההורים זקוקים להרבה אומץ להתמודד עם הדאגות והחרדות, בדיוק כמו האומץ אותו מבקש האריה. הקוסם מארץ עוץ מתגלה כמקסם שווא, אין ניסים ואין קסמים, אבל המסע הוביל כל אחד להבנה שמה שחיפש בחוץ היה כל הזמן בתוכו, וההתחברות פנימה היא שנותנת את הכוחות ואת היכולת להכיר במה שיש ולא רק במה שחסר. ההרצאה מלווה בקטעים מהסרט 'הקוסם מארץ עוץ' (1939), משלבת ביסוס תיאורטי ומושגים מתיאוריות פסיכואנליטיות (פרויד, קליין, וויניקוט ועוד), ושוזרת את חווית מסע ההורות האישית והפרטית של רוני שהיא גם אמא של ניב המאובחן על הספקטרום האוטיסטי.



רוני מרץ הינה פסיכולוגית חינוכית, בעלת תואר BA במדעי ההתנהגות מאוניברסיטת בן גוריון ו MA בפסיכולוגיה קלינית של הילד מאוניברסיטת בר אילן. רכזת התכנית ללימודי פסיכותרפיה לילדים ונוער של מרכז עירוני וסמינר הקיבוצים, סמנכ"לית מרכז הורשת - מרכז יעוץ פסיכולוגי לקידום התנהלות בטוחה ברשת, פסיכולוגית חינוכית בשירות הפסיכולוגי חינוכי בירושלים, ומטפלת ומנחת הורים בקליניקה פרטית. אמא לניב בן 8, המאובחן על הספקטרום האוטיסטי ותלמיד החינוך המיוחד בכיתת תקשורת.

The Power of Symbolic Play in Emotional Development Through the DIR (Developmental, Individual Difference, Relationship) Lens

Serena Wieder

Symbolic play is a powerful vehicle for supporting emotional development and communication. It embraces all developmental capacities. This article describes how symbols are formed and how emotional themes are symbolized whereby children reveal their understanding of the world, their feelings and relationships, and how they see themselves in the symbols they choose in play. The DIR (Developmental, Individual Difference, Relationship) model provides the framework and context for understanding the unique profiles of all children, including those with autism, and the importance of elevating feelings and impulses to the level of symbolic ideas that support emotional and behavioral regulation. Children need play where interactive relationships with parents and caregivers help them climb the symbolic-emotional ladder, even when development is uneven, as in autism spectrum disorders. Examples illustrate children solving emotional challenges, exploring the range of emotions, developing reality testing, and reaching abstract levels of thought and empathy through symbolic play and conversations unifying emotions and intellect in early childhood development. **Key words:** *autism, DIR, emotional development, parent-child interactions, relationships, symbolic play*

THE MEANING OF SYMBOLS

Peter Pan is a beloved character for many people, representing the child who does not want to grow up. Consider the following scenario in which 6¹/₂-year-old Joey plays with action figures and his mother in his story of Peter Pan, Peter Pan yells loudly at Captain Hook, “You will not hurt anyone anymore,” as he seizes him on the deck and throws him ferociously into the pirate ship’s dungeon. He

tells Wendy, “No more bad guys anymore!” He then finds the crocodile and starts to twist rubber bands around its mouth. Wendy pleads with him to go with her, “But Peter, come with me to London. You can do things you cannot do in Neverland. It’s nice in London! You’ll be safe!” Peter responds, “No, sorry, no! I know how to swim away from crocodiles here. And I don’t want to grow up. You can’t play in London. I don’t want to be a lawyer! It’s boring! I want to play!! Stay here Wendy, we will play forever!”

Joey’s voice is intense and shaky as he clenches the figures in this scene. He is wearing his beloved green Peter Pan suit, which transforms him into his ever-victorious hero, who expresses his wishes that he could always live in Neverland where he can shape his world. In play, Joey can express his fears and feelings, and he can regain control and regulate his emotions, find safe solutions for his

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problems, and access reasoning to bridge his symbolic ideas to reality. In his inner world, Joey's Peter generates excitement encompassing both anxiety and victory.

What does this play scene tell us about Joey? His choice of symbols is quite common and even obvious, beloved by many children. Who would not welcome a ship that soars through the sky, pixie dust to make you fly, friends who join your adventures, and an enemy you always defeat? Joey has read the story of Peter Pan and seen the movie many times and reenacts these images with toys and in his mind. But for Joey, the meaning of his play is his own. Its repetition is essential for him as he struggles with learning challenges at school and resistance to the increasing demands of reality. His play helps him restrain his impulses and conquer his fears and growing sense of inadequacy, providing respite and a safety zone in which to work on his turbulent emotions and communicate his thoughts and feelings.

Symbols have personal meanings

When adults play with children, they open the window into children's inner emotional experiences through the symbols they choose and stories they create. Joey's version Peter Pan is his own story. It is one example of how children symbolize emotional themes in early development through play, whereby they reveal their understanding of the world, their feelings, their relationships, and how they see themselves. Who or what they choose varies, and the content does not matter as long as it is meaningful to them. When children activate symbols in their minds and make the symbols their own, although such symbols may be familiar to others, they are imbued with the individual child's unique emotions and thoughts, which find safety in symbolic pretense where children can project, experiment, and seize powers they realize might not be available in reality, thus finding ways to understand their emotions and regulate their behavior. This symbolic process is essential for emotional development and emotional regulation.

Interface between symbolic and emotional development

This article describes the interface between symbolic development and emotional development seen through play as they mirror each other as children grow. It is a process that originates in the signaling between infants and parents early in life. Using the DIR (Developmental, Individual Difference, Relationship-based model; Greenspan & Wieder, 1998) as a framework (illustrated in Figure 1), the article provides an explanation of how children, through play, climb the successive levels of emotional-symbolic development, with steps of the ladder illustrated in Figure 2 and discussed later, allowing them to differentiate reality from fantasy and self-regulate the developmental anxieties inherent in this process (Greenspan & Wieder, 1998). The DIR model and developmental ladder illustrate the integration of affect and intellect, the hierarchy of emotional development, and how symbolic choices and play relate to other aspects of development, including individual differences in affective, sensory, and motor processes.

A critical additional point is that children with an autism spectrum disorder (ASD), although often thought to be unable to play imaginatively, do have the potential to play and to climb the symbolic ladder when intervention is tailored to their unique profiles. This occurs when intervention promotes multiple forms of symbolic expression (see Wieder & Greenspan, 2003; Wieder & Wachs, 2012).

Formation and function of symbols in development

A symbol can capture an element of reality by representing real objects, ideas, or behavior, but it is not the real thing. Rather, symbols are expressed through words, images, drama, movement, art, or music. The child's symbols reflect functional levels of emotional development along a developmental hierarchy or ladder, as represented in Figure 2. This usually begins with symbols representing the child's personal experiences of being cared

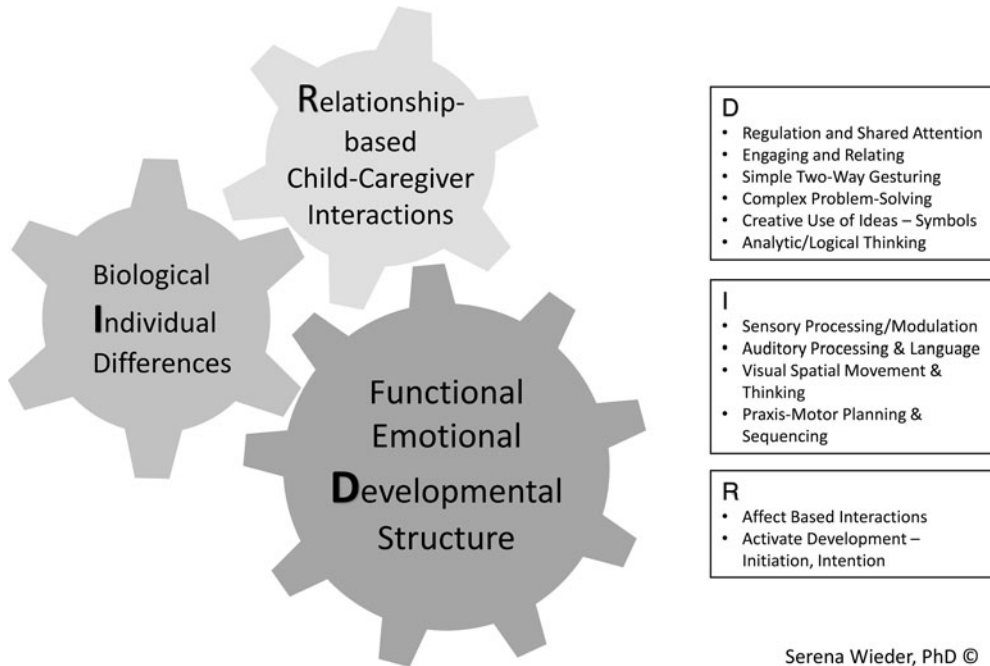


Figure 1. Representation of the DIR model (Developmental, Individual Difference, Relationship-Based). Copyright 2017 by Serena Wieder. Shared by permission of the author.

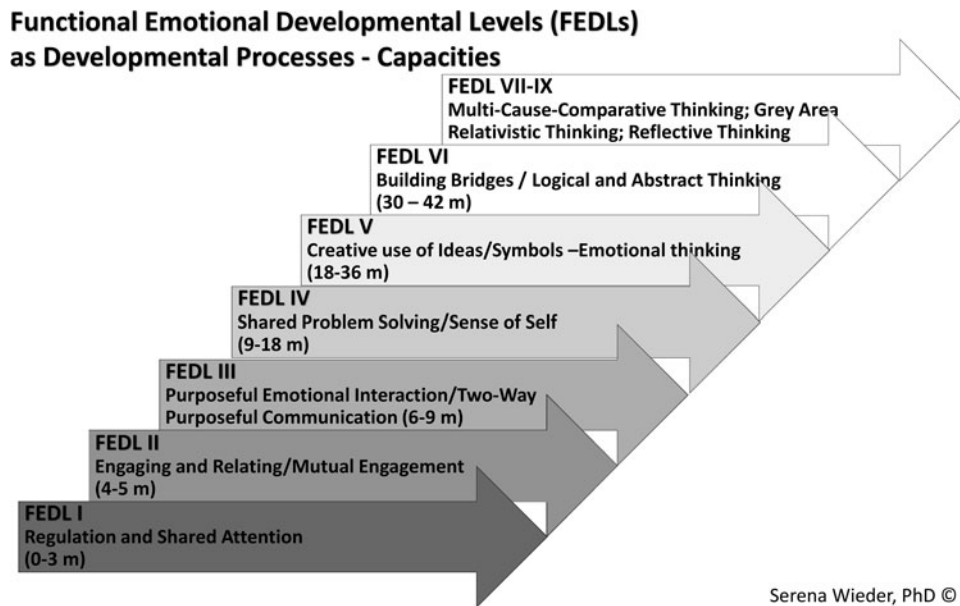


Figure 2. Illustration of Functional Emotional Developmental Levels (FEDLs) that constitute the steps of the developmental ladder children must climb as they move toward emotional-symbolic maturity. Copyright 2017 by Serena Wieder. Shared by permission of the author.

for and loved, where all needs can be met. Imagine play with teddy bears, feeding play food, and using doctor kits. Later, symbols capture more complex emotions and drives such as anger, fear, jealousy, aggression, competition, rivalry, fairness, compassion, and justice, consistent with the growing child's expanding awareness of reality. Symbolic function is crucial for emotional and behavioral regulation and the mastery of typical developmental anxiety that accompanies this expanding emotional range. Anxiety, poor regulation, and aggression may reflect poor symbolization, which can be associated with poor impulse control and acting out. This can stem from possible challenges with comprehension, empathy, and theory of mind, as well as with sensory processing and environmental difficulties and threats that derail development. Without symbolic expression to communicate and negotiate, there is no safety.

The importance of play and affect in development

Play has long been revered as the "work" of childhood. Few topics have been studied as extensively as play in the development of intellect, language, movement, social skills, cognition, and self-regulation, both historically and currently. Historically, researchers have described the stages and functions of play (Piaget, 1962; Singer & Singer, 1992; Vygotsky, 1967); more recently, researchers have examined the relationship and pathways between symbolic play and language (McCune, 1995, 2010; Orr & Geva, 2015; Westby, 1988). Others have examined the relationship between motor development or visual object recognition and symbolic development (Smith & Jones, 2011). But fewer studies have given attention to the role of affect, which is the experience of emotion that accompanies the child's development of symbols and representational play, as well as in daily living.

Affect finds a home in psychological theories of development, attachment, affect regulation, affective communication, mentaliza-

tion, therapeutic approaches, and more. As an example, Feldman and Greenbaum (1977) studied the role of affect regulation and synchrony in the play of mothers with their typical infants. The researchers found that these were precursors of symbolic competence at the age of 3 years. Similar attention has not been given to the capacities of children on the autism spectrum to engage in symbolic pretend play beyond functional and simple imitative use of objects. This gap is discussed later in this article. Deficits in free play, however, have been linked to problems with mental health, including childhood disorders such as anxiety and depression (Gray, 2011).

The role of pretend play

Historically, the role of pretend play in development has been debated by psychologists. In 1933, Vygotsky (published in English in 1967) described how a child moves forward in development through play activity, a process starting with imagining experience in real life, separating from the real objects and action into pretense, substituting images on the basis of what they mean, so that a stick or a galloping action can mean riding a horse (with no horse in sight), and creates ideas that express his wishes. In play, the child suspends reality and becomes what he wishes to be, just like Peter Pan in a ship that flies, as illustrated previously. In that example, Joey's ideas were freed from the reality and constraints of the objects in his play. He could imagine what he wished, and he expressed meanings through play and words. He insisted on play and loved to play, clearly taking pleasure in doing so, but anxiety intruded on his wishful thinking and feelings.

Vygotsky (1967) also argued that creating imaginative play is the means or pathway to abstract thinking. In contrast, Piaget (1962) described play as an epiphenomenon of other skills, such as adult interaction and language, that actually cause development. He argued that play does not promote development but reflects it. Neither Vygotsky nor Piaget put great emphasis on emotional development

and the role of affect, focusing more on cognitive development. Other researchers have argued that play helps foster development but that it is only one of several routes to development, called *equifinality*, thus minimizing the role of play in development as a unique contributor (Lillard et al., 2013).

Uniting the silos of development through play

Whereas the components of development such as language, fine and gross motor, cognition, and social-emotional abilities have been studied, it is important to consider how these developments occur simultaneously in order to understand a child's functioning as an individual. Understanding emotional development depends on examining the interaction between what the child's biology brings into the world and how relationships and the environment shape developmental capacities. As illustrated in Figure 1, Greenspan and Wieder (1998, 2005) integrated these components in the DIR model, in which child-parent interactive relationships are viewed as the key to advancing emotional and cognitive development. The DIR is an integrated theory, which utilizes a primary methodology of free play, known as Floortime. This provides the framework to examine the role of affect in symbol formation in all children. During Floortime, children are free to play in any way they prefer, and it is up to children to initiate themes that are treated as intentional as they carry on back and forth interactions with their parents or clinicians and later, their peers.

THE DIR MODEL

The DIR model, as illustrated in Figure 1, has moved away from the silos of development, where each aspect of development has been measured and reported as a separate domain, although domains sometimes could be added together to yield a developmental or intellectual quotient identifying deficits and strengths. This approach did not capture how children actually function, where multiple domains must function simultane-

ously to support comprehension, communication, relating, creating ideas, and regulating emotions. In DIR, the domains interact with each other as children interact with caregivers and the environment to create capacities that will support functional emotional and intellectual capacities. Each capacity emerges in synchrony with brain and body development early in life and continues to develop as the subsequent capacities emerge. Together they build the foundation for lifelong relating and learning.

The DIR model introduced major paradigm shifts from behavioral frameworks to a framework of dynamic-developmental systems that bring unity to emotion, experience, and reasoning. This model represents the theory and provides the context for understanding and supporting symbolic development (Greenspan & Wieder, 1998; Wieder, 1996; Wieder & Greenspan, 2003). The components of the DIR model are described in the sections that follow.

“D”—Developmental capacities of emotional and intellectual functioning

Regulation and shared attention (between infant and caregiver)

From birth to 3 months of age, infants' capacity for calm, focused interest in the sights and sounds of the outer world grows and serves as a means to be calm, attend, and share their interests with their caregivers as they look around the world. Regulation is by no means automatic. It may vary depending on the biological capacities or individual differences with which newborns enter the world and how they experience their environments. Even very young infants can convey comfort or stress to their parents who are learning to support their infant's behavioral and emotional regulation. Parents play important roles in supporting their infants' development of smooth cycles of sleep and alertness, ability to focus and shift attention, and to adapt to internal and external sensations, movement, and emotions. The capacity for behavioral and emotional regulation expands

in duration, range, and stability as children develop and share attention first with their parents and then with others. Shared attention is between people, whereas later, joint attention emerges as parents and infant attend to the same object as they play with it or look at it, such as a toy or book or an activity. Both shared attention and joint attention are usually pleasurable.

Forming attachments and engaging in relationships

During the first 4–5 months, infants and parents become increasingly intimate as they interact with each other with warmth, trust, and attunement. They use all their senses to enjoy each other through looks, hugs, songs, and movement, setting the stage for all relationships in life. A secure attachment is supported by a parent's sensitivity and insight (Oppenheim, Koren-Karie, Dolev, & Yirmiya, 2012). Over time, the growing infant will need to remain related and engaged across the full range of emotions, even when disappointed, scared, angry, or feeling other stress. As children develop, the range of emotions expands and they are expressed through symbols, as described later.

Intentional two-way affective communication

Between 4 and 10 months, the purposeful, continuous flow of interactions with gestures and reciprocating emotions gets underway. Infants begin to act purposefully, as they mature and gain awareness of their bodies and the functions they can perform. As infants gain motor control over their bodies, they are better able to communicate their desires and intentions. With the emerging abilities to reach, sit and turn, crawl and creep, give and take objects, and vocalize, infants' awareness of the interpersonal world grows, as does their awareness of their body in space and in relation to others who also may be moving.

Complex social problem solving and emerging sense of self

Between 9 and 18 months, infants—now emerging toddlers—develop the capacity to problem-solve using social interactions. Most have learned the back and forth rhythm of interactive emotional signaling, and they begin to use this ability to think about and solve their problems, such as how to do what they want and find emotionally meaningful, such as bringing Mommy to the cabinet where the cookies are. Their senses work with their motor systems and emerging language skills as they interact with others to solve problems, begin to differentiate their sense of self from others, and develop thinking. Challenges arise when old means fail to solve new difficulties, leading to new discoveries and means of problem solving. For example, when crying alone does not get toddlers what they want, they discover that they need to point or pull their parent over to what they desire, or to wait.

Creating emotional ideas

Between 18 and 36 months, toddlers begin to represent or symbolize their intentions, feelings, and ideas in imaginative play, using gestures, words, and objects symbolically. Toddlers now may pick up the toy phone to call Daddy, or they may set up a picnic or tea party for Mommy or a friend. A toddler playing symbolically may examine the sick baby with the doctor kit or repair the car with play tools, substituting objects or gestures as needed to express ideas. Images form in toddlers' minds, so they can think ahead without seeing actual toys and can now imagine the objects in context, such as having tea with one's dolls with the tea set now infused with the pleasure of having shared the delicious tea and cookies with mother (Winnicott, 1971). These first symbolic ideas come from experiences in real life that can now be enacted in personal pretend dramas as the child experiments with different roles and feelings and begins to discover magical thinking.

