

**Integrating Family Ritual and Sociocultural Theories as a Framework for Understanding Mealtimes of Families with Children on the Autism Spectrum**

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**Abstract**

Based on a critical review of research on family meals and autism, this article explores ritual and sociocultural perspectives on shared family meals of families with children on the autism spectrum. Family ritual theory is a lens for analytically understanding phenomena observed in family life, how individuals are connected, and how symbolic meaning is created through patterned behavior. Sociocultural theory explains the presence of culture in thinking, the nature of learning, and the relation between development and instruction. An integration of these theories provides a framework for understanding what mealtime rituals mean and how they are created. Specifically, I address the limitations that impairments associated with autism may impose on a family's ability to have shared family meals by situating sociocultural theory as a method for including children with autism in family rituals when they are not naturally occurring events.

### **Integrating Family Ritual and Sociocultural Theories as a Framework for Understanding Mealtimes of Families with Children on the Autism Spectrum**

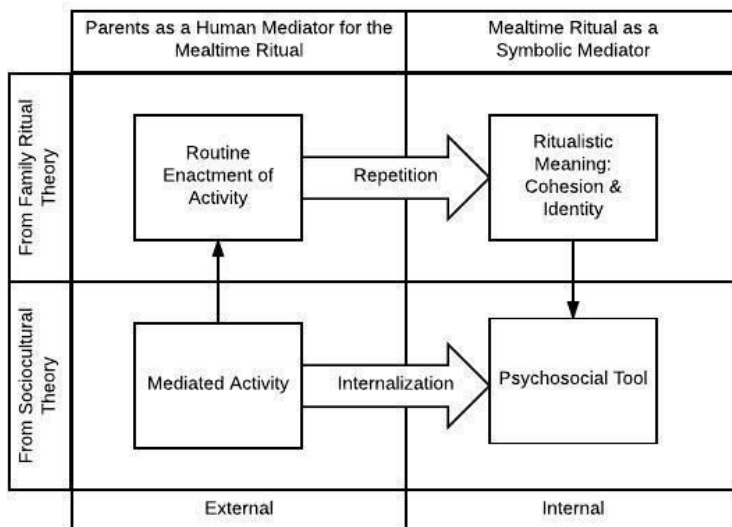
The family meal is an iconic tradition that provides important benefits to families as a context for child development and the promotion of child well-being. Research has examined the connection between the frequency of shared family meals and specific outcomes. For example, shared family meals are related to literacy development (Snow & Beals, 2006), healthy eating habits (Larson, Neumark-Sztainer, Hannan, & Story, 2007; Videon & Manning, 2003), and adaptive internal and external developmental assets (Fulkerson et al., 2006) whereas a low frequency of shared family meals has been associated with risk behavior (Eisenberg, Olson, Neumark-Sztainer, Story, & Bearinger, 2004). In general, the frequency of family meals has remained fairly constant around the turn of the century (approximately four meals a week); however, there are some differences between groups (Neumark-Sztainer, Wall, Fulkerson, Larson, 2013). For example, there has been some decrease in shared family meals for families with lower socioeconomic backgrounds at the same time there has been an increase in frequency among families from higher socioeconomic backgrounds (Neumark-Sztainer, Wall, Fulkerson, Larson, 2013).

Frequency is unlikely to be what causes family meals to have positive outcomes, but rather the processes that happen during the meal (Skeer & Ballard, 2013). For example, communication, emotion