Emotional thinking, logic, and sense of reality

At about 3 years, young children begin to combine ideas to tell a story as they develop more logical thinking and better understanding of themselves and others and of what is real or not real. Their stories may use imaginative characters and animal figures who talk, as well as fantasy figures, from princesses and fairy godmothers to witches or wizards, as they discover the need for more power to encounter the conflicts and challenges in life. At this point, they also become able to take on the perspective of others in different roles or conversations. Just as with Joey's Peter Pan, each story has personal meaning and often is replayed in various ways. Children's advancing reasoning skills help them build sequential bridges, and their stories become increasingly logical with a beginning, middle, and end. For example, children may begin to relinquish magical thinking as the solution to everything and may begin to create logical fantasies. They can now plan an idea for an adventure in space, or be a hero defeating an enemy to bring justice, or they may step into future roles with which they identify, such as parenthood, expanding their narratives with more characters, prediction, theory of mind, and empathy. Over the next few years, children's emotional and mental abilities move toward abstract thinking and they develop the ability to distinguish reality from fantasy, self from nonself, one feeling from another, and how to take time and space into account. This capacity develops further through childhood into multicausal and comparative thinking, relativistic or gray-area thinking, and self-reflection, which are the top rungs on the developmental ladder illustrated in Figure 2.

At any of these functional emotional developmental levels, variations may exist in the robustness, stability, and completeness of these capacities. As seen with Joey, stress related to health or learning difficulties, family change and parental stress, losses, and moves, along with other events, can throw a child and family off course. At all times, it is critical to meet

individual children at the level at which they are functioning in the moment. Either over- or underestimating a child's ability and emotional status has risks. A developmental perspective means that it is important to pursue progress at any age, and the length of time progress takes may vary for each child as roadblocks or gaps are identified and need to be addressed (Greenspan & Wieder, 2006).

“I”—Individual differences in sensory modulation, sensory processing, sensory affective processing, and motor planning and sequencing

Every infant enters the world with unique characteristics determined by biology (genes) interacting with the environment. The infant's first experience is through physical caregiving practices shaped by cultural values and beliefs. The infant's body is the first object of discovery and it is the sensory information the infant takes in through touch, sound, smell, vision, interoceptive sensations, and movement in space that are the sources of relational, linguistic, and cognitive development to be assimilated in unique ways.

Consider the example of Joey again. He was born with a reactive and intense nervous system. Joey relied on symbolic play and self-talk when he was alone to modulate his anxiety and practice solutions for his fears. He held onto magical thinking where he could be successful but was also excited by the danger in his play scenarios. He did not understand the interaction between his fears and excitement and was driven to fight his enemies with poor control over his impulsiveness. Other children may have other reasons for identifying with Peter Pan or any superhero fighting evil. In some cases, children try to understand the motives of bad guys whom they see as very powerful by assuming their power in play and thereby also know that the bad guy cannot get them. It sometimes is a counterphobic attempt to not be afraid of the bad guy's aggression. Some are able to alternate roles as they develop abstract thinking to explain why good guys and bad guys both fight but one is

“good” and the other “bad.” Whichever role they experiment with, it is important to make meaning of their intent and not to confuse symbolic play with the real thing.

In the DIR model, careful attention is paid to the body, sensory processing, postural control, motor planning, visual-spatial and auditory capacities of children, and the ways they support or compromise functioning in other areas of development, especially emotionally and their sense of self. The DIR model (Greenspan & Wieder, 1999) added a theoretical framework for understanding every child’s unique profile and the impact of altered patterns of sensory responsiveness on the development of children with sensory processing challenges before these were even recognized as a diagnostic feature of ASD. Biologically based individual differences are the result of genetic, prenatal, perinatal, and maturational variations and/or deficits, including problems with modulation in each sensory modality (overresponsive, underresponsive, and sensory craving), sensory-based motor disorder (dyspraxia and postural disorder), and sensory processing (comprehension and expression) in each modality (Miller, Schoen, & Nielson, 2012). Essential for symbolic development is sensory-affective processing in each modality, which is the ability to perceive, interpret, and react to affect, including the capacity to connect “intent” and affect to motor planning and sequencing, language, and symbols (Greenspan, 2002).

These processing capacities are relevant to all children and especially so for children with ASD (Greenspan & Wieder, 1998, 1999). Recent brain studies support this contention, finding divergent connectivity in the limbic structures and the fusiform gyrus related to reciprocal communication and facial emotional processing in children with ASD, differentiating them from children with sensory processing disorders, although both share white matter brain disruption (Chang et al., 2014).

“R”—Relationships and interactions

Relationships not only activate development but also serve as a base from which

children can move into the world with curiosity and confidence to explore, discover, learn, and master. Attachment theory informs the DIR model (Bowlby, 1988; Dolev, Oppenheim, Koren-Karie, & Yirmiya, 2014; Greenspan & Wieder, 2006) and promotes sensitive and attuned interaction and insight. Relationships go beyond primary attachments, however, to expand reciprocal interactions with other caregivers to attain emotional constancy across an affective range and to support differentiation and individuation and identifications and social roles in later life. Relationships that offer attuned and responsive interaction are the vehicles for learning, encouraging initiative and intentionality, respecting a child’s own agency, and also providing the security to feel safe, accepted, and loved, taking priority over all other goals across the life span.

Together, the “D,” the “I,” and the “R” provide a unified dynamic framework to identify each child’s strengths and challenges. The DIR model can guide the experiences provided by parents and caregivers to advance development for all children and interventions when needed.

DIR’S DEVELOPMENTAL SEQUENCE: FROM SIGNALS TO SYMBOLS

Symbolic abilities build on the foundation of the aforementioned developmental processes defined in the DIR model that start at birth. The newborn must adapt to the myriad of sensations he or she experiences as the external world impinges. Some infants do so smoothly, establishing rhythms of sleep and alert wakefulness. They share attention easily, looking and referencing their parents, soothe easily when upset, and develop self-calming mechanisms over time. Others are fussy, hard to soothe, and need more coregulation to dampen the distress and heighten their focus for shared attention. Either way, these are the infant’s first emotional communications (Tronick, 1989), and the caregiver’s attunement to the infant’s sensory-affective signaling provides the preverbal foundation

for attachment as well as regulation (Schore, 2014).

From the start, parent or caregiver–infant interactions involve an exchange of emotional affective signals. The emotional signal conveys intent before engaging in an action. For example, the baby may look intensely at you deciphering who you are, before breaking into a smile, but if he feels scared or distressed, may grimace and hold his breath before starting to cry. When the parent responds to these signals and reaches for the baby, she or he can preempt action and help the baby modulate the intensity of emotions before crying or biting, for example. The “real thing,” which may be signaled by intense alarmed crying or tantrum, does not have to happen when the signal conveys intent and the parent can reassure the baby with a soothing tone of voice and holding or moving the baby. Even an older infant or young toddler can read the signals of a parent’s impatience or disapproval and knows when not to interrupt or make demands, regulating his or her behavior by staying out of the way. The memory of the looks and actions, infused with affect, will soon turn into mentalized images of the child’s experience and perceptions at the time. Through this process, signals become the precursors of symbols (Greenspan & Shanker, 2004; Winnicott, 1971). Signaling continues throughout life, carried by affect expressed through facial expressions, tone of voice, eye contact, posture, movement, intensity, and timing, conveying positive and negative meanings and feelings with many variations. How these are expressed depends on individual differences of both the child and the caregiver.

Preverbal signals

As noted previously, in the DIR model, regulation and shared attention are the first building blocks of development. They set the stage for engagement and attachment and subsequent developmental capacities. Preverbal signals abound as parents and infants connect and share affect as they “fall in love,” with increasing number of gestures to communicate

and ways to solve problems together. Motor development advances simultaneously as the 7- or 8-month-old baby reaches for a desired object the baby’s mother is holding, or as the walking toddler pulls the parent’s hand toward the object the toddler wants. In each case, these presymbolic actions stem from desire and the earlier interactions that gave the objects meaning (Schore, 2014; Tronick, 1989). Later, as toddlers develop, they do not have to see the swing in the backyard to recreate the pleasure of that experience; rather, they can imagine the delight they experience when they are swinging and their mother turns the swing into a journey to the moon and acts as the copilot. The swing is not just the fun swing perceived earlier, but it is now an internalized image, which becomes a symbol that can be transformed in many ways as the child’s ideation grows. Thus, children expand their symbolic adventures by playing not only with their parents but also with other caregivers and children.

However, affective experiences are not only pleasurable, they also may be frightening, angry, or even traumatic, encompassing a range of feelings. Often parents seek to suppress negative affects quickly, for example, by saying, “Don’t be angry (or scared), it’s okay,” even before accepting the feeling or identifying the cause for the child. Although positive feelings are more desired and comfortable, all feelings need to be accepted for children to feel safe and learn to understand their experience in order to share and self-regulate rather than act impulsively or withdraw. Sometimes children’s negative affect is intuitive and provides an important signal to the parents of anxiety, danger, or lack of readiness. Avoidance is another important signal to be understood.

Is this process automatic? Not necessarily. If the presymbolic level of signaling does not develop or is not robust, the child may not have capacities to develop self-regulation and may expect to be intruded upon and overwhelmed. If children’s signals are not read or they are unable to signal back, they may not get the support they need from their caregiver to feel safe or to change the environment.

Children then may have difficulty using affect as a symbolic signal to cope with and regulate feelings and to find solutions, with possible stress increasing and anxiety escalating and overwhelming them. In such instances, children's symbolic level may become fraught with fear and aggression as their behavior disorganizes.

Only regulated affects can serve as signals. If a caregiver misses the child's signal, such as not seeing frustration building and does not help in time, the child may act out. If a caregiver overreacts or underreacts to a child's signals, for example, when the child is anxious or scared, the child can feel overwhelmed and fail to get soothing reciprocal interactions or the help to form the symbols needed to understand his or her feelings. Such children then may have difficulty using affective interactions to regulate and may be unable to read and respond to soothing calming affective signals their caregivers offer in efforts to coregulate. The interaction between children's capacity to signal and parents' sensitivity is a critical factor in this process of development (Greenspan & Shanker, 2004; Oppenheim et al., 2012).

Separating from perceptions of the "real thing"

It is emotional signaling that enables children to separate perceptions from fixed predictable actions and to free their perceptions so as to acquire emotional meanings that become symbols. When children register sensation of what they see, hear, smell, or taste, or experience when they move, in their minds, the sensation is coupled with the emotion felt at the same time. The affective experience may be one of pleasure, curiosity, pride, or discomfort, worry, fear, or anxiety.

The experience could be stressful or invigorating, as in the following examples. Sally watches mommy walk toward her high chair with a small bowl of cut up grapes and smiles in anticipation signaling her appreciation. Danny waves his arms with excitement, keeping his gaze on Daddy as he is about to roll the yellow ball toward Danny, so that

Danny shifts his gaze to reach for the ball to push it back, already anticipating its return. Ana cuddles her teddy bear blankie as she is cuddled before bedtime. Benny frowns as he sees mommy putting on her coat and starts to whimper as she soothingly reassures him that she is going to work and will be back soon.

These perceptions are simultaneous, with an emotion and an action. When a person is able to perceive without being driven to act out or expect another's action, the person is left with a freestanding image in mind related to the action *and* the experience of how it felt. So, Danny's yellow ball is not just another object, but it takes on special meaning and becomes an image coded with the pleasure he experiences playing with his father. The image becomes a symbol representing the object or experience and the affect that accompanied it. A freestanding perception that becomes an internal symbol continues to take on meanings through experience. Ana could then cuddle her teddy bear when she is alone, feeling the comfort and security associated with her mom and can give her baby doll a teddy when playing and doing for the baby what was done for her.

The dual coding of experience and symbolic meaning

Many have described the sequence of symbolic play, as when children reenact the use of a small object demonstrating its real use, or substitute an object or gesture to show that they are drinking tea at a tea party, or feeding the baby doll or teddy bear with a toy bottle but, lacking that, by substituting a long block to represent the bottle. At such times, they are demonstrating cognitive abilities and functional play (Kasari, Chang, & Patterson, 2013; Westby, 1988). But is that all? This pretense also has emotional meaning stemming from children's own affective experiences of being fed, looking at their mother's smiling face, or hearing their father's cajoling voice to eat a little more. The teddy bear was one of Ana's first gifts. It stood watch over her as her mother cared for her, eventually becoming a transitional object representing her mother

when she left the room at night or went to school, helping her self-regulate and reinforcing the image or symbol of her mother in her mind (Winnicott, 1971).

This dual coding of experience applies to all experience in early development where affect takes the lead in learning (Greenspan, 2002). Words also take on symbolic meaning through this dual coding. A baby first learns through the signals he receives from a caregiver who lets him know that the bathwater is still too hot as the adult's voice escalates, "Hot, hot!" and then calmly reassures the baby, "Just a minute, we'll splash in just a minute." The baby does not understand the temperature of the water or the length of a minute, but these words take on emotional meanings that help the child stay regulated while observing the caregiver get the bath ready. When waiting seems frustrating, the caregiver might help the baby be patient by singing a song, or providing some toys to throw in, smiling and applauding how well the baby throws, or how happy the fish is to be back in the water and then giving a tender hug and kiss while lifting the baby into the tub and saying things about loving the baby so much and how much fun they can have. So this is the secret of "love," the secret ingredient is affect, and the process is the dual coding of experience, where emotion and intellect are one and language or actions have more than one meaning.

CLIMBING THE SYMBOLIC LADDER IN EMOTIONAL DEVELOPMENT

Social-emotional constructs are often identified together as if they are one set of skills. Or, emotional is coupled with behavior and regulation. It can be difficult to describe a child's inner emotional life, especially when young. But symbolic interests or preoccupations can indicate some of what is going on in the child's inner life. Emotional development has a unique trajectory, integrating all aspects of development reflected as one climbs the symbolic ladder and as symbolic play is guided by emotions based on this hierarchy.

Beginning with dependency, children's first symbols are used to reenact experiences of being cared for and loved. Later, they move on to discover emerging expectations often represented by symbolic figures they come to love that accompany their journeys. First, they may experience Barney as a big cuddly dinosaur who sings of happy families and love, "I love you, you love me, we're a happy family . . ." But then Barney also asks them to "Clean up, clean up, everybody do your share . . .", investing them with their first responsibility for taking care of themselves and others. Mental images start with real objects that enable children to think about those objects when the objects are not physically present. They allow the child to think about experiences before, during, and after their occurrence. Visualizing what they heard and imagining prior events help children better understand experience, know what to anticipate, and find new solutions to needs and fears. For the first time, children can integrate experiences from the past into the present and plan for the future as they imagine what will come next. Images also foster creativity as they are no longer bound by time and space in reality.

Examining the emotional content of play during the first few years of life, whether symbolized through words, toys, language, mime, stories, movement, or art, now severed from reality, reveals children's understanding of the world, their feelings and relationships, and how they see and experience themselves (Wieder, 1996; Wieder & Greenspan 2003, 2006; Wieder & Wachs, 2012). They reenact their personal worlds striving toward mastery of visiting the doctor, or understanding the reasons to fix the car, or shop, and cook. They enjoy dressing up for different roles or using figures to represent the characters involved as they practice being in someone else's shoes and what it feels like. One hears how good the food tastes, or the doctor saying, "No shots today!" or the squeals of jumping in puddles with friends as they move from reality to symbols, first "reliving" real experiences and then moving on to fantasy.

The choice of symbols

Children share not only language to communicate and create ideas but also symbols transmitted through culture representing emotional development. Examining the symbolic play and preferences children express, the symbols they adopt from shows and books they love to see and hear repeatedly, offers insight into their inner experiences. When they begin to play with these figures, it is no longer a replication of real life as earlier but a pathway to discovering themselves. Whom they dress up as or the play figures they choose, whom they form alliances with, and whom they rescue or vanquish in battle now reveals more complex emotions as they identify with more complex representations.

Consider Sesame Street, where urban characters learn letters and numbers and friendships reign, even with grouches and villains, each one unique and no one more beloved than Elmo. Or, go to the woods and find poor Winnie-the-Pooh forever searching for honey, supported by a group of friends to solve his problems. In both, there is another character like Christopher Robin, who can help. And Dora and Diego venture out into the world discovering new places, searching for answers, finding adventure. Or, Thomas the Train encounters countless challenges on his job, including stronger and more competitive trains that pass him by. *Good Night Moon* signals that it is time to go to bed with gentle farewells to the child's world. The underlying emotional task to be mastered is separation. Words and visual images prepare the child to transition from the familiar world into sleep. These characters represent preschoolers as they discover more of the world, have to think for themselves, and figure out who they are in the process. Symbols unite emotions and thinking and action as problems are solved. Emotions expand from caregiving to separation, to striving for independence, with curiosity, adventure, some fear, competition and loss, and victory. There are many developing emotions on the symbolic ladder, all true to life and symbolized safely with increasing elaboration of ideas as preschoolers prepare for reality.

The development of fantasy

Each culture provides symbols related to emotional development, handed down from legends, fairy tales, and stories transmitted over generations. Between three and six years, there is a leap, taking children beyond the emotional reality-based themes described previously into fantasy so that they can embrace magical thinking as they move back and forth from outside-in to inside-out, with the space in between described by Winnicott (1971) in *Playing and Reality*. For some, fantasy is fueled by classic fairy tales and books parents read to children, with words now conveying intense emotions related to the child's growing awareness of feelings. Here too is a hierarchy of emotional tasks advancing development as children begin to realize they may encounter threats and begin to deal with life more on their own. In the *Three Little Bears*, Goldilocks has to deal with getting lost and with her hunger and fatigue as she searches for home. She discovers a house in the woods and helps herself to porridge and rest, only to be awakened, feeling terrified, by the bears. *The Three Little Pigs* are evicted and have to manage life on their own. There are wolves out in the world and two must be rescued by their brother, who was wise and built his house out of brick, whereas they chose sticks and straw. How different they each are. In *Jack and the Beanstalk*, Jack finally cuts down the beanstalk to the dismay of the giant chasing him, seeking the golden eggs. What a heroic and reparative act after giving away the cow for a few beans. And lovely Cinderella is surrounded by chirping birds as she gets ready for the ball unbeknown to her jealous and mean stepsisters who rip her dress off, consumed with jealousy. Fantasy and realistic images blur with dragons and knights, fairy godmothers, and witches; it does not matter. The emotions are so vivid and so are the symbols representing them. Such stories usher children up another rung on the developmental ladder. Their value depends on the caregivers' response to their children's emotions when they act the stories in play or during their conversations about how the characters

felt and how they feel to encourage theory of mind, motives and perspective taking, emotional thinking, and abstract abilities.

Hierarchy of symbolized affects

Emotional and symbolic development, now expressed in play and language, expand in parallel fashion. As indicated earlier, the first themes reflect the essence of infant's and toddlers' lives, as they depend on caregivers for care, protection, enjoyment, and love in order to build attachments and the secure foundation for what is to come. With development, symbolic play moves on to reflect transition themes related to separation, disappointment, loss, sadness, and fears. Children begin to symbolize the necessity to be more assertive and independent as their play assumes more control and power to deal with competition, threats, battles, and disaster, with the incumbent feelings of danger, anger, jealousy, defeat, and victory, but also show compassion and empathy. While first accompanied by magical thinking and fantasies, more realistic and logical solutions are found as children develop, leading into integrating abstract themes, such as embracing fairness, kindness, empathy, justice, and morality.

Inherent in development is the realization of "good guys and bad guys." Mommy might be the first "bad guy" when she says, "No!" to more candy or Daddy might set limits on throwing things when the child is angry. Parents coregulate strong emotions until they can be expressed safely. The idyllic omnipotent all giving parent begins to fade as children discover their own desires and separateness. "Bad guys" also appear at nursery school when told you have to share, that is, give up your toy, or another child just grabs it. So, the seeds have been planted and transform into cultural symbols from powerful kings, kind fairies, to pirates, dragons, evil kings, and monsters, all with magical powers for better and for worse. By four or five years, children create their own ideas as they discover the power of their ideas and defeat the bad, or turn bad into good, and have the dead come back to life, often depending on such super-

heroes as Superman, Spiderman, and Batman. Soon they venture into space to take sides in *Star Wars*.

Reality testing

By this developmental point, children have been launched into testing reality. They need control and power to keep climbing up the ladder as they continue to develop and begin to understand the bigger world. Their language has developed, and they now may employ it to negotiate, detect deceptiveness, and assess trust in the service of defeating their enemies and exercising their power, be they a king or wizard or superhero, or a fairy godmother or queen or Wonder Woman. This is crucial, as pirates, giants, witches, and monsters await, ready for battle. Stories become more elaborate and coherent, with a beginning, middle, and end, with multiple characters, and with movement through time and space. All symbolic forms pitch in, and children use toys, drama, drawing, movement or dance, art and music, or some blend of all of them. The specific characters do not matter, but what they symbolize is everlasting and essential for understanding what is real or not real, what is me or not me, and the mastery of the full range of emotions, with imagination to discover the unknown and move forward until judgment and reality testing become well established.

Developmental anxiety: When symbols are bigger than "life"

Throughout development, psychological and emotional transitions generate expectable anxiety related to growing awareness of self and others and facing the unknown. Consider infants, who realize that they are looking at someone they do not know, or 3-year-olds having to separate from their parents at nursery school. Whereas most children master these anxieties with limited stress, some tend to be hypersensitive to sensations and experience affect intensely. Some are overly fearful and reactive to body damage, aggression, and unpredictable events. Others are thrown into panic when they turn

around and do not see their parent and feel lost in space. Some have catastrophic reactions to not finding needed objects or to thinking something has broken. Others feel helpless or frustrated when they cannot organize a task and especially when they do not understand what is being said because they are so anxious or because comprehension fails them. Still others live in dangerous environments or have witnessed violence.

As development advances, anxiety can stem from the child's imagination when symbols become greater than life. Symbols elicit feelings where inside and outside meet. Images and labels become embellished with powerful affects that can be positive with princesses, kindly godmothers and fairies, benevolent kings and leaders, or negative with monsters, dragons, and witches that feel all too real. With this polarization, magical thinking turns alligators, dinosaurs, and other frightening images into "bad guys" in countless stories, as adults moderate the anxiety. Verbal reassurances may work partially, if at all, and may have to be repeated again and again. Daddy may have to check under the bed, search the closet, and throw out the scary lions and monsters night after night. If children do not yet have access to magical thinking where they can defeat their enemies and create the safety they need, or a parent is not there to coregulate their fears, anxiety ensues. If a parent dismisses a child's fears or overreacts to a child's anxiety, the children may feel overwhelmed and may not get the reassuring reciprocal interactions that can help them form the symbols they need to understand their feelings. Children then have difficulty using affective interactions to regulate; they may be unable to read and respond to soothing calming affective signals; and they may act out aggressively or withdraw and become constricted. This is evident when a child becomes avoidant of emotional themes and restricts play to safe dependency themes or will not play pretend. Others may stay immersed in their fantasies, but rarely as the "bad guy," and hold onto control, having difficulty judging cues, recognizing deception, or interpreting affects.

Counterintuitively, it is useful to "deepen the plot" of themes the child starts and then pulls away from. This provides more time to grapple with motives, what the other side is thinking, explore alternative solutions, integrate more emotions, and appreciate that symbolic play is all about ideas and feelings, not actions, danger, or disapproval. Without symbols and symbolic play or conversations, anxiety may persist beyond what is expected developmentally; the child may become stressed, constricted, and act out, and these reactions can take precedence over reasoning because anxiety can derail logic and reality testing.

The power of symbols

In symbolic play, a child can have power, make the rules, practice different solutions, come back to life, and experiment again. The more children play, the more they will realize they are creating the ideas and choosing the symbols that they can change, leading to flexibility and resilience. Most children love to play, embracing the complexity with many enjoying the mix of excitement and fear that they overcome by winning. Play also promotes building of executive function because, in play, children have to organize and sequence ideas and be able to take someone else's perspective. Developmental anxiety thus provides the tension and opportunity to test what is real or not real, what is inside and outside, and what can be shared and negotiated with others.

Although children can enjoy playing by themselves, and can be heard speaking to themselves at such times, to reach its heights, symbolic play requires reciprocity and depends on interaction with a parent or caregiver who expands on the children's ideas, encourages communication, and assumes roles to help them elaborate, thus supporting their abilities to explore a wider range of feelings. When a child plays with another person, it is easy to guess who the "bad guy" always is. The interaction supports the child's emotional regulation of feelings and impulses, as well as comprehension, perspective taking, and empathy. The level of symbolic play is

related to parental willingness to engage in games of fantasy, tolerate emotional themes, and facilitate creativity. Alternatively, parental intrusiveness, depression, and anxiety are associated with reduced rates of symbolic play (Singer & Singer, 2005). Not all parents join their child's spontaneous symbolic play and prefer other ways of playing, such as sports, construction, or board games that are also important avenues for dealing with emotional and social development. Similarly, play experiences with other children can help discern the perspectives of others who may agree or disagree and have different intentions and motives. Play with friends, siblings, and school mates also helps children learn the "rules" of social play and games as they develop self-regulation and understand risk and competition.

DO CHILDREN WITH AUTISM ENGAGE IN SYMBOLIC PLAY?

Whether children with autism engage in symbolic play and how their play compares with children with developmental delays and typical children has been debated over many years. The play of children with ASD has been described as simple, stereotypical, and relying on sensory manipulation of the toys, as well as lacking in affect and theory of mind. Impaired symbolic play was once even considered a symptom of ASD, and more severe symptoms of ASD were associated with lower symbolic play ability, along with lower cognitive and language development. Like so much of the research in autism, most studies have been limited to examining autism symptoms and cognitive or language level, rather than addressing the multiple domains of development involved in symbolic play and what it represents. Attempts focused on answering whether symbolic play advances cognition, or whether a certain level of cognition or language was needed to advance symbolic play, or both, could not be ascertained. Past research has been variable with regard to levels of play, kinds of autism, numbers of children studied, whom they played with, different set-

tings, and so forth, and, therefore, inconclusive (Thiemann-Bourque, Brady, & Fleming, 2012).

Furthermore, assessments such as cognitive or language tests usually do not focus on play. Intervention efforts to address play tend to be directive or focus on skills and do not help children expand or generalize, let alone address emotional meanings. In some approaches, the play may be unrelated to the interests of the child or have little meaning to the child. Such reasons suggest why the potential benefits of symbolic play interventions have not been reached in treating autism. DIR is the exception.

Recent advances in early intervention have brought attention back to play, but not always as a targeted outcome. The Early Start Denver model included play interventions and reported gains in cognition, language, and reduction of autism symptoms, but the researchers did not examine symbolic play in their outcome studies of 18- to 30-month-olds, nor in their 6-year follow-up (Dawson et al., 2010; Estes et al., 2015). In contrast, Kasari et al. (2013) did target play as an outcome, but primarily using short-term interventions and outcomes. They questioned the view that children with autism were not competent or did not understand pretend play, but rather hypothesized that they may rarely engage in play with adults and may not have had enough adult support to shape and support their play skills. Although functional play (i.e., using toys as intended) and pretend acts can be prompted, such play does not automatically turn into the creative, spontaneous, and enjoyable experience of pretense. With limited play experience that is not matched to the child's developmental readiness to learn to play, pretend roles and thematic play may not be attained. Kasari and colleagues' JASPER program (Joint Attention, Symbolic Play, Emotional Regulation) first targets joint attention and engagement to establish developmental readiness for symbolic play. Following this, higher levels of play are supported by using the child's ideas and prompting to expand the diversity of play skills, encouraging longer

play periods. Kasari, Paparella, Freeman, and Jaromi (2008) found significant gains in joint attention and joint engagement. Additionally, a longitudinal study of 3- to 4-year olds showed these gains related to language outcomes at 8-9 years of age (Kasari, Gulsrud, Wong, Kwon, & Locke, 2010). These studies of underlying precursors related to symbolic development advanced the field of behavioral interventions, which now include more naturalistic play paradigms in early intervention (Schreibman et al., 2015). Beyond this, there is recognition that more longitudinal research is needed on the level of a child's play as a diagnostic feature, how play skills unfold over time, and increased focus on play in intervention to study multiple domains (Stanley & Konstantareas, 2006).

Assessing symbolic competence

Although helpful, the emphasis in the interventions discussed thus far has not been on symbolic play or emotional themes as intended targets, but on skills often taught in behavioral modes; nor has the development of relationship capacities that support symbolic function, a core deficit of autism, been part of those investigations. Although infants and toddlers now are screened as young as 9 months of age, and diagnosed at risk for ASD as early as 18 months of age, they are not necessarily screened for the precursors of symbolic competence.

In the DIR model, relationships are central to development, where sensitivity and responsiveness support tailoring interactions to individual differences. Clinicians working in the DIR model, including the author, report observations of how individual differences have great bearing on play, as seen in the many children with ASD who play and communicate differently (Wieder & Wachs, 2012). Extensive practice-based evidence in the form of case reports, case studies, and observations of children as they advance emotionally and symbolically are observed in the following and later examples. Because of individual differences, some children with ASD present with verbal capacities and strong auditory memory. They

may be able to repeat whole books and label countless items but be unable to use language meaningfully or to have conversations, lacking comprehension or the ability to retrieve what they want to express even though they have symbolic ideas. Other children with ASD may have relatively stronger motor and visual capacities; for example, they may line up their toys or love marble runs, construction, board games, or puzzles that have specific destinations and strategies but may be unable to engage in motor-based interactive problem solving that is unstructured, as required in symbolic play. They may have ideas but not the executive function skills to organize and sequence their thoughts or intent into symbolic play or tales. Those who have more significant difficulties may present as aimless. The potential for changing such patterns, which may be masking higher symbolic potential, can be assessed by increasing interactions attuned to more subtle signals and providing the affect to support emotional symbolic expression, while also treating underlying sensory, language, motor, and regulatory challenges.

Recent randomized controlled trial (RCT) research on interventions using play with parents and children (e.g., Casenhiser, Binns, McGill, Morderer, & Shanker, 2014; Solomon, Van Egeren, Mahoney, Quon-Huber, & Zimmerman, 2014) have shown that, when relationship-based intervention focuses on developmental capacities with interactions tailored to the individual profile of the child, such as in Floortime (Greenspan & Wieder, 2006, 2007), children may be able to develop capacities for symbolic play, communication, and thinking, even when development is uneven. More importantly, researchers have begun to focus on the core deficits in autism, relating and communicating, rather than the typical outcome measures using IQ and language skills tests.

Recent RCT studies based on Floortime, called play and parent-mediated interventions, have used methods related to the DIR model with children with ASD as old as 5 years of age. They have shown that when parents provide play interventions coached by

consultant experts (with demonstrated fidelity), autism symptoms and severity significantly reduce, and functional emotional developmental levels advance (Solomon et al., 2014). Solomon's PLAY project compared outcomes for 128 children in a year-long intervention in five sites receiving coaching in play to improve caregiver-child interactions, plus community service, with outcomes for children randomized to receive community services only. The outcomes showed large treatment effects for parent and child interactional behaviors as well as significant improvements on a standard measure for diagnosing autism, although no differences were found for language and IQ scores. Mothers in the experimental treatment using play also were found to be less directive and to experience less stress and depression (Solomon et al., 2014).

In another play-based RCT intervention for autism, which focused on the effectiveness of social-interaction model, Casenhiser et al. (2014) reported significant improvements in autism symptoms, social communication, and parent-child interactions in the intervention group but not in language skills when measured by standardized language assessments. By analyzing their data with a focus on communicative acts, the researchers showed that children in the group whose parents were coached in how to play with their children outperformed the community treatment group. The authors noted that these results underscore the importance of functional language measures reflecting conversational ability and the importance of parent-child interactions in guiding and evaluating treatment for children with autism.

In another large RCT, Pickles et al. (2016) reported on a 6-year follow-up of PACT (Parents and Children Together), a parent-mediated intervention with 152 children with autism. This research team also found evidence of the importance of teaching parents how to play with their children with ASD. The treatment group of parents received feedback on how to interact more effectively while watching their videotaped play with their children. Parents played daily with their

children in addition to standard care. Results indicated that parent-mediated interventions significantly reduced autism severity scores. Children in the experimental treatment condition initiated more interactions with their parents and showed better receptive and expressive language communication after 1 year of intervention, with continued effects 6 years later (Pickles et al., 2016).

Studies showing the effectiveness of parent-mediated interventions with children with ASD that are focused on the core deficits of relating and communicating support the importance of working with parents relationally to carry on their daily playful interactions to help their children advance in the most important ways. This added component to standard care is an essential ingredient in these studies, with play providing the opportunity to reach higher symbolic levels and improve relating and communicating. But even the year-long interventions did not fully examine the long-term development of symbolic capacities and how these capacities relate to emotional development. Although not yet part of the existing research base, observations from long-term clinical intervention by this author and other experienced clinicians provide insight and illustrate that children with autism can advance symbolically across a range of emotional experience when symbolic development continues to be supported through interactive play and conversation as children grow older (Delahooke, 2017; Greenspan & Wieder, 2006; Wieder & Wachs, 2012).

CASE ILLUSTRATIONS

The following four vignettes of symbolic play represent children who have different DIR profiles common in ASDs. All received comprehensive DIR intervention, which helped them develop capacities for shared attention, relating, preverbal communication, and social problem solving—in other words, the foundations for symbolic play. The children in these examples are composites of multiple children. All were impeded by the unevenness of their development and

exhibited different rates of progress with variations in language, visual-spatial abilities, motor planning, and motor and executive functions. Despite these delays, all of the children moved forward using their relationship and emotional capacities to cope with inner and outer experiences. When poor comprehension, poor reality testing, and social stress impinged, they had symbolic resources to keep advancing with the help of symbolic function in play and conversations with parents and other caregivers.

Suzie

Suzie teases her mom by withholding the piece of play pizza she asks for, and she pleads again. She holds out a piece and sees her Mom's glee but then pulls it back and watches her dismay. Suddenly she appears worried and throws it at her. Somewhat surprised, Mom notices the alarm in her eyes and instead of reacting, smiles gently and warmly says, "Let's share it!" and they each take a pretend bite, repairing the rupture. Suzie then offers her a drink, holding out a red block, and takes another for herself. The vivid signaling, pauses, gaze, tone of voice, and even alarm are the important elements of affect expressed in this 40-s interaction by this playful mom who sees the benefit of Suzie's assertiveness but also her ambivalence. She sensitively repairs their pizza party and recognizes her relief and appreciation. At 4 years of age, Suzie still has few words but she can name pizza and say, "no" and "here." She can pretend to eat the pizza and substitute an object, which would have given her "credit" in typical assessments of presymbolic functional play. But this would not have captured the flow of back and forth interactions, thinking and feelings she actually shared with her mother as she experimented with her power, or her ability to recognize her mother's signals to self-regulate. These are the essential play experiences that will support a trusting relationship and Suzie's emotional and symbolic development.

Sam

Sam is a tall 7-year-old boy who always wears red shirts and who loves small Disney

and Sesame Street figures. He enters the playroom, rushes to the drawer he expects them to be in, and does not find them. He appears utterly frantic, his eyes darting and glazed, and he is unable to process directions, and has no sense of how to look around the room. Once figures are placed in his hands, Sam plops down on the floor and starts arranging the toys, rarely moving from the spot. His mother sits immediately in front of him so that he knows exactly where she is. When he feels calm, Sam begins to share an idea. At first, he names the characters, with each defined by appearance; so Ernie is not just Ernie but Ernie catching a ball or Ernie in the bathtub, suggesting that Sam is unable to separate the character from his perceptions of it. One day Sam decides that the figures are going swimming in an imagined pool in the space in front of him. He "drops" each into the pool one at a time. He keeps describing the figures in fragmented phrases and waits for his mom to acknowledge each one. Suddenly, Elmo refuses to jump into the pool. Mom asks Elmo what is wrong and he says, "I can't swim." When mom tries to reassure Elmo that Big Bird the Lifeguard will help him, he says, "Lifeguards don't swim" (he has never seen a lifeguard in the water). Mom offers other figures who might help Elmo, but he despairingly says, "No one can help me!" When mom asks whether he is afraid, he nods. She then asks Sam whether he could help Elmo and he says, "Do this!" as he makes frantic swimming motions with his arms, still not moving off his spot. Suddenly, he notices Super Grover wearing a cape (like Superman) and asks, "Super Grover, will you help me?" with a sigh of great relief. Sam's story continues as these small figures converse, trying to resolve Sam's fears.

Mom knew that Sam was very worried about going to camp because Sam would be asked to swim, and she sensitively supported his problem solving, using play to practice. His language was fragmented, he felt lost in space, he did not move, he was visually bound to the appearance of the figures, and he preferred the small figures with whom he felt secure and which he loved as a younger child and still clung to. So many sensory, motor,

visual spatial, and language challenges constantly confronted him and curtailed his progress. Yet, Sam could use play to tell a story about his fears, which he initiated and persisted as he actively tried to solve his problem. Sam's mom did not correct his perceptions or direct his actions but kept the conversation going, providing affect cues while talking to his little figure friends. She asked simple questions or echoed his feelings and gave feedback when ideas did not make sense. Mom let Super Grover "save the day," after which Sam felt all was not lost, and he told Elmo, "You can do it!" The next day Sam did go into the pool!

Sam's was the play of a child with autism. The DIR-based treatment started when Sam was 2 years of age, as his multiple challenges became apparent and a comprehensive intervention program was put in place. It was not clear how long it would take, when he would talk, climb, run, play, or how he would think. His arousal level was low, he was poorly coordinated, had limited language, and did not know what to do with toys. He clung to his little figures, which escorted him for many years, and as he advanced, so did they. The intervention followed basic principles of shared attention, engagement, and 2-way communication, building on the playfulness, joyful affect, and excitement that he and his mother could share while therapies and inclusion proceeded. Sam's relationship with his mother flourished, and he progressed to becoming symbolic with his little figures where every word he uttered was meaningful. At 7 years of age, he knew how he felt and he knew how others felt, displaying capacities for abstract thinking, empathy, and theory of mind. Sam's rate of progress increased and he was included in regular education.

Daniel

Daniel wants to be a king, but what is a king to a 4½-year-old? He puts on a cape and crown and holds onto a magic wand (his scepter) as his parents sit nearby. He looks in the mirror for a moment and backs away, abruptly asking his father to make the king disappear.

Although not quite sure why his son asks him to do this, Daniel's father prompts him to say the magic words, and Daniel recites, "Abracadabra, hocus pocus, make the king disappear!" Dad swiftly swipes the crown off the king's head and puts it behind his back. Daniel sees this and begins to reach behind his back for it, when Dad again asks him to say the magic words to get it back. Then Daniel offers a crown to his Mom, and they repeat the drama. Mom reassures Daniel that she is mommy again when he uses the magic words, and his relief is palpable. Daniel then decides to try his magic on himself and tilts the crown off his head with his scepter and declares, "Now I am not the king anymore, I'm Daniel!"

Simply put, Daniel used play to explore new roles and "magic," experimenting with how he could be himself and yet also enjoy pretense, so important for a little boy now facing the bigger world. Pretending to be someone else appeared to concern him when he first looked in the mirror dressed as a king and he wanted to be sure he could undo this, hence the request to make the king disappear. The magic his father gave him invested him with power, but he was not quite sure he was ready for this or even understood it yet. His parents dramatized bowing to the king with great pride to show him the honor due a king. But Daniel wanted a partner and turned to his mom to be his queen, again reassured when she declared she was mommy again. Although somewhat anxious, Daniel persisted and tried again, this time in charge. This experience supported by his attuned parents allowed Daniel to think about who he was and what meaning this had. It was not just "dress up" and a "play act," but emotional experience that gave him mastery to imagine himself as a king in relation to others, which expanded into many ideas over time.

These moments of transformation advanced Daniel's symbolic level and he began to take on more powerful figures drawn from such stories as *Alladin* and *Toy Story*. But it took the security of relationships and lots of play with his parents to advance Daniel, who had apraxia and preferred to be a play actor

in his dramas to manipulating multiple toys. His curiosity led him to ask the Genie to go into the magic lamp and, when he played Buzz Lightyear, he thought he should go to jail for lying to Zurg, but then he turned Buzz into a baby so he would not have to stay in jail. He used symbolic play to understand and explore his emotions and advanced ideas as he became more logical.

Benny

Benny begs his mother to buy him a suit and tie. He is wearing his Superman shirt and already wears dark boxy glasses. "Why Benny?" With stumbled words and lots of gestures, he shows mom how he would swipe open his shirt and jacket, take off his glasses like Clark Kent, and be ready to "Save the Day." He will be Superman! Benny has no doubts this will work. Asked what "save the day" means, he repeats the words like a mantra and finally says, "I will help people, be nice to people." In his mind's eye, he is soaring through the sky to reach pirates who want to steal his Shopkins (small toy foods you shop for), or stop the robbers escaping the Paw Patrol (small puppy police characters who keep you safe), or put the bullies in jail, allowing just a glimmer of reality to sink in. As Superman, he could save his own day and the social anxiety and bullying he sometimes encounters. Month after month, Benny alternates between Superman, Batman, and Spiderman, ever victorious in defeating evil and defying anyone who dares block the Polar Express. Superman is his favorite. After all, he has dark hair, brown eyes, and glasses just like him. At bedtime, he sometimes threatens to become invisible, so he never has to relinquish his power and fight for justice.

Is this pretense or something more? The meanings of Benny's symbols are obvious, but he is 5 years older than most children on this mission. He expresses his fantasies clearly and repetitively. He navigates so many levels of symbols from little Shopkins to feed the world, to yelping puppies who bounce and bite to bring down their tormentors, to the invincible superheroes who defeat evil and

save the day. As he climbs up and down and up again on the symbolic ladder, Benny is contending with the challenges and angst of his own life. Does he not yet understand reality? He actually does, but his grasp is inconsistent and fractures when comprehension fails, and his naiveté and wish to be friends with and as competent as his peers lands him in a pool of confusion and vulnerability. His symbolic pretense provides respite and the time he needs to still be the little guy wishing to fight back (his Paw Patrol) but still must be rescued by a superhero, and he plays both roles. The sensitive responses of his mother and therapists help Benny reflect on his stories and wishes and consider ways to play with friends.

A year later, Benny brings history lessons into his play, explaining how the colonists won the Revolutionary War, but then he becomes distressed when he realizes that so many British soldiers died. He wonders whether we should have shared the victory, full of compassion as he identifies with the weaker force. By the time he reaches the civil war, Benny is still very empathic, but now he can use logical and abstract thinking to understand the reasons for the war. For Benny, symbolic play also gave him a way to think through and understand history and literature as he advanced.

Summary of how the DIR model advances emotional development in these examples

All these children were on the autism spectrum and demonstrated symbolic play capacities that advanced their emotional development, sense of self, resilience, empathy, and logical and abstract thinking. Each one's narrative reflects an inner journey and attempts to cope with the underlying stress inherent in development and a life often fraught with social, learning, and environmental challenges. But each narrative is also coupled with the strength of relationships with parents, teachers, and therapists who share this journey and provide the security and encouragement to advance.

The DIR model provided the vehicle that enabled all of these children to keep climbing the symbolic ladder. Not every child reaches the same capacity but integrated intervention nurtures every child's potential. Clinical experience with symbolic play over many years offers insights that are difficult to capture in RCTs but demonstrate that many children with autism can, in fact, engage in symbolic play, especially using the DIR model, where emotional development and symbolic development are targeted explicitly and where they go hand in hand (Wieder, 1996; Wieder & Greenspan, 2003).

The question is not whether children with autism can play, but what challenges might get in the way and how to strengthen and increase the child's abilities for pretense. There may be deficits in developmental capacities or individual differences in sensory motor processing that can be treated, such as auditory processing or praxis. But clinical and research evidence confirms that parent-child interactions are important for progress, and symbolic play provides the essential interventions to develop emotional, social, and abstract thinking capacities. It is important to understand all children from the point of view of emotional and developmental levels.

CONCLUSION

"If you want your children to be intelligent, read them fairy tales. If you want them to be more intelligent, read them more fairy tales" (Albert Einstein, Library of Congress Blogs, 2013). Perhaps Einstein was capturing the notion that fairy tales hold the magic for children to decipher their emotions and problems, understand people representing different views and feelings, and open their minds to imagination, discovery, and intelligence. Fairy tales are symbolic play tales, certainly not all happily-ever-after stories; rather, their protagonists each find unique solutions for life's unfolding challenges and victories.

In this article, I set out to describe the role of emotions in symbolic play for all children and to illuminate how play interactions with parents or other partners reflect the child's ideas, concerns, feelings, and desires. Symbolic play is a powerful vehicle for supporting emotional development and embracing all developmental capacities. Development has its own time table and so does symbolic development, so it is important to support all forms and levels of symbolizing as the child develops. Symbolic function includes play, as well as conversations, drama, art, music, dance, and movement. Furthermore, it is not possible to discuss play and symbolism without also recognizing their role in the development of language, narrative, and literacy. Play offers the opportunity to create ideas and stories, interacting with others. This sets the foundation for understanding history and literature, as well as for playing and working with peers.

In all its forms, symbolic play offers a safe way to practice, reenact, understand, and master the full range of emotional ideas, experiences, and feelings. It provides distance from real life and immediate needs, so that children can differentiate self from others (i.e., through different roles in play) and self from the environment (i.e., not bound by time and space). The goal is to elevate feelings and impulses to the level of ideas and to express these through words and play, supporting emotional regulation and self-control. Through play, the child develops abilities to transform reality into symbols or images that reflect their meanings and provide the opportunity to explore and differentiate the full range of emotions. In play, the child defines his emotions in his stories, organizes the sequence, and determines the outcomes. This abstract level of symbolic thinking leads to a differentiated sense of self and others, bringing along capacities for empathy and reflection, and preparing the child emotionally and intellectually for the future.

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Parental embodied mentalizing: how the nonverbal dance between parents and infants predicts children's socio-emotional functioning

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ABSTRACT

Parental mentalizing – the parent's ability to envision the child's mental states (such as desires, thoughts, or wishes) – has been argued to underlie a parent's ability to respond sensitively to their child's emotional needs, and thereby promote advantageous cognitive and socio-emotional development. Mentalizing is typically operationalized in terms of how parents *talk* to or about their infants. This work extends research on mentalizing by operationalizing parental mentalizing exclusively in terms of nonverbal, bodily based, interactive behavior, namely *parental embodied mentalizing* (PEM). The purpose of the current research was twofold: (1) to establish the reliability and validity of the PEM coding system; and (2) to evaluate whether such measurement predicts infant and child cognitive and socio-emotional functioning. Assessing 200 mother–infant dyads at 6 months using the coding of PEM proved both reliable and valid, including predicting child attachment security at 15 and 36 months, and language abilities, academic skills, behavior problems, and social competence at 54 months, in many cases even after taking into consideration traditional measures of parenting, namely maternal sensitivity. Conceptual, empirical, and clinical implications are discussed.

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Introduction

It is through my body that I understand people.

– Merleau-Ponty (1962, p. 186)

Students of child development have long sought to illuminate whether and how parent–infant relational processes shape human development. Toward this end, much attention has been devoted over the past two decades to *parental mentalizing* – the parent's ability to envision the child's mental states (such as desires, thoughts, or wishes) and to *conceive* of the child as a psychological agent whose behavior and actions are motivated by these mental states (e.g., Fonagy & Target, 1997; Shai & Belsky, 2011a; Slade, 2005). A mentalizing parent appreciates that the child's mind is separate and that both parties' minds and actions reciprocally influence one another (Slade, Grienenberger, Bernbach, Levy, & Locker, 2005).

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Developmentalists studying mentalizing theorize that it underlies a parent's ability to respond openly and sensitively to the child's emotional needs, and thereby regulate development, including attachment security. In terms of Belsky's (1984, Belsky & Jaffee, 2006) model of the determinants of parenting, mentalizing can thus be conceptualized as a characteristic of the parent that influences the quality of parenting and ultimately the child's development. Here we (1) introduce a new, *nonverbal* means of measuring parental mentalizing during the course of parent–infant interaction; (2) examine its association with a variety of factors conceptualized as determinants of parenting (e.g., parental education, marital status); and (3) evaluate the extent to which it predicts a variety of features of child functioning just before the transition to school, drawing on data from the NICHD Study of Early Child Care and Youth Development (NICHD Early Child Care Network, 2005).¹ With regard to the last goal outlined, the issue we specifically address is whether this new, nonverbal approach to measuring parental mentalizing adds prediction of child functioning *over and above* that of a well-established measure of maternal sensitivity.

Assessing parental mentalizing

Aiming to capture parents' capacity to envision the child in terms of mental states – what we refer here as parental mentalizing – researchers have developed three main measures, each pertaining to different aspects of parental mentalizing. Despite having unique properties, each operationalization of mentalizing relies exclusively on what parents *say* to the child during the course of their interactions or about the child when interviewed. The first measure, *parental reflective functioning* (PRF), refers to parents' capacity to (1) envision and make sense of their own and their child's mental states (i.e., intentions, feelings, thoughts, desires, and beliefs); (2) appreciate reciprocally influential, dyadic processes; and (c) anticipate one's own or another's actions (Slade, 2007). Measurement of PRF is based on what parents say during the parental development interview (PDI; Phelps, Belsky, & Crnic, 1998; Slade, Aber, Berger, Bresgi, & Kaplan, 2004). Recently, a questionnaire measuring PRF has been developed and is showing promising results (e.g., Rutherford, Goldberg, Luyten, Bridgett, & Mayes, 2013).

The second measure – of *insightfulness* – also pertains to parents' "capacity to consider the motives underlying their children's behaviors and emotional experiences in a complete, positive, and child-focused manner while taking into consideration the child's perspectives" (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002, p. 534). Once again, parents' verbal responses during the course of an interview are used to operationalize insightfulness, although this time parents reflect on their child's thoughts and behavior while reviewing a video recording of their parent–child interaction.

The third measure – of *mind-mindedness* (MM) – refers to the parent's proclivity to treat the child as an individual with a mind, rather than merely as an entity with physical needs that must be met (Meins, 1999). The assessment of MM takes into account the accuracy of parental interpretation of the infant's mental states; thus, mind-related comments are classified as either appropriate or nonattuned to the child's current state, such that the parent's mentalizing capacity is based, at least partially, on the degree to which the parental response meets the child's current state (Meins, Fernyhough, Arnott, Turner, & Leekam, 2011; Meins et al., 2003, 2012). MM differs from

insightfulness and PRF in that its assessment is based on comments made by the parent *during the course of ongoing mother–infant interactions* that reference the infant’s putative internal state, thereby affording “online” assessment of parental mentalizing.

Effects of mentalizing

Parental mentalizing is presumed to shape parenting: “The parent’s capacity to observe the moment to moment changes in the child’s mental state ... lies at the root of sensitive caregiving” (Fonagy & Target, 1997, p. 691; see also; Meins, 1999 and Slade, 2002). In light of theory and evidence that maternal sensitivity influences the development of attachment security (for review, see Belsky & Fearon, 2008), it should not be surprising that so does parental mentalizing (Arnott & Meins, 2007; Lundy, 2003; Meins, Fernyhough, Fradley, & Tuckey, 2001; Slade et al., 2005). In fact, in some cases it does so over and above traditional measures of maternal care, including of maternal sensitivity (Kelly, Slade, & Grienberger, 2005; Koren-Karie et al., 2002; Laranjo, Bernier, & Meins, 2008; Meins et al., 2001). But just like maternal sensitivity, it is not just attachment security that mentalizing predicts. Evidence indicates that children whose mothers evince greater mentalizing capacities themselves experience less psychological stress, greater physiological regulatory abilities, better peer relations, reduced likelihood of conduct problems, and reduced risk of psychopathology (Gottman, Katz, & Hooven, 1996; Ha, Sharp, & Goodyer, 2011; Katz & Windecker-Nelson, 2004; Sharp, Fonagy, & Goodyer, 2006).

Limitations of current approaches to mentalizing

The research just summarized clearly indicates that available approaches to measuring mentalizing are valid. But this is not to say they are without limits, both in terms of conceptualizing, and consequently, measuring, this important developmental construct. It is our contention that all three approaches highlighted earlier afford a limited account of how preverbal infants’ experience their relationship with their parents and of how parental mentalizing comes to affect child development. Current approaches also fail to consider sufficiently the bidirectional, reciprocal nature of parental mentalizing and child behavior. Finally, mentalizing, as currently assessed generally fails to consider how, during parent–infant interaction, mentalizing capacities are linked to observed behavior. In light of these claims, the work presented herein advances an additional approach to measuring mentalizing – parental embodied mentalizing (PEM; Shai & Belsky, 2011a) – one that addresses these limitations. PEM can be considered as the nonverbal dance – body-based exchanges – that the parent and the infant engage in during the course of social interaction. Before delineating the PEM approach in detail, we address how it addresses each of the limitations of current approaches already highlighted.

To begin with, we need to note, perhaps surprisingly, that all the aforementioned mentalizing assessments (i.e., reflective functioning, MM, or insightfulness) are based on the *semantic content of verbal behavior* – even in the case of nonverbal infants. But as Gallese (2006, p. 16, italics added) insightfully observed:

Social cognition is not only “social metacognition”, that is, explicitly thinking about the contents of someone else’s mind by means of abstract representations. There is also an *experiential* dimension of interpersonal relationships, which enables a direct grasping of the sense of the *actions* performed by others, and of the emotions, and *sensations* they experience. This dimension of social cognition is *embodied* in that it mediates between the multimodal experiential knowledge we hold of our lived body and the experience we make of others.

In other words, because current approaches assessing mentalizing are based on language and, in the case of interviews, necessitate explicit reflection and abstract mental representations, they would seem limited in their ability to illuminate *how* this psychological capacity of parents – manifested in spoken language – actually shapes the mind of the *preverbal* infant, as it is theorized to do (e.g., Fonagy & Target, 1997; Slade, 2005). Thus, current approaches fall short in explaining how parental mentalizing is *experienced* by the preverbal infant so as to affect its development (Shai & Belsky, 2011a). This analysis leads to the claim that more attention must be paid in mentalizing research to the infant’s perspective when engaged in social interaction; and this claim leads to belief that more attention must be paid, especially in the case of preverbal infants, to nonverbal interactive processes.

There is also a need to appreciate the apparent inconsistency between the concept of mentalizing and its measurement. Slade (2009, p. 11) states that “mentalization is not simply unidirectional but also rather an inherently, reciprocal, dynamic, and mutually rewarding process.” After all, without such consideration, how does one come to see the infant as someone with a mind? Nevertheless, two of the three current approaches to measuring parental mentalizing, insightfulness and PRF, fail to take into account the infant’s behavior or how the mother modifies her behavior in response to the infant’s actions. Consider, for example, the way PRF is evaluated; when a mother is able to demonstrate reflectiveness regarding her mind or that of her infant *in an interview*, she is rated high on mentalizing. In consequence, the infant’s behavior and mental world are present only in a mediated form, through the mother’s eyes and mind, thereby being vulnerable to biased and inaccurate interpretations. The infant, as a separate subjective being, is absent from such parental-mentalizing measurements, affording them an essentially individualistic perspective (de Jaegher & Di Paolo, 2007).

The final limitation to be considered pertains to the fact that verbal assessments of parental mentalizing give insufficient attention to its impact on behavior. Perhaps the best evidence of this comes from the underappreciated observation that individuals with antisocial personality disorder and psychopathy do *not* exhibit significant deficits in mentalizing, even though these attributes undermine the supportiveness of care provided to the child (Belsky & Jaffee, 2006). The deficits these individuals have are related more to their lack of concern about the impact on potential victims than the inability to take a victim perspective (Decety, Chen, Harenski, & Kiehl, 2013; Dolan & Fullam, 2004), and to the limited generalizability to complex interpersonal situations (Bateman & Fonagy, 2006). Despite being pivotal to consider how mentalizing impacts behavior, current measures do not capture this ecological, real-life value of mentalizing, and more specifically, do not evaluate parental mentalizing in terms of the parent’s ability to change her behavior as a result of the mental state the infant is exhibiting nonverbally.

Note that mentalizing does not imply being able to read the minds of others. Instead, advanced mentalizing involves the acknowledgment of the opacity of minds and thus the fundamental impossibility of knowing the mental states of others with certainty, resulting in understanding misunderstandings (Bateman & Fonagy, 2012). Accordingly, people high in mentalizing are speculated to be more likely to repair interactive repairs (Benjamin, 2003; Skowron, Kozlowski, & Pincus, 2010; Tronick, 1989) as they are able to appreciate that their own mental states might conflict with those of the other, and thus try modifying the interactive process. Unfortunately, what we believe to be a central component of mentalizing – the parent’s ability to amend interactive ruptures – is not captured in existing measurements of parental mentalizing.

In light of the above, the central question that arises, and which this work addresses, is whether the parent’s ability to take the child’s perspective and appreciate him or her as a psychological agent can be systematically assessed solely through reliance on verbal, reflective procedures. We think not and thus have developed a measurement approach that relies exclusively on nonverbal behavior – that is, movement – during mother–infant interaction. In this report, we describe it and provide the first evidence documenting its validity. Such a focus is consistent with the views of mentalizing theorists who conceptualize mentalizing as a multifaceted, psychological capacity, one that has verbal and nonverbal, symbolic and behavioral, as well as implicit and explicit aspects (e.g., Fonagy & Luyten, 2009; Slade, 2005), in which “the caregiver’s recognition of the child’s intentional stance ... is communicated nonverbally, beginning at birth” (Fonagy & Target, 1997, p. 682).

Beyond words

Central to PEM is the theoretical claim that the movement of the entire body conveys information about the contents of our minds. For this reason, PEM focuses on analysis of the parent’s and the infant’s bodily movements during social interaction, that is, movements of the entire body and all its parts, including limbs, torso, *and* head. Such an approach not only complements, then, the three current, verbally based, approaches to measuring parental mentalizing, but also the “head-centric” focus – on head, gaze, or vocal exchanges – of other strategies for characterizing parent–infant interaction that have proven developmentally informative (see Beebe, 2000; Beebe et al., 2011; Boone & Cunningham, 1998; Gergely & Watson, 1996; Kaye & Fogel, 1980).

The empirical dominance of head-centric approaches seems limited in light of psychological and neuroscientific work showing that kinesthetic patterns consistently convey distinct mental states (Atkinson, Tunstall, & Dittrich, 2007; Clarke, Bradshaw, Field, Hampson, & Rose, 2005; Crane & Gross, 2007; de Gelder et al., 2010; Dittrich, Troscianko, Lea, & Morgan, 1996). In fact, it is well established that certain movement qualities are associated with the expression and interpretation of specific emotions. Thus, movements that convey joy, sadness, or anger vary in their velocity, acceleration, and displacement (Boone & Cunningham, 1998; Hertenstein, Holmes, McCullough, & Keltner, 2009; Pollick, Paterson, Bruderlin, & Sanford, 2001). Variation in such movement parameters predict the ability of observers to distinguish between types of emotional expression (Sawada, Suda, & Ishii, 2003). Moreover, neuroimaging studies show that neural networks involved in emotional processing of facial expressions play an

important role in recognizing whole-body expressions of emotion – even when the face is completely blurred (for a review, see de Gelder et al., 2010).

Importantly, studies of infants (Stack & Muir, 1992), children (Boone & Cunningham, 1998), and adults (Montepare, Goldstein, & Clausen, 1987) from a variety of cultures (Hertenstein et al., 2009) make clear that they are sensitive to specific qualities of movement as reflections of specific emotions. Just as importantly, there is evidence that patterns of infant bodily movements influence parent–infant interactions, even independent of head-centric communicative ones such as facial expressions (e.g., Fraiberg, 1979; Stack & Muir, 1992).

In light of these observations and in accordance with Stern's (1985, 2010) notion of vitality forms, the assessment of PEM as outlined herein considers not so much *what*, but rather *how* the movements of one party impact those of the other. Presumably, such a focus can illuminate the interface between the affective and cognitive style of actions within the realm of relational experience (Di Cesare, Di Dio, Marchi, & Rizzolatti, 2015; Di Cesare et al., 2013; Shai & Belsky, 2011a; Shai & Fonagy, 2014). Indeed, the coding of PEM draws on dance theory and movement analysis paradigms (Kestenberg-Amighi, Loman, Lewis, & Sossin, 1999; Laban, 1960; Tortora, 2006), so that movements of both the parent and the infant are examined closely in terms of the *movement patterns* that are displayed (i.e., tempo, use of space, direction of movement in space, muscle tone, and pacing of movement) and the degree to which the parent is able to infer the infant's mental states from movement to adjust her own movement accordingly (Shai, 2010; Shai & Belsky, 2011a, 2011b; Shai & Fonagy, 2014).

Importantly, because the assessment of PEM focuses on dynamic communicative body movements, other forms of nonverbal communication, such as gaze patterns of facial expressions, are excluded from the PEM coding scheme. As stated earlier, previous work has successfully established the usefulness of investigating facial and vocal patterns to shed light on the parent–infant relationship (e.g., Beebe et al., 2011; Malloch, 1999). The aim of the current undertaking is to evaluate whether whole-body movement – as a distinct communicative modality – conveys meaningful information about mental states and interpersonal interactive processes. Note that as adults we rely heavily on facial expressions and on vocal nuances to infer about the mental states of others and to modify our own behavior accordingly. A coding system that combines these very different communicative modalities of body, voice, and face might jeopardize the coders' ability to distinguish communicative signals coming from these different modalities, especially if these are contradictory, and put at risk the possibility of scrutinizing the specific role the whole body plays in the parent–infant dance. Noteworthy in this regard is neuroscientific evidence showing that the brain processes affective information coming from the face and the body differently and somewhat independently (Aviezer, Trope, & Todorov, 2012; Gliga & Dehaene-Lambertz, 2005; Grèzes, Pichon, & de Gelder, 2007; Kret, Pichon, Grèzes, & de Gelder, 2011; Pichon, de Gelder, & Grèzes, 2009; Thierry et al., 2006).

Although resonating with some important concepts such as attunement (Stern, 1985) or maternal sensitivity (de Wolff & van Ijzendoorn, 1997), PEM specifically taps into parents' ability to recognize and respond to the infant's mental states from the child's movement. Thus, the construct and the measurement of PEM do not attempt to capture parental ability to respond sensitively and in an attuned fashion to all of the infant's

needs and states, such as activity, arousal levels, or physical needs. Instead, the assessment of PEM seeks to capture only those interactive exchanges that involve the infant's mental states, namely being supported and held psychically, encouraged to explore, being aided in discovering and maintaining boundaries of the self, and ensuring smooth transitions between experiences and states of being.

In terms of assessing parental mentalizing from a dyadic perspective, note that when coding PEM, the unit of analysis is the dyad; rather than being assessed separately, both the parent and infant's bodily movements – in relation to one another – become the targets of measurement. Specifically, and as shall be seen, the unit of analysis is an embodied communicative chain, a micro embodied narrative, where the focus is not so much on who did what, but on how one responded to the other. This approach affords a truly dyadic and relational approach, where the meaning of one's actions is evaluated only in relation to those of another.

Noteworthy is that this dyadic approach assesses the mother's capacity to mentalize the infant and to modify her movements accordingly. Thus, the PEM coding scheme affords an assessment of a *parental* capacity rather than of a *dyadic* quality, which is captured effectively by other measurements such as synchrony (Feldman, 2012) or attunement (Stern, 1985). Moreover, such concepts seem to concentrate on the degree to which the interactive dance is mutual, enjoyable, or smooth. The focus when assessing PEM, in contrast, is less on how smooth the dance was, and more on how quickly the parent is able to repair the dance once some toes have been stepped on.

This leads to the third limitation current measures of parental mentalizing have and which the assessment of PEM addresses: the necessity to evaluate the impact of mentalizing on behavior. We attest that mentalizing cannot truly be assessed separately or while overlooking its impact on behavior. As a consequence, a parent's ability to repair dyadic miscoordination, or ruptures, is weighed heavily when measuring PEM. Specifically, the assessment of PEM, at least when it concerns differentiating between either very high or very low PEM capacities, centers on the parent's ability to *repair* interactive, dyadic ruptures. It is true that all parents do not always or automatically know what needs or desires the infant is expressing; but those with high PEM capabilities prove capable of modifying their own kinesthetic patterns in response to their failures so that they respond more accurately to the infant's nonverbally manifested mental state. In contrast, parents with poor PEM capabilities are less likely to make appropriate kinesthetic modifications and fail to detect or misinterpret the infant's kinesthetically manifested mental states, resulting in responding to them in ways that contradict the infant's mental state.

Current study

The aim of the current study is to determine (1) whether PEM can be assessed reliably during the course of parent–infant interactions – in which the sound is turned off – by trained coders who focus on bodily movements, but not the head; and (2) whether PEM assessments prove valid in terms of being related in anticipated ways to (a) hypothesized determinants of parenting, including maternal age, education, socioeconomic status (SES), stress, marital status, and sensitive-responsive parenting, but not infant

birth order and temperament; and (b) developmental sequelae, especially once maternal sensitivity is taken into account.

The predicted associations between PEM and selected determinants of parenting are based on conceptual and empirical data showing that the more a mother experiences being supported (marital status, SES, stress), and the more she is engaged in parenting (age, education), the more sensitive and mind-minded she will be to her child's emotional needs (Meins et al., 2011). In contrast, and based on data suggesting that mentalizing is more of a trait than a state (Arnott & Meins, 2008; Fonagy, Steele, Steele, Moran, & Higgitt, 1991), we predict that PEM is less influenced by the mother's prior experience with other children (i.e., birth order). Since PEM coding essentially focuses the mother's ability to adapt herself to the infant's mental states, no matter what their valence or intensity, we hypothesize that it would be less susceptible to the child's temperament.

With regard to the latter predictions, we specifically target diverse "outcome" measurements made in infancy (i.e., attachment security) and around the transition to school, with the latter focused on problematic functioning (e.g., internalizing/externalizing problems), behavioral competencies (e.g., social skills, peer relations), and cognitive performance (i.e., language ability, academic skills). We cast this wide a net when it comes to evaluating the predictive power of PEM because theory and evidence indicate that processes of parent-child interaction prove related to all these aspects of development, most notably in the data set that we draw upon (NICHD Early Child Care Research Network, 1997). Specifically, we hypothesize that mothers rating higher on PEM will have children who develop more competently, beginning in infancy and into childhood, and that this will be the case, at least in some cases, even after taking into consideration maternal sensitivity.

Method

Participants

Participants were 200 selected mother-infant dyads enrolled in the NICHD SECCYD; the NICHD SECCYD included 1,364 families reflecting the demographic diversity (economic, educational, and ethnic) of the catchment area at each site in the USA (for full details of the sample, see NICHD ECCRN, 2005). The sample of the current work was selected from among 1,168 mother-infant dyads that participated in videotaped mother-infant interactions at both 6 months and 15 months, and the Strange Situation at 15 months. From the 1,168 dyads meeting these multiple criteria, 200 *random* selections were carried out so that we could implement a quasi-experimental design involving an equal number of children (i.e., 50) previously classified as secure, avoidant, resistant, or disorganized in their 15-month attachment to their mother.

As Table 1 shows, these strategically sampled dyads included mothers who averaged in their late 20s in terms of age, had some college education, tended to be married or otherwise partnered, had incomes that were far above the poverty level, and had verbal IQs in the general population range. Almost half of the infants were girls and first-born. When the 200 randomly selected cases included in this report were compared to the remaining 968 cases, no significant differences emerged with regard to any of the measurements just mentioned.

Table 1. Demographic and background characteristics of analysis and comparison sample.

Variable	NICHD sample			Analysis sample			Statistic	p-Value
	N	M	SD	N	M	SD		
Child's sex	966			200			$\chi^2_{(1)} = 0.03$	0.87
Marital status	965			200			$\chi^2_{(1)} = 3.92$	0.69
Maternal age	966	28.45	5.51	200	28.9	5.62	$t_{(1164)} = -0.45$	0.29
Education	919	14.4	2.51	199	14.48	2.13	$t_{(1116)} = -0.08$	0.67
ITN ratio	958	3.6	3.19	200	3.57	2.95	$t_{(1156)} = 0.34$	0.89
Verbal IQ	905	99.24	18.07	192	100.39	18.58	$t_{(1095)} = -1.15$	0.43
Birth order	966	1.83	0.93	200	1.82	0.88	$t_{(1164)} = -0.01$	0.93

Measures

Parents and children participating in the NICHD SECCYD were assessed on numerous measures throughout the course of the study. We first report the measurements used to select the sample of 200 dyads (attachment security classification and Home Observation for Measurement of the Environment Inventory (HOME) maternal sensitivity), followed by a detailed account of the newly developed coding system of PEM, including its interrater reliability analyses. Next, we delineate the background variables conceptualized as potential determinants of parenting. Finally, the developmental outcomes examined in this work are delineated. With the exception of the measurements derived from the new coding system, additional details about all data collection procedures, psychometric properties of the instruments, and descriptions of how composites were derived and constructed can be found in the study's *Manuals of Operation and Instrument Documentation* (<http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/233>).

Sample selection measures

As noted, the strategic selection of the 200 dyads was based on two separate measurements: 15-month attachment and HOME maternal sensitivity.

HOME maternal sensitivity. HOME (Caldwell & Bradley, 1984) combines a semi-structured interview conducted in the child's home with an observational component, thereby enabling the rating of maternal support, availability, and stimulation. Following the NICHD ECCRN (1997) procedure, a composite HOME sensitivity score assessed at 6 months was computed based on measures of positive maternal involvement (e.g., "parent's voice conveys positive feelings towards the child"; "parent caresses or kisses child at least once") and lack of negativity (e.g., "parent does not shout at child"; "parent is not hostile"). Previous extensive studies (see NICHD ECCRN, 1997) have found HOME maternal sensitivity (described above) to be the most robust predictor of children's development in the NICHD study, and thus was selected to assess maternal sensitivity in the current inquiry. Moreover, aiming to capture the longitudinal quality of maternal care, a composite of the mean HOME maternal sensitivity at 6 and 15 months was used in the current report.

PEM measure. The PEM coding system was developed for the purposes of the current study. Using the PEM coding system does not require any particular skills or experience. Learning and using the measurement of PEM involves undergoing a PEM training course and a reliability process led by the first author. The training takes place over four days,

during which the PEM coding scheme is studied and practiced. The training seminar also includes lengthy discussions focusing on applying PEM in research and clinical practice. Following the seminar, there is a series of five practice coding videos, on which the trainee receives close supervision and guidance. Thereafter, the trainee needs to complete independent coding of PEM on 10 additional videos and achieve an interrater reliability of 80% or more with the first author.²

The new measure of mentalizing was used on the first 10 min of the home-based videotapes of the dyads. Importantly, when PEM was coded, the sound was turned off so that the trained observers had only visual information on which to base their measurements. As aforementioned, one of the goals of the current investigation is to explore the unique role of the whole-body dynamic movement within the parent–infant exchange and to move beyond the head-centric scientific and cultural bias (Shai & Belsky, 2011a); therefore, verbal behavior, gaze patterns, and facial expressions are excluded from consideration. Coders are trained to direct their attention to the participants' bodies instead of faces, and videos are observed on mute mode. The recordings run at normal speed, although frequent pausing and frame-by-frame mode view are necessary for careful consideration of the interactive process.

Coding PEM proceeds in four stages. The first task is to identify the occurrence of PEM-related interactions. The second requires the coder to record a series of movement qualities of each PEM exchange so that a quality rating can be made of the overall interactive episode, with a particular emphasis on if and how disruptions of the “interactive dance” are mended. These separate ratings then serve as the basis for a more global PEM evaluation, which is the measurement subject to analysis in this report (see [Appendix](#) for a summary of the behaviors coders were trained to identify and evaluate).

Stage 1: identifying embodied circles of communication (ECC). This first stage of coding involves identifying the onset and termination time of ECC sequences, which are the analysis unit of the PEM system. An ECC is a nonverbal, movement-based, interactive communicative exchange between the parent and the infant, and can be thought of as a micro embodied narrative. Each ECC includes at least three consecutive bodily based action–reaction sequences. An ECC can be regarded as a body-based conversation, in which one party expresses kinesthetically her or his mental states, and the other party responds kinesthetically to these manifestations of mental states.

An example of an ECC is (1) the mother presents the infant with a rattle, using rapid and spread-out movements, and brings it very close to the infant's chest; (2) the infant moves back and shrinks his or her body toward its center; (3) the mother slows her movements' tempo, reduces their range, and withdraws the toy slightly away from the infant's chest; and (4) the infant reaches her hand out toward the rattle and moves her torso forward toward the object.

Note that not all interactive behaviors are coded; the PEM coding process focuses on only those communicative sequences in which the content of the mother or infant's mind is evident in the kinesthetic patterns. In the case of a playful interaction where the mother is expected to interact actively with her infant with no distraction, as in this study, most of the interaction is accounted for in terms of sequences of embodied exchanges of intentional mental states. However, moments that are not coded include

absence of interactive exchange between the parent and the infant, or functional interaction (e.g., wiping infant's face).

Identifying ECC events involves coders needing to recognize each step or turn of an ECC and thus its beginning and end. Identifying these temporal boundaries allows calculating the ECC length. Thus, we can determine the *number of ECC events* per 10-min video segment and their *mean length*, two of the PEM variables we used to establish interrater reliability.

Stage 2: delineating movement qualities. The second stage involves describing the kinesthetic sequence of each ECC in terms of movement qualities as a narrative of each segment, as exemplified above. Thus, each ECC is viewed through a kinesthetic lens so that every step comprising the ECC can be described using some, or all, of the following kinesthetic qualities: tempo, space, pathways, pacing, directionality, and tension flow. Note that while these components of each ECC are registered, they do not figure in the statistical analyses reported in the "Results" section. Essentially, considering the kinesthetic qualities serves to discipline the observer so that final, global PEM rating is based on careful observations.

Tempo refers to how fast or how slow the movement is, that is, its velocity. Sleeping states designate the low tempo extreme, whereas fast hand clapping is an example of very high tempo.

Space refers to the spatial location of the movement, when the individual's body is the point of reference. When coding PEM, a distinction is made between personal and interpersonal space. Personal space, otherwise known as kinesphere (Tortora, 2006) or orbit (Brown, Pipp, Martz, & Waring, 1993), is the personal three-dimensional sphere surrounding the body, the periphery of which is reachable by extending one's limbs, and can be thought of as a flexible bubble surrounding the person. It defines the personal boundaries of self and other (Tortora, 2006) and serves as a buffer zone surrounding the body (Knapp & Hall, 2006). Interpersonal space, on the other hand, is the interactive, changing spatial distances between two individuals in a given environment (Davis, 1975; Moore & Yamamoto, 1989; Scheflen & Ashcraft, 1976).³

Pathways. Concern goal-directed movements that cut through space and make intentional connections between the individual and an external object (Tortora, 2006). Pathways involve the imaginary line that movement creates in space, which can be straight, linear lines, as in a hand gesture drawing a triangular, or curvy, indirect, or rounded pathways, as in a hand gesture describing the movement of soap bubbles in the wind (North, 1971).

Pacing refers specifically to the velocity of alterations in movement. Pacing ranges from abrupt or jerky to gradual and sustained. In abrupt pacing, there is no clear sequence of fluent connections between movements (Davis, 1975) and is likely to produce a staccato-like sense of fragmentation and unpredictability. In gradual pacing, there is a clear sequence of fluid connection between movements that creates a sense of continuity and predictability.

Directionality concerns the growing or shrinking movement of bodily dimensions in relation to the body center and is associated with varying degrees of pleasure (Kestenberg-Amighi et al., 1999). Directionality defines the individual in relation to

his/her surrounding space (Kestenberg, 1985): growing movements create open bodily shapes as a result of moving away from the body's center, thus exposing the body to the environment; shrinking movements create closed bodily shapes as a result of moving toward the body's center, thus reducing exposure to the external world. An example of a growing movement would be extending the arms sideways to hug someone; a shrinking movement would be curling up when cold or scared.

Tension flow refers to the individual's muscular tone, and more specifically, to sequences of fluidity and restraint in the state of the muscles in various parts of the body. Tension flow involves alterations between free and bound movements (Kestenberg, 1975; Loman & Foley, 1996), reflecting the vitality and flexibility of the movement.

Stage 3: rating the quality of ECC events. Based on the careful observation and coding of kinesthetic qualities just outlined in stage 2, coders move on to rate the quality of each ECC event. An ordinal scale, with scores ranging from "very low" (1) to "very high" (9), is used to evaluate each ECC event in terms of the degree to which it reflects the parent's ability to modify his or her kinesthetic response in light of the infant's kinesthetically manifest mental state. Determining this score requires the observer to pay careful attention to (1) the ECC initiator; (2) whether the ECC was repetitive or evolved into an elaborate interactive sequence; (3) the clarity of the infant's kinesthetic mentalistic signaling; (4) the extent to which the movement was performed with the entire body, incorporating the torso and extremities in a congruent fashion, or executed only with the extremities, with the trunk and the extremities being fragmented or disjointed; and (4) the parent's ability to follow the infant's kinesthetically manifested mental state and lead it to completion without interruption.

Stage 4: rating a global PEM score. The fourth and final stage of coding PEM entails assigning a global PEM score, ranging from very low ("1") to very high ("9"). The PEM global rating is the parent's *overall*, typical, mentalizing capacity, considering all the individually rated ECC events of the dyadic interaction. As with individual ratings of each ECC, the global PEM rating reflects the degree to which the parent typically manifests – through his or her body movements – an acknowledgment of the infant's internal world and an ability to be responsive and thus modify his or her own kinesthetic patterns to better suit the infant's mental states.

Assigning a global PEM score uses the mean and the mode of the individual ECC scores as anchor points, but further consideration of elements capturing aspects of the interaction as a whole is needed in order to determine the final global score. These considerations are (1) interactive syntax – lowering a score in cases where individual ECCs receive a relatively high PEM rating, but the overall transition between one ECC to another is fast or disjointed. (2) Frequency of extremely low PEM manifestations – in cases where there is more than one ECC rated "1," the global PEM rating could not be higher than "3." (3) Dominance of premature termination of ECCs – cases where parents appear to intervene with the infant's activity before the infant shows signs of fatigue or desire to change activity. In such cases where parents seem unable to follow the infant's mental state to fruition, the global PEM score is lowered.

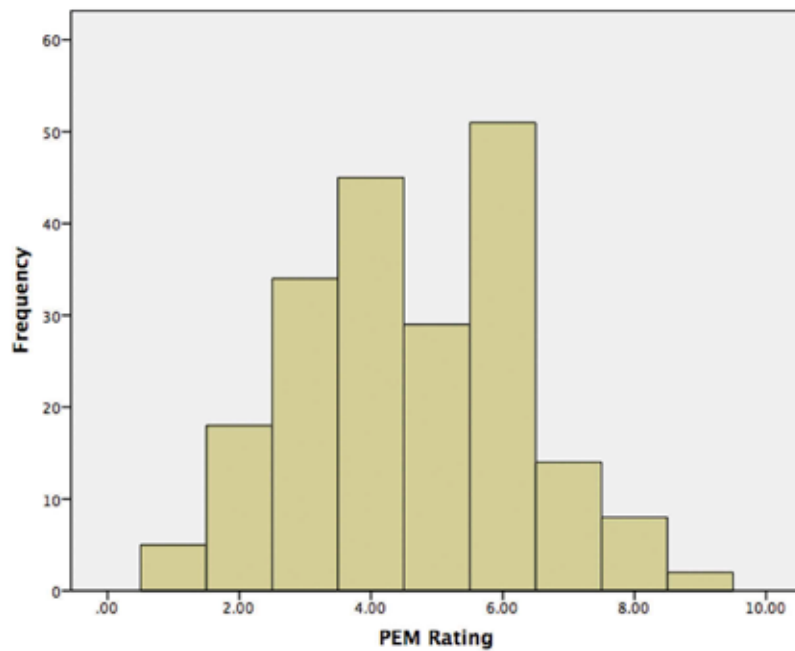


Figure 1. PEM rating distribution.

As shown in Figure 1, in the current study, PEM rating ranged between 1 and 9, with a mean of 4.63 and standard deviation of 1.72. PEM was normally distributed, with skewness of 0.06 (SE = 0.17) and kurtosis of -0.54 (SE = 0.34).

Reliability of PEM

Following extensive training with videotaped mother–infant dyads ($N = 44$) not included in the analysis sample ($N = 200$), we evaluated the inter-rater agreement (IRR) of three postgraduate coders using 44 analyses of sample tapes already scored by the first author, representing 22% of the entire research sample. Interrater reliability was calculated using a two-way random absolute agreement intraclass correlation coefficient model (Shrout & Fleiss, 1979). Details of the results of the reliability assessments are presented in Table 2.

Firstly, we examined whether coders identified the same *number of ECC events per tape* (44 tapes altogether) as the first author. Correlations ranged from 0.77 to 0.97 ($p < 0.01$), with a mean of 0.92. Examining correspondence in the *length of ECC events* between the mean ECC length per tape coded by the first author and each of the three raters revealed correlations ranging between 0.96 and 0.97, mean 0.97 ($p < 0.001$).

Table 2. Characteristics of interrater reliability tests.

Variable	Statistic	N	Reliability score	Range
ECC frequency	ρ^2	44	0.92***	0.89–0.96
ECC length	ρ^2	44	0.97***	0.96–0.97
Global PEM	ρ^2	44	0.87**	0.84–0.90

** $p < 0.01$; *** $p < 0.001$.

Finally, significant positive correlations for the IRR for the *global PEM rating* ranged from 0.84 to 0.92 ($p < 0.01$), with a mean of $r_{(44)} = 0.87$.

Family, maternal and child determinants-of-parenting measures

Nine variables often included in studies of the determinants of parenting were selected for inclusion in this study, including family factors (SES, marital status, age), maternal measurements (verbal IQ, educational level, parenting stress, maternal sensitivity), and infant variables (temperament and birth order).

A family's SES was derived from the income-to-needs (ITN) ratio, calculated at 6 months. The ITN was created by dividing the total family income by the poverty threshold for family size. The mother's *marital status* was determined by the mother's report of the presence of a husband/partner in the home at 1 month. The mother's *age* and level of *education* in terms of years of schooling were collected at the 1-month interview. At that time, information about the infant's *birth order* (i.e., if and how many siblings the infant has) was also collected. Maternal *verbal IQ* was measured using the Peabody Picture Vocabulary (Dunn & Dunn, 1981), an individually administered test of hearing vocabulary, which includes 175 items arranged in order of increasing difficulty. *Parental stress* was assessed using the Parent Stress Index Short Form (Abidin, 1995), a well-established and researched 36-item self-report questionnaire that yields scores on the following subscales: (1) parental distress, 2) parent-child dysfunctional interaction, and (3) difficult child. As described in detail above, a mean of HOME maternal sensitivity at 6 and 15 months was used to assess maternal sensitivity. *Infant temperament* was assessed by asking mothers to complete a modified version of the Infant Temperament Questionnaire (Carey & McDevitt, 1978) at 6 months. Items were designed to capture infant approach, activity, intensity, mood, and adaptability. Calculating the mean of the nonmissing items with appropriate reflection of items created the composite measure, difficult temperament, so that higher scores consistently reflected a more "difficult" temperament.

Developmental outcomes

Six variables were selected to serve as developmental outcome measures for this report.

Attachment security. Infant-mother attachment security was assessed at 15 months using the strange situation procedure (SSP; Ainsworth, Blehar, Waters, & Wall, 1978). The SSP involves a videotaped, 21-min semi-structured laboratory paradigm involving separations and reunions of the child, the mother, and a friendly but unfamiliar female stranger. Each episode lasts three separation episodes were discontinued if the infant cried strongly for more than 20 s. The procedure was videotaped for subsequent scoring; infants were classified into one of four primary categories (secure, avoidant, or resistant, disorganized; Ainsworth et al., 1978; Main & Solomon, 1990). Classification is based on the infant's behaviors. Infants with secure attachment (B) are affected by the separation, reduce exploratory behavior, are likely to show signs of distress, and at the reunion, seek physical contact with or at least communication across a distance with the mother. Avoidant infants (A) are less affected by the separation, sometimes hardly noticing the absence of the mother; and at the reunion, either do not seek physical contact with mother and in some cases fail to acknowledge or only minimally acknowledge (with a

brief look) mother altogether. Resistant attachment behavior (C) is characterized by distress during the separation, and at the reunion, a deliberate desire for contact combined with a physical resistance of contact when achieved (Ainsworth, Bell, & Stayton, 1971). Disorganized/disoriented behaviors (D) at the reunion include overt displays of fear; contradictory behaviors or affects occurring simultaneously or sequentially; stereotypic, asymmetric, misdirected, or jerky movements; or freezing and apparent dissociation. Each SSP videotape was coded twice at a central location by two of three coders blind to all information about the children. Across all coder pairs, agreement with the five-category classification system was 83% ($\kappa = 0.69$) (NICHD ECCRN, 1997).

A modified Strange Situation procedure was used at 36 months to assess the quality of the child's attachment to the mother (Cassidy & Marvin, 1992; NICHD ECCRN, 2001). During the laboratory visit, mother and child were invited to make themselves comfortable in a room. The procedure involved 3 min of play, 3-min separation, 3-min reunion, 5-min separation, and 3 min for the second reunion. Assessments were videotaped for later coding and sent to a central site for coding according to the MacArthur Working Group on Attachment system (Cassidy & Marvin, 1992) by a team of coders blind to any other information about the study. Two coders coded information for the same child. In cases of coding discrepancies, coders discussed the classification in question until reaching a consensus code.

Internalizing and externalizing behavior problems. Behavior problems were assessed at 54 months by having teachers complete the Teacher Report Form (Achenbach, 1991). This form consists of 120 items that address a broad range of children's behavioral and emotional problems, and consists of two subscales: internalizing problems (e.g., "too fearful and anxious") and externalizing problems (e.g., "argues a lot"). For each item, respondents were asked to determine how well that item describes the child within the last two months: 0 = not true (as far as you know), 1 = somewhat or sometimes true, and 2 = very true or often true. Achenbach reports test-retest reliability of 0.89 and stability of 0.71 over two years (NICHD ECCRN, 2003).

Social competence with peers. We assessed this ability at 54 months using a modified teacher-report version of the California Preschool Social Competency Scale (CPSCS; Levine, Elzey, & Lewis, 1969), including four additional items added by the NICHD ECCRN to reflect the child's cooperative play ("Cooperates in games and activities with other children, accepting their ideas"), ability to follow rules ("Follows the rules when playing games with others"), empathy ("When other children are distressed or upset, is concerned and offers help or comfort"), and aggression ("Teases, threatens, argues with, annoys, or bosses other children"). Each item contains four descriptive statements (numbered 1–4) ordered by increasing levels of competence relative to the behavior being measured, with higher scores indicating greater social competency. A composite variable of social competence with peers using 10 items from the modified CPSCS had moderate internal reliability (Cronbach's $\alpha = 0.75$).

Social skills. This capacity was measured in first grade using the teacher-completed Social Skills Questionnaire from the Social Skills Rating System (Gresham & Elliott, 1990).

This instrument is composed of 38 items describing child behavior, each rated on a three-point scale reflecting how often the child exhibited each behavior. Items are grouped into four areas: cooperation (e.g., “Keeps room neat and clean without being reminded”), assertion (e.g., “Makes friends easily”), responsibility (e.g., “Asks permission before using someone else’s property”), and self-control (e.g., “Controls temper when arguing with other children”). The total score used in this report represents the sum of all 38 items, with higher scores reflecting higher levels of perceived social skills (□ range from 0.86 to 0.94) (NICHD ECCRN, 2005).

Language development. Language competence was assessed using the Preschool Language Scale (Zimmerman, Steiner, & Pond, 1979). It measures a range of language behaviors including vocabulary, morphology, syntax, and integrative thinking that are grouped into two subscales: auditory comprehension and expressive language. The test is standardized having a mean of 100 and standard deviation of 15, with age range of 2 weeks to 6 years, 11 months.

Academic skills. Following the NICHD ECCRN (2002) study, the score for (pre)academic skills is a composite score from two subtests of the Woodcock Johnson Achievement and Cognitive Batteries (Woodcock, Johnson, & Mather, 1990). The Letter-Word Identification test measures skills at identifying letters and words. Standard scores range from 63 to 180, with values above 100 indicating that the raw score was above the mean score of children on whom the test was standardized. The Applied Problems test measures skill in analyzing and solving practical problems in mathematics. Standard scores range from 41 to 157, with values above 100 indicating that the raw score was above the mean score of the standardization sample. Internal consistencies for 4 year olds are 0.92 and 0.91 for the two scales, respectively. The composite score was formed by averaging the standardized scores on the two subtests.

Results

Handling missing data

Overall, 18.1% of the data were missing. Little’s Missing Completely At Random (1988) test indicated that the data were missing completely at random, $\chi^2_{(23033)} = 1287.38$, $p = 1.00$. Accordingly, we employed Rubin’s (2009) multiple imputation procedure to handle missing data.

Family, maternal and child determinants of parenting related to PEM

In an initial effort to validate PEM, we examined its association with maternal factors: maternal SES, marital status (0 = not married, 1 = married), age, verbal IQ, education, birth order, parenting stress, maternal sensitivity, and with infant characteristics, namely temperament. We predicted that a higher PEM rating would be linked with the mothers’ tendency to belong to a higher SES, to be married, older, more educated, with a higher verbal IQ and maternal sensitivity scores, and a lower parenting stress rating. Furthermore, we expected that the PEM rating would be unrelated to birth order or to

Table 3. Zero-order standardized coefficients for associations between PEM and maternal and infant variables.

	1	2	3	4	5	6	7	8	9
1 PEM	–								
2 SES	0.13*	–							
3 Marital status	0.15*	–0.37***	–						
4 Age	0.31***	0.45***	0.30***	–					
5 Education	0.16*	0.46***	–0.25**	0.56***	–				
6 IQ	0.26**	0.33***	–0.19*	0.50***	0.56***	–			
7 Stress	–0.12	0.02	–0.04	–0.17	–0.13	–0.03	–		
8 Birth order	–0.03	–0.25**	–0.11	0.25**	–0.08	–0.01	–0.06	–	
9 Sensitivity	0.39***	0.33***	–0.42***	0.40***	0.46***	0.43***	–0.17*	0.08	–
10 Temperament	–0.01	–0.04	–0.12	0.09	–0.12	–0.15	0.11	0.00	–0.09

$N = 200$. For correlations involving maternal verbal IQ, $N = 199$.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

infant temperament. As Table 3 illustrates, all of the correlational findings but one confirmed these predictions; PEM rating was unrelated to parenting stress.

PEM and infant attachment security

To examine whether PEM was associated with the infants' likelihood of being classified as securely attached at 15 and 36 months, we conducted two multinomial regression analyses. More specifically, security was treated as the referent with respect to insecure-avoidance, insecure-resistance, and disorganized. Results revealed that a higher PEM rating predicted reduced likelihood of 15-month insecure-avoidance [$b = -0.28$, $p = 0.031$, $Exp(b) = 0.76$] and disorganized [$b = -0.52$, $p < 0.001$, $Exp(b) = 0.59$] but not insecure-resistance [$b = -0.10$, $p = 0.44$, $Exp(b) = 0.91$]. PEM rating predicted reduced likelihood of all insecure styles at 36-month [insecure-avoidance, $b = -0.40$, $p < 0.001$, $Exp(b) = 0.67$, insecure-resistance, $b = -0.38$, $p = 0.002$, $Exp(b) = 0.68$, and disorganized, $b = -0.99$, $p < 0.001$, $Exp(b) = 0.37$]. Results remained significant even after controlling for maternal sensitivity.

PEM and competent functioning at 54 months

The final set of analyses evaluated whether the PEM rating predicted children's functioning at age 54 months while taking into account maternal sensitivity. Toward this end, we conducted a series of multiple regression analyses in which PEM rating and maternal sensitivity served as predictors. Standardized coefficients are presented in Table 4.

Results revealed that a higher PEM rating forecast advanced language skills and better academic performance, even when controlling for maternal sensitivity. With regard to behavior problems, a higher PEM rating, but not greater maternal sensitivity, forecasts fewer internalizing problems as well as externalizing problems. Higher maternal sensitivity, after controlling for PEM, was related with more internalizing and externalizing problems. In terms of social functioning, higher PEM rating was associated with enhanced social skills and peer competence.

Table 4. Standardized coefficients for socio-emotional and cognitive functioning by PEM and maternal sensitivity.

	Language	Academic	Internalizing	Externalizing	Social skills	Competence
PEM	0.17*	0.14*	-0.23**	-0.19*	0.15*	0.23**
Maternal sensitivity	0.29***	0.21***	0.16*	0.16*	0.07	0.06
R ² (%)	14.2	8.2	5.7	4.2	3.2	6.3

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Discussion

The current study was designed to extend the conceptualization and measurement of parental mentalizing beyond the linguistic, declarative domain to include nonverbal, body-based aspects of this parental capacity – “parental *embodied* mentalizing.” Our goal was to evaluate whether this new way of conceptualizing mentalizing could yield reliable measurement; whether a global rating based on the careful micro and molar scoring of parent–infant kinesthetic exchanges would covary with commonly studied determinants of parenting in a manner expected; and whether the global PEM rating would predict child functioning in infancy and just before the transition to school, with especial concern for whether such prediction would obtain after taking into account maternal sensitivity.

Results reveal that parental mentalizing can indeed be assessed reliably during the course of mother–infant interactions by trained coders focusing solely on the parent–infant movements, without any consideration of the verbal or tonality unfolding in the interactive exchange. Additionally, as hypothesized, the data indicate that PEM is associated – in an expected manner – with theoretically relevant constructs conceptualized as determinants of parenting, such as maternal education, IQ, age, and SES, as well as with maternal sensitivity, but not with infant temperament or birth order. Finally, and perhaps most importantly, infants of mothers displaying greater PEM during a mother–infant free-play at 6 months (1) were more likely to be classified as securely attached at both 15 and 36 months; and at 54 months evinced (2) greater socio-emotional well-being (i.e., greater peer and social competence, fewer behavior problems) and cognitive functioning (i.e., advanced language comprehension and expressive abilities, and academic skills). In most cases, these predictions held even after accounting for maternal sensitivity, clearly indicating that PEM “adds value” from a measurement perspective.

Results indicate that the quality of parent–infant interactions can be reliably assessed solely on the basis of the nonverbal way the parent’s and infant’s bodies move and interact on the embodied level, as indicators of their wishes, needs, evaluations, and expectations, rather than relying on an examination of the use of words, intonation, or eye contact. These findings highlight the importance of focusing on the nuanced dance between maternal and infant behavior, a dance that the measurement of PEM is specifically designed to capture. Just as importantly, results indicate that even though variation in PEM overlaps with variation in maternal sensitivity, it adds unique predictive power.

These results underscore that through the mother’s ability to treat and respond to her infant as a psychological agent *on an embodied interactive level* that the infant eventually

experiences the caregiver as attentive and trustworthy, scaffolding the representation of a secure attachment figure. These findings corroborate studies emphasizing the significance of moment-to-moment, nonverbal, reciprocal parent–infant interactions for the emergence of a meaningful sense of self and self-with-others, including forming attachment relationships, developing a sense of agency and effectiveness, and self-regulation (e.g., Beebe et al., 2000; Brazelton, Koslowski, & Main, 1974; Stern, 1985; Trevarthen, 1993).

Specifically, we tentatively infer that this somatic translation of the parent’s mental capacity is meaningful to the preverbal infant, who is highly sensitive to various kinesthetic stimuli. Through his or her body, the infant experiences how attentive and responsive the parent is to his or her emotional needs, thereby serving as a regulator of the infant’s emotional and somatic states. This resonates with Tronick’s mutual regulation model (Tronick, 2007; Tronick, Als, & Adamson, 1979), according to which regulation is accomplished through the operation of a communication system in which the infant communicates its regulatory status to the caregiver, who, in turn, responds to the meaning of this communication. This communication unfolds and is expressed in the totality of the infant’s and caregiver’s bio-psychological processes – subtle, nonverbal, micro-regulatory, and social-emotional processes (Fonagy, 2015; Tronick, 2007).

These early interactive, nonverbal, relational experiences, the shared meaning-making (Tronick, 1989, 2007), are considered to go beyond the infant’s attachment representations. Fonagy, Gergely, Jurist, and Target (2002) suggested that the evolutionary function of the dyadic relationship between parent and human infant goes far beyond ensuring the safety of the latter, to furthering the understanding of the nature of subjectivity and the ability to develop social intelligence, skills, and competence (e.g., Feldman, Bamberger, & Kanat-Maymon, 2013). Indeed, our results provide preliminary evidence that the infant’s experience of the mother’s embodied mentalizing carries over into childhood and expands beyond the parent–infant relationship, seeming to influence (in this observational study) the development of social skills as late as 54 months.

This association can be understood by considering that when an infant repeatedly and continuously encounters a mother who is responsive to the somatic signaling of mental states and treats the infant as a mental agent, the child’s sense of agency is fostered, as the infant experiences oneself capable of affecting the world (i.e., the mother). Unfortunately, there are cases in which a parent might ignore, misunderstand, or distort the infant’s embodied communicative signals, manifested in low PEM. According to Fonagy (2015), such repetitive and continuous violations of the interactive process are toxic because they not only teach inappropriate content but also undermine the mechanisms for the social acquisition of knowledge and the emergence of an agentive sense of self. Such violations may indeed be reflected in the child’s compromised ability to develop emotional and behavioral regulatory control, manifested in many ways, including in internalizing and externalizing problems.

While clearly requiring further inquiry, we dare to speculate that infants who experienced interactions with a mother who was insensitive or unresponsive to their mental states would gradually develop one of two embodied ways of being: (1) needing to defend against the misattuned nature of the interactive encounter, later manifesting itself in externalizing problems – movements directed outwardly, difficulty in regulating and containing emotions, and a general tendency to act outwardly, as if reenacting the

need to fend off the bombarding and overwhelming nonverbal interactions with the parent; or (2) withdrawing from the interactive space to protect themselves, later manifested in internalizing problems – the tendency to direct themselves and the mental world inwardly, thereby isolating themselves from the distorted, disappointing, or the absence of a meaningful encounter with the parent.

We further found that PEM was predictive also of children's cognitive development, namely academic and language performance at 54 months, above and beyond maternal sensitivity. These findings can be understood in two ways; one is that the parent's ability to be attentive and responsive to the infant's emotional and mental needs affords the child the safety to inquisitively explore the world. Secondly, when mentalizing, the parent demonstrates the action of symbolism – appreciating that the infant's body movements represents his or her mental world. Through experience, the infant learns what a symbolic activity is and how to implement it in additional domains of being – cognitively and linguistically.

Lastly, these findings support the important distinction that can and should be made between online, real-time assessments of parenting and offline ones. With the exception of MM (Meins et al., 2012), existing measures of parental mentalizing are *offline* measures, that is, assessed after the actual parent–infant interaction has taken place, and thus may be considered more suitable for determining the parent's reflective capacity (Oppenheim, Goldsmith, & Koren-Karie, 2004; Slade, 2005). Such assessments might fall short in fully elucidating either the parent's ability to mentalize the infant in real time while interacting with him or with her, or the infant's experience of the parent and him or herself in this relationship. PEM provides exactly this possibility, and thus could be considered a measure well-suited to measuring online mentalizing.

It is also important to consider the current findings while keeping in mind that mentalizing can involve automatic, spontaneous, and implicit or controlled, and explicit processes, each subserved by distinct patterns of neural activation (Fonagy & Luyten, 2009; Shai & Belsky, 2011b). Explicit mentalizing is typically interpreted, conscious, verbal, and reflective; it is a slow process that necessitates awareness and involves brain processing linguistic and symbolic material (Fonagy & Luyten, 2009). Implicit mentalizing, in contrast, is perceived, nonconscious, nonverbal, and unreflective; it involves much faster processing and activates older brain circuits that rely heavily on sensory information (Satpute & Lieberman, 2006).

We maintain that PEM is an implicit process that does not involve parents' controlled awareness – not when considering the process of interpreting the infant's movement as manifestations of mental states nor in the process of the parents' decision-making determining their embodied responses to their infant. The significance of this is that unlike verbal measures of parental mentalizing that tap into more controlled processes, PEM advances a more accurate evaluation of parenting behavior – one which is less biased by social desirability – because parents are unlikely to know which movements are more or less socially accepted, and even if they would, have far less control over his or her bodily movements than the words they utter.

Limitations and future research

Our results are encouraging as they begin to provide a possible, even if partial, experiential mechanism by which parents' internal representations shape infants' internal world and developmental capabilities. The results begin to suggest that whole body, interpersonal experiences, may have long-lasting effects on the child's well-being. The fact that the research's design included no effort to promote PEM means, of course, that it cannot confidently determine causal processes.

Despite the numerous advantages of using the NICHD SECCYD, one significant limitation in the context of the current investigation is that it did not include assessments of the parents' *verbal mentalizing* capacities, nor were they interviewed so that such information could be obtained. Mentalizing research would benefit from a direct comparison of the parents' embodied and verbal mentalizing capacities. Such a comparison might answer some intriguing questions. Do verbal and nonverbal mentalizing measurements co-vary or are they orthogonal? Do they differentially predict children's future functioning? Are there sensitive time windows in which the impact of one form of parental mentalizing – verbal or embodied – carries more weight in terms of predicting the child's development? It will also be important to consider *paternal* PEM capacities and examine if and how these may differ from maternal PEM patterns, and whether paternal and maternal PEM capacities differentially predict children's future development.

Although the primary purpose of this study was to evaluate the utility of analyzing nonverbal and whole-body movement to shed light on the parent–infant relationship, it would be of great interest to examine if and how the approach of PEM, and its focus on movement qualities, could be applied not only to the interactive patterns of the body but also to those of the voice. We speculate that the very same movement qualities that central to coding PEM (e.g., fast versus slow tempo or gradual versus abrupt pacing) could be applied to describe vocal patterns. Thus, future research could certainly benefit from examining the degree to which the PEM framework could be applied to other communicative modalities and further explore the degree to which human interpersonal communication, especially those of parents and infants, is based on intermodal emotional processes (Walker-Andrews, 2008).

Clinical implications

This parental mentalizing assessment presented herein seems to have enormous face validity for clinicians and might well have important implications for early intervention. In the clinical setting, PEM can be a useful diagnostic tool assessing parent–infant interactions, allowing the detection of moments of both functioning parental mentalizing, as well as lapses in mentalizing. When shared with the parent watching the recorded interaction, this information could be used to empower the parent, while also exploring why, when, and how lapses in mentalizing occurred. As in the PEM coding process, the parent and clinician can examine step by step, ECC by ECC, what the movement of one member elicited in the other, how each movement could have been perceived, (mis)interpreted, and experienced. Such an approach could help parents explore how their own views, expectations, fears, and desires color the

interpretation of their infant's movements (Underdown & Shai, 2014). This practice of PEM in the clinical setting thus allows the parent to explore what works for this unique parent–infant dyad, and equally important, what might work even better.

Conclusions and implications

On the basis of the results reported here, it seems justified to conceptualize and treat parental mentalizing as a multilayered construct that extends beyond verbal expressions and involves whole-body, nonverbal interactive processes between the parent and the infant –PEM. This approach, which extends current work on parental mentalizing, yields not only a reliable and valid measurement, but also one that relates to putative determinants and consequences of parenting in just the manner expected, including in the latter case, over and above maternal sensitivity. Thus, it appears that future research on mentalizing would benefit from extending the measurement tools beyond verbal behavior to nonverbal behavior. From a translational perspective, the current work also suggests new ways of redirecting parent–infant interactive processes when the goal is to prevent the development of problems or promote the child's well-being.

Notes

1. Although it would be ideal to compare multiple approaches to the measurement of mentalizing, the NICHD data set does not include parental mentalizing measures.
2. For a manual describing the PEM coding system in greater detail, as well as for information about training on the instrument, please contact the first author, Dana Shai, sdana@idc.ac.il
3. A further spatial distinction used when coding PEM involves three planes that refer to the orientation of movement in relation to the ground: horizontal (movement appearing side-ward), vertical (movements are directed up or down), and sagittal (movements directed forward and backward) (Bartenieff & Lewis, 1980; Kestenberg, 1975; Laban, 1960; Lamb & Watson, 1999).

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Appendix

Global PEM rating summary (“anchor points”)

Score 1

- Parent presents grave difficulty to acknowledge the infant has a mind; infant seems to be an inanimate object rather than a subjective person.
- Infant's mental state is expressed kinesthetically clearly and over an extended amount of time.
- Parent does not repair ruptures and lets own mind lead the interaction.
- Parent's movement threatens to place the infant in physical danger.

- Parent holds or moves the infant in a bizarre manner.
- There is evidence of a physical, muscular conflict between parent and infant, where the parent actively overrides the infant's mental state.

Score 3

- Benignly, the parent does not seem to keep the baby's mind in their mind.
- The parent repairs their kinesthetic response only after a substantial time and the infant's clear kinesthetic communication.
- Parental responsiveness to infant's mental states is functional or concrete.
- The infant's engagement of the parent is functional or concrete.
- Their minds seem to operate on parallel paths.

Score 5

- Parent perceives and treats the infant as a mentalistic entity.
- Basic appreciation of infant's mental state.
- The parent and the infant are connected; their minds are meeting.
- Greater ability to respond to infant's positive, rather than negative, states.
- Infant's mental states tend to be kinesthetically clear.
- Short and nonelaborate interactions.

Score 7

- Complex recognition and appreciate of infant's mental state.
- Parent acknowledges their mental state influences that of the infant's.
- When there is a rupture, there is a quick repair.
- Parent responds to both positive and negative mental states.
- Parent modifies a negative interaction into a positive one.
- Parent's mental states enrich the infant's interactive engagement.
- Parent can modify their mental state in real time – while they are executing it – when taking into account the infant's kinesthetic signaling.

Score 9

- Parent detects the infant's subtle and sophisticated mental states, which can also be conflictual and ambivalent.
- Ruptures are repaired quickly.
- The parent presents a wide range of movement qualities and ECC themes.
- The minds of both parties contribute and enrich that of the other, such that the evolving kinesthetic interaction progressively becomes more and more sophisticated and multifaceted.
- Parent is able to take a negative interaction and turn it into a positive one.

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Parental Insightfulness Is Associated With Cooperative Interactions in Families With Toddlers

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A growing body of research has highlighted the importance of mother–father–child interactions in families with toddlers, but little is known about the internal processes underlying parenting in such interactions. Dyadic studies of parent–child relationships have focused on parental insightfulness as promoting sensitive parent–child interactions, and the goal of the present study was to examine whether insightfulness would similarly be associated with cooperative triadic interactions. To address this question, we observed 77 mother–father–toddler triads in the Lausanne Trilogue Play (LTP) procedure to assess family cooperation, and the insightfulness of each parent was assessed using the Insightfulness Assessment, a video replay procedure in which parents are interviewed regarding their children’s thoughts and feelings after watching short video clips of the children. The results showed that families in which both parents were insightful had higher Family Cooperation and Coparenting scores compared to families in which only 1 parent was insightful and families in which neither parent was insightful. The implications of these findings for research on the internal processes underlying parenting in a triadic context are discussed.

Keywords: triadic interaction, insightfulness, Lausanne Trilogue Play, coparenting, family interaction

Beginning early in life, children’s development is embedded in the context of triadic family interactions (Belsky, Putnam, & Crnic, 1996; McHale, 2007; Minuchin, 1985), and a growing body of research has highlighted the importance of these interactions for children’s socioemotional development (e.g., Fivaz-Depeursinge, & Corboz-Warnery, 1999; Hayden et al., 1998; Jacobvitz, Hazen, Curran, & Hitchens, 2004; McHale, 1995). One question that has received little attention, however, involves the internal cognitive and emotional processes in parents that provide the foundation for their capacity to engage cooperatively in triadic interactions. In studies of the *dyadic* parent–child relationship, however, this question has received considerable attention (e.g., George & Solomon, 2008; Meins, 2013; Slade, 2005). In particular, Oppenheim and Koren-Karie (2002) focused on parental *insightfulness*—the capacity to see and feel things from the child’s point of view—and found that it underlies sensitive parental behavior and promotes the

development of secure child–parent attachments (Koren-Karie, Oppenheim, Dolev, Sher, & Etzion-Carasso, 2002). The goal of the present study was to examine whether parental insightfulness is similarly associated with more-optimal and cooperative triadic interactions.

Observational studies that are based on a family systems approach have argued that the cooperation, coordination, and cohesiveness of the whole family unit have an important role in shaping children’s socioemotional development (McHale, 2007). These dimensions of family interaction are expressed in the family members’ success working as a team with joy, empathy, and flexibility while maintaining appropriate roles. In this study we employed the Lausanne Trilogue Play (LTP) procedure, a measure particularly suited for families of infants and toddlers (Fivaz-Depeursinge & Corboz-Warnery, 1999), to assess family cooperation. In the LTP, father, mother, and child are instructed to “play together as a family” in four configurations: three in which two partners (e.g., father and child) engage with each other while the third person (e.g., the mother) remains a participant-observer and one in which all partners actively participate. These configurations represent all the various permutations of twosomes within the triad and provide an opportunity to examine the family triad as a whole, without reducing it to its constituent subsystems (Favez, Frascarolo, Carneiro, et al., 2006).

Four hierarchically organized interactive functions are necessary in order to establish cooperative triadic interactions (Fivaz-Depeursinge & Corboz-Warnery, 1999): (a) *participation* (all partners should be included in the interaction), (b) *organization* (partners should keep to their roles), (c) *focus* (partners should share a joint focus), and (d) *affect sharing* (partners should be emotionally in touch with each other). The more of these functions the triad fulfills, the more cooperative will family interactions be (Frascarolo, Favez, Carneiro, & Fivaz-Depeursinge, 2004). Studies

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have shown that infants as young as 4 months of age are capable of participating in triadic, and not only dyadic, interactions (Fivaz-Depeursinge, Favez, Lavanchy, De Noni, & Frascarolo, 2005). The researchers also found that past family interactions tend to guide future interactions and therefore show stability over time (Favez, Frascarolo, & Fivaz-Depeursinge, 2006). Additionally, optimal family interactions support children's socioemotional development by providing the conditions for learning turn taking, empathy, negotiation, and self-regulation (Favez et al., 2012; Fivaz-Depeursinge, Frascarolo, & Corboz-Warnery, 1996).

Although in family systems all partners influence others and are influenced by others, in families with young children parents have an important role in shaping the family's interaction. In other words, reciprocity between and among the various partners (i.e., the parents and the child) does not imply that the relationships are symmetrical (Beebe & Lachmann, 2002), because parents possess many more psychological resources than do children, and it is expected developmentally that they take into consideration their children's needs, thoughts, and feelings and not the reverse. In particular, parents' capacity to adjust their behavior and emotional reactions to the child's behavior is much greater compared to that of the young child, and therefore their input in triadic interactions has an important impact on the level of cooperation the triad can achieve.

The role of the parenting dyad in shaping triadic interactions is supported (albeit indirectly) by studies that used an "imaginary" LTP in which expecting couples "interacted" with an infant doll prior to their baby's birth. Favez, Frascarolo, and Fivaz-Depeursinge (2006) found that more "functional" prenatal alliances predicted more-cooperative actual interactions between the couples and their infants several months later, following the infants' birth. Also highlighting the role of the parental dyad, von Klitzing and Bürgin (2005) assessed couples' "triadic capacity" using an interview prior to the infant's birth. This capacity referred to the couples' anticipation of future family relationships without excluding either themselves or their partners from the relationship with the infant, and it predicted, at age 4 years, the coherence and positive themes in children's narratives and lower levels of behavior problems. These studies provide preliminary support for the important role of parents in shaping family interactions and point to the internal parenting processes that may underlie parental behavior, but clearly more research on this issue is needed. As mentioned earlier, in the present study we examined how parental insightfulness contributes to the family's cooperation.

Insightfulness—the parent's capacity to see and feel things from the child's point of view—includes three components: insight into the motives underlying the child's behavior and acceptance of these motives, a complex view of the child, and openness to new and unexpected information about the child (Oppenheim & Koren-Karie, 2002, 2009). Insightfulness is measured using a video replay procedure in which parents are shown video segments of their children and are subsequently interviewed about the children's thoughts and feelings. The Insightfulness Assessment (IA) assesses how parents apply their general representations of their children in order to understand a specific moment in the child's life—namely, the moment captured in the video segment they observe (Oppenheim & Koren-Karie, 2009). The transcripts of parental interviews are classified into one insightful or one of three noninsightful classifications, and in most studies the three non-

sightful classifications were grouped together yielding a dichotomous insightful versus noninsightful classification.

Studies provided support for the importance of parental insightfulness for parent-child interactions and children's emotional development. Insightful mothers interacted with their children more sensitively than did noninsightful mothers and were more likely to have children classified as having secure attachments to them (Koren-Karie et al., 2002; Oppenheim, Koren-Karie, & Sagi, 2001). Insightfulness was also examined with high risk children in order to examine whether it maintains its importance even when the children show challenging behaviors. For example, in two studies of mothers with children with autistic spectrum disorder (ASD), insightful mothers were more synchronous (Hutman, Siller, & Sigman, 2009), more sensitive in their interactions with their children, and more likely to have securely attached children than were noninsightful mothers (Oppenheim, Koren-Karie, Dolev, & Yirmiya, 2009). In another study of preschoolers who were referred to a therapeutic preschool, a significant drop in children's internalizing and externalizing problems was found, but only for children of mothers whose insightfulness improved during treatment (Oppenheim, Goldsmith, & Koren-Karie, 2004). Insightfulness was also found to moderate the effects of an intervention with mothers of children with ASD designed to promote more-sensitive mother-child play interactions, such that only insightful mothers benefited from the intervention (Siller, Hutman, & Sigman, 2013). Finally, insightfulness moderated the impact of exposure to violence on children, so that those who were exposed to violence but whose mothers were noninsightful showed elevated levels of behavior problems, whereas the behavior problems of exposed children with insightful mothers were lower and not different from those of nonexposed children (Gray, Forbes, Briggs-Gowan, & Carter, 2015).

It is important to note that because insightfulness involves a flexible and accepting orientation toward the child, it is not necessarily related to the level of challenge the child represents. An insightful orientation in parents promotes sensitive and harmonious interactions even with regard to children who present difficult and challenging behaviors. This idea was supported in a study of children in family group homes in which no difference in the insightfulness of caregivers of children independently identified as "easy" or "difficult" were found (Koren-Karie & Markman-Gefen, 2016) and in a study of mothers of children with autism that showed a lack of association between insightfulness and the severity of children's diagnosis (Oppenheim & Koren-Karie, 2009).

Heretofore, studies on insightfulness have all focused on the mother-child relationship, and this study was the first to examine insightfulness in fathers. We posited that the function of insightfulness—providing the foundation for interactions that are sensitive to the child's signals by seeing things from the child's point of view—would be the same for fathers and mothers. This was based on theorizing regarding insightfulness (Oppenheim & Koren-Karie, 2009) but also on studies of a related concept, parental mind-mindedness (Meins, Fernyhough, Fradley, & Tuckey, 2001; Meins, 2013), on which a few studies of fathers have been done. Similar to insightfulness, mind-mindedness refers to the parent's capacity to attribute a mind to the infant by referring to the thoughts, intentions, and goals underlying the child's behavior (Meins et al., 2001) and has been studied primarily by coding

mind-related comments that parents make during interactions with their infants.

Two studies pointed to the similarity between maternal and paternal mind-mindedness: In a study of parents of infants, fathers did not differ from mothers in the frequency of mind-minded comments, and their comments were associated with interactional synchrony and attachment security, as has been found with mothers (Lundy, 2003). Similarly, in a study of families with 4-year-olds, Lundy (2013) found that mothers and fathers performed similarly on measures of mind-mindedness and that both parents' mind-mindedness was associated with their attunement during interactions and with children's Theory of Mind scores.

As mentioned earlier, the present study examined insightfulness in a triadic context. We reasoned that just as the insightful parent's capacity to see and feel things from the child's point of view promotes sensitive behavior in the dyadic context, it also promotes more-cooperative behavior in the triadic context. By taking the vantage point of the child—the essence of insightfulness—parents are able to sensitively and flexibly adjust their behavior and interactions according to the child's needs and emotional signals. Also, insightful parents take into consideration the context of the child's behavior. In the case of dyadic interactions, this involves considering the demands of the situation (e.g., a learning or teaching situation vs. a play situation; a situation that requires limit-setting vs. a situation in which the child can lead the interaction), and in the case of triadic interactions this additionally includes the behavior of the parenting partner. For example, in the segment of the LTP in which the parent is asked to be in the observer (rather than the active) role, the insightful parent does not initiate interaction with the child. Furthermore, if the child turns to the parent during this segment, an insightful parent takes into consideration both the child's wish to engage with the parent but also the demand of the situation that the child interact primarily with the other parent. The insightful parent responds positively but minimally and redirects the child toward the active parent. We therefore hypothesized that an insightful orientation when applied by both parents would lead to cooperative triadic interactions.

In order to test this hypothesis we examined the three possible combinations of maternal and paternal insightfulness: both parents insightful, one parent insightful, and neither parent insightful. We hypothesized that families in which both parents are insightful would show higher levels of triadic cooperation than would families in which both parents are noninsightful. We did not have a prediction regarding parenting dyads in which one parent is insightful and the other noninsightful. On the one hand, it was possible to hypothesize that the discrepancy between the parents would impede the coordination, resulting in less-cooperative interactions. Alternatively, it is possible that the insightful parent may compensate for the noninsightful parent so that more-cooperative interactions would be formed.

In addition to measuring family cooperation, we assessed children's involvement in the interaction. Specifically, the extent to which children were actively engaged in the interaction but could also play by themselves and negotiate limits flexibly was assessed. The question regarding the link between insightfulness and children's involvement remained open. On the one hand, insightfulness is thought to promote children's socioemotional development (Oppenheim & Koren-Karie, 2009), and therefore an association with children's involvement during the interaction could have been

expected. Alternatively, as described earlier, insightfulness is possible even when children are challenging (e.g., when they are less engaged or have difficulties playing alone), leading to no expected association between insightfulness and the child's behavior. Therefore, we left the nature of the link between insightfulness and children's behavior during family interactions as an open question.

Method

Participants

Seventy-seven toddlers (40 boys) and their parents, all residing in a city in the northern part of Israel, participated in the study. Families were recruited through preschools and by word of mouth to a study of "child development in a family context." Inclusion criteria for the families were as follows: cohabiting, having children without known developmental problems, being fluent in Hebrew, and both parents having at least a high school education. Families were Jewish and primarily middle class. Children's mean age was 17.91 months ($SD = 1.09$), mothers' mean age was 31.51 years ($SD = 4.07$), and fathers' mean age was 33.88 years ($SD = 4.29$). Couples were married 5.79 years on average. Fifty-seven percent of the children were firstborn, and the mean number of children in the families was 1.71 ($SD = 1.05$). Mothers' mean number of years of education was 16.23 ($SD = 2.28$), and fathers' mean number of years of education was 16.03 ($SD = 2.70$). Parents were given, as a token of appreciation, a small gift for the child and a DVD with a video record of the laboratory observation.

Procedure

The families were invited to a university-based laboratory playroom. They were first observed in the LTP procedure, following which three triadic interactions were filmed as stimuli for the IA. The IA was subsequently completed by each parent separately during the lab visit or a week later during a home visit. The administration of the IA at the home and laboratory was identical. IAs were always completed simultaneously by both parents, so there was no opportunity for the parents to discuss the video segments with one another prior to being interviewed. Ethical approval (139/09) was obtained from the Institutional Review Board of the University of Haifa.

Measures

The Lausanne Trilogue Play (LTP; Fivaz-Depeursinge & Corboz-Warnery, 1999). In the LTP, the family sits in a triangular formation around a round table on which three socks and three spoons are placed to elicit symbolic play. The child is seated on a high chair, and the family is asked to "play together as a family." One camera focuses on the child, and this image is embedded in the image produced by another camera, which focuses on the triad and is set up such that the parents' faces can be clearly seen. The combined image allows coding of the triadic interaction while having a clear view of the facial expressions and postures of all three participants. The LTP includes four parts: (a) one parent plays with the child, while the other parent is instructed to be "simply present"; (b) the parents switch roles; (c) both parents play together with the child; and (d) the parents interact

with each other, while the child is the “third party” position. The procedure lasts approximately 12–15 min (mean length in this study = 13.68 min, $SD = 2.69$), with the length of each of the four parts and the transition points determined by the parents. The mean length of each of the four parts ranged between 3.24 and 3.72 min. In a random fashion, mothers were asked to begin the interaction with the child in one half of the sessions, and in the other half the fathers were asked to begin the interaction with the child.

The LTP was coded from the video record using the Family Alliance Assessment Scale (FAAS; Lavanchy-Scaiola et al., 2008) which includes the following three groups of 3-point rating scales pertaining to (a) the family as a whole, (b) the co-parenting dyad, and (c) the child. Each scale included the following anchor points: 0 (*inappropriate*), 1 (*moderate*), and 2 (*appropriate*). The *Family scales* include signaling availability to interact using body postures and gazes, inclusion of the partners, maintaining the active or observing role, observing the task’s structure and time frame, reciprocity and joint activity, parental scaffolding based on the child’s abilities, family warmth, validation of the child’s emotional experience, authenticity of expressed affect, repairing communication errors during activities, and repairing interactive errors during transitions. The *Coparenting scales* include support and cooperation, and conflicts and disruptions. The *Child scales* include communicative competence and self-regulation, and negotiating limits. The scales were summed on the basis of the three domains described earlier, yielding a Family Cooperation aggregate score that could range between 0 and 22 ($\alpha = .88$) and Coparenting and Child Involvement aggregates, each of which could range between 0 and 4 (average item/total correlation = .87 and .85, respectively).

The main LTP coder (the first author) was trained to reliability by one of the developers of the FAAS coding on both Swiss and Israeli family interactions. Subsequently, 20% of the observations were coded by this coder as well as an additional, Israeli coder trained by the first author. Interrater reliability on the aggregate scores calculated using Intra Class Correlation was .91 for Family Cooperation, .87 for Coparenting, and .93 for Child Involvement. Although the LTP scores were significantly correlated with one another (mean $r = .56$) as might be expected because they are all coded from the same interaction, they were kept separate because they represent distinct foci on the family interaction and in order to adhere to the coding manual and be consistent with the procedures in prior studies.

Insightfulness Assessment (IA; Oppenheim & Koren-Karie, 2002, 2009). In the IA, which was completed separately by each parent, parents were shown three 2-min video segments from the three triadic interactions that were filmed prior to the interview. In the first interaction, both parents were distracted by completing questionnaires and the child played alone; in the second, the child played with an examiner while both parents were present; and in the third, the child was engaged in a problem-solving task in the presence of both parents. Parents were then interviewed separately with regard to each of the video segments and asked what they thought “went through his/her child’s head,” whether the behaviors observed were typical, and how they felt when watching the segment. Throughout the interview, the parents were asked to support their statements with examples from the observation and from everyday life.

The interviews were transcribed verbatim, and all identifying information was removed from the transcripts. In addition, because in Hebrew the gender of the speaker is evident from the usage of verbs, the paternal transcripts were transcribed in the female voice so that coders could not identify whether they were coding female (i.e., maternal) or male (i.e., paternal) interviews. The coding included two steps (for full details see Koren-Karie & Oppenheim, 2001). First, transcripts were coded on 10 rating scales (insight into child’s motives, openness, complexity in description of child, maintenance of focus on child, richness of description of child, acceptance, anger, worry, separateness from child, coherence of thought). Second, the transcripts were classified into one of four categories, explained in the next four sections, with the first representing the capacity for insightfulness and the other three representing lack of insightfulness expressed in three different ways.

Positively insightful. These parents try to understand the motives underlying their children’s behavior, are open to seeing unfamiliar behaviors of the children in the video segments, and convey a belief in their children’s competencies. Their narration is coherent, and they provide a comprehensive, positive, and child-focused description of their children and their relationship with them.

One-sided. One-sided parents’ responses reflect a preset conception of the children that is imposed on the video-taped segments. These parents speak as if they already know what the children are feeling and thinking and thus do not need to search for motives underlying the children’s behavior. They have difficulties keeping the children at the focus of their speech and portray an all-positive or all-negative picture of the children.

Disengaged. These parents lack emotional involvement during the interview, as reflected in short and limited answers. They seem to feel comfortable with answers such as “I don’t know,” and their description of the children is vague.

Mixed. This category involves parents who do not show one type of speech as defined by the other three categories. Rather, they may respond to one video segment in one style and to another segment with a different style, thus making it impossible to judge which style is dominant.

The IA coding was conducted by the first author (who was trained by the third author) and by the third author (the codeveloper of the IA). Each coder coded one half of the maternal transcripts and one half of the paternal transcripts to avoid confounding of parental gender with coder. Also, in no case did the same coder code both partners of a marital dyad. The first author also coded the LTPs, but blindness to the LTP classification was kept because (a) IAs are coded only from the transcript of the interview with the parent, without the coder viewing the parent or the video segments the parent viewed; (b) all identifying information (e.g., names) was removed from the IA transcripts; (c) the segments the parents viewed in the IA were not from the LTP, thus eliminating the possibility that the parent’s description of the video segment would link to the LTP; and (d) coded participant numbers were assigned to the transcripts so that the participant number assigned to the LTPs and the IAs were different. Twenty percent of the transcripts (half maternal and half paternal) were double-coded, with 81% agreement on the four-way classification system ($\kappa = .65$). Disagreements were resolved through discussion until consensus was reached. Fifty-six mothers (72.7%) were classified

as positively insightful, eight (10.4%) as one-sided, 13 (16.9%) as disengaged, and none as mixed. Forty-eight fathers (62.3%) were classified as positively insightful, three (3.9%) as one-sided, 26 (33.8%) as disengaged, and none as mixed. To increase the power of the analyses, we combined the three noninsightful classifications into one noninsightful group comprising 21 (27.3%) mothers and 29 (37.7%) fathers.

Results

Table 1 provides the descriptive statistics of the study variables. Next the associations between the study variables (the IA of each parent and the LTP scores) and demographic variables (child gender, child birth order, parental age, parental education, number of years married) were examined. None were significant except for those with parental education. Insightful mothers had more years of education ($M = 16.70$) than did noninsightful mothers ($M = 15.04$), $t(df = 76) = 2.59, p = .01$. No links between paternal insightfulness and years of education were found. With regard to the LTP, we found that parents with more years of education had higher Family Cooperation scores ($r = .23, p = .02$, and $r = .31, p = .003$, for mothers and fathers, respectively) and higher Coparenting scores ($r = .36, p = .003$, and $r = .43, p < .001$, for mothers and fathers, respectively) than did those with fewer years of education. No links were found between parental education and the Child Involvement score. On the basis of these results, we controlled for maternal and paternal education in the subsequent analyses.

Maternal and Paternal Insightfulness

Although not hypothesized, links between maternal and paternal insightfulness were examined and found to be marginally significant (likelihood ratio = 3.29, $p = .07$). We also examined the differences in the rates of insightfulness between parents using the nonparametric McNemar test. No differences were found ($p = .18$). According to the study's hypotheses, we formed the following parental insightfulness groups: both parents insightful ($n = 38$; 49.3%), one parent insightful ($n = 28$; 36.4%, of which $n = 18$ in which the mother was insightful and the father was noninsightful and $n = 10$ in which the father was insightful and the mother was noninsightful), neither parent insightful ($n = 11$; 14.3%).

To test the study's hypothesis, we examined the differences between the three parental insightfulness groups and the LTP scores using a multivariate analysis of covariance (MANCOVA) with the IA groups as the independent variable and the three LTP

aggregates as the dependent variables. Maternal and paternal years of education were entered as covariates on the basis of the preliminary analyses presented earlier and because educational attainment may influence parents' verbal skills and consequently their IA interview responses. The overall model for the IA groups was significant (Wilks's lambda, $F(6, 142) = 5.84, p < .001$, and the covariates maternal and paternal education were not significant. Follow-up analyses of covariance revealed significant effects of the IA on the Family Cooperation and Coparenting scores but not on the Child Involvement score (see Table 2). Follow-up contrast analyses revealed that the Family Cooperation and Coparenting scores in families in which both parents were insightful were significantly higher than were those in families in which only one parent was insightful and families in which neither parent was insightful. No differences were found between the families in which one parent was insightful and neither parent was insightful.

We also examined whether within the families with only one insightful parent it mattered whether the father or the mother was the insightful parent (although the power of this analysis was reduced due to the relatively small cells including insightful mothers and noninsightful fathers and insightful fathers and noninsightful mothers). To address this question we conducted a MANCOVA identical to the one described earlier except that this time we examined four (rather than three) parental insightfulness groups as the independent variable (both insightful, mother insightful and father not insightful, father insightful and mother not insightful, both parents noninsightful). As before, we included maternal and paternal education as covariates and the three LTP aggregates as the dependent variables. The overall model for the IA groups was significant (Wilks's lambda), $F(9, 170) = 3.91, p < .001$, and the covariates maternal and paternal education were not significant. The results were identical to those when the two groups in which there was only one insightful parent were combined (see Table 3): The two groups in which there was only one insightful parent had lower Family Cooperation and Coparenting scores than did the group in which both parents were insightful, and they were not different from one another or from the group in which neither parent was insightful.

Discussion

The results of the study supported the hypothesis that parental insightfulness would be associated with cooperative triadic interactions in families with toddlers. Triads in which both parents were insightful had higher Family Cooperation and Coparenting scores compared to triads in which only one parent was insightful and triads in which neither parent was insightful. Cooperative family interactions are marked by appropriate inclusion of each of the three partners, warm and authentic interactions that validate the child, scaffolding the interaction to maintain the child's interest and engagement, and flexible correction of communicative errors. Coparenting is reflected in parents' support and cooperation with one another and successful negotiation of conflicts and disruptions (Lavanchy Scaiola et al., 2008). The findings suggest that parental insightfulness—that is, an open, accepting and child-focused orientation toward the motives underlying the child's behavior while taking into consideration the role of the other parenting partner—fosters such interactions.

These findings are important because they extend the research on insightfulness that has heretofore emphasized its

Table 1
Descriptive Statistics of Study Variables

Variable	Mothers	Fathers	Both parents
Insightfulness: n (%)			
Insightful	56 (72.7)	48 (62.3)	
Noninsightful	21 (27.3)	29 (37.7)	
LTP: M (SD)			
Family Cooperation			13.39 (4.84)
Coparenting			2.67 (1.12)
Child Involvement			2.70 (1.10)

Note. LTP = Lausanne Trilogue Play.

Table 2
Differences in the LTP Scores Between the Three Parental Insightfulness Groups

Variable	Both parents insightful (<i>n</i> = 38)		One parent insightful (<i>n</i> = 28)		Neither parent insightful (<i>n</i> = 12)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Family Cooperation	15.97 _a	3.54	11.42 _b	4.56	9.83 _b	4.91	11.72*
Coparenting	3.21 _a	.89	2.44 _b	1.01	1.54 _b	1.03	9.52*
Child Involvement	2.94	.98	2.60	1.19	2.16	1.11	2.02

Note. LTP = Lausanne Trilogue Play.

* $p < .001$. a < b, $p < .05$.

contribution to dyadic parent-child interactions to the triadic context. Additionally, our findings add to the little available research (e.g., von Klitzing & Bürgin, 2005) on the internal processes in parents that underlie triadic family interactions. Finally, a strength of the findings is the lack of shared method variance and the independence of the two sources of data (IA and LTP): Insightfulness was assessed from transcripts of parental interviews (without observing the video segments the parents viewed), whereas triadic interactions were assessed from observations of family play in the LTP (which were not the same observations the parents viewed for the IA).

It is important to note that high Family Cooperation and Coparenting scores were obtained only when both mothers and fathers were insightful. When only one parent was insightful and when neither parent was insightful, relatively low Family Cooperation and Coparenting scores were found. And, no differences were found between the families in which one parent was insightful and those in which neither parent was insightful. In other words, and perhaps surprisingly, having one insightful parent did not confer an advantage with respect to triadic interactions compared to having no insightful parent (and it did not matter who the noninsightful parent was, the mother or the father).

These findings are consistent with a systems approach that highlights the importance of coparenting (McHale, 2007) for optimal triadic interactions. Thus, although previous studies have shown that each parent's capacity to think about the motives underlying the child's behavior has its own important effect on parent-child dyadic interactions (e.g., Koren-Karie et al., 2002, with respect to maternal insightfulness and Lundy, 2003, 2013, with regard to maternal and paternal mind-mindedness), when triadic interactions are concerned, both parents have to be taken

into consideration to explain the level of cooperation the triad can achieve. The synergy between the insightful orientation of each parent seems to be crucial for cooperative interactions, and the possibility that the insightful parent would compensate for the lack of insightfulness in the other parent raised earlier did not receive support.

The concept of insightfulness emphasizes seeing the world from the child's point of view, but placing insightfulness in a triadic context and considering the synergy between maternal and paternal insightfulness raises the question whether the insightful parent is insightful into only the child's world or, more generally, insightful toward others including the child and the spouse. Conversely, are those lacking insightfulness into the child's world lacking insightfulness generally, including into their partner's experience? If insightfulness cuts across relationships, this could broaden the explanation of how insightfulness promotes cooperative family interactions. The insightful parent takes not only the viewpoint of the child into consideration but also that of the parenting partner, and this could be particularly important in negotiating coparenting (McHale, 2007). Insightfulness toward the parenting partner is likely to foster acceptance of the partner's initiations even if they differ from one's own, constructive negotiation of differences, and support of the partner vis-à-vis the child. Lack of insightfulness, conversely, can lead to competition, undermining of the parenting partner, and collusions. Studies of insightfulness in relation to spouse and child are needed in order to examine this possibility.

The results also pointed to a lack of association between parental insightfulness and child involvement during the LTP. As discussed earlier, we left the link between insightfulness and the child's behavior as an open question. Although a null finding, the lack of association between parental insightfulness and child in-

Table 3
Differences in the LTP Scores Between the Four Parental Insightfulness Groups

Variable	Both parents insightful (<i>n</i> = 38)		Mother insightful and father noninsightful (<i>n</i> = 18)		Father insightful and mother noninsightful (<i>n</i> = 10)		Neither parent insightful (<i>n</i> = 12)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Family Cooperation	15.97 _a	3.54	12.05 _b	4.18	10.30 _b	5.23	9.83 _b	4.91	7.90*
Coparenting	3.21 _a	.89	2.58 _b	1.00	2.20 _b	1.03	1.54 _b	1.03	6.31*
Child Involvement	2.94	.98	2.61	1.19	2.60	1.26	2.16	1.11	1.33

Note. LTP = Lausanne Trilogue Play.

* $p < .001$. a > b, $p < .05$.

involvement is consistent with the notion that parents can be insightful even if children are challenging and conversely that children's involving, positive behavior does not ensure parental insightfulness. A more-methodological interpretation of this finding is that the child measure, which involved only two scales, was too narrow and did not tap the domains of child behavior that benefit from parental insightfulness. Finally, it is possible that the positive effects of insightfulness on children are evident only over time: Insightfulness should be associated with a positive developmental trajectory, and lack of insightfulness should be associated with negative trajectories. This hypothesis can be examined in longitudinal studies.

The study was based on a nonclinical sample, so clinical implications should be made with caution. Nonetheless the findings highlight the importance of adopting a family, rather than solely a dyadic, parent-child model. Knowledge of only one parent's insightfulness appears to not be sufficient to account for the level of cooperation in the family's interaction, because cooperation was observed only when both parents were insightful. These findings suggest that interventions that promote insightfulness are relevant for clinical work. Although we are not aware of triadic interventions designed explicitly to enhance insightfulness, there are quite a few models for enhancing parental insightfulness stemming from dyadic parent-child work. For example, Slade, Sadler, and Mayes (2005) developed an intervention designed to enhance parental reflective functioning with respect to the child, and Powell, Cooper, Hoffman, and Marvin (2014) developed the Circle of Security intervention, which focuses on enhancing parents' empathic understanding of the motivations underlying their children's behavior. More research is needed to examine how these dyadic models can be applied to a family context.

An important caveat is important to mention in closing. We emphasized the effects of insightfulness on triadic interactions, but because both were measured concurrently, the opposite direction of effect is also possible: It is possible that cooperative family interactions promote parents' insightfulness because it may be easier to understand and accept child behavior that is cooperative. Although our findings did not show that children's involvement was related to their parents' insightfulness, making this explanation (i.e., child effects on parental insightfulness) less likely, children's effects on their parents cannot be ruled out. Longitudinal and intervention studies are needed to understand the interplay between what parents bring into their interaction with their children and what children contribute to these interactions. Improving the understanding of such interactive effects is an important goal for future research.

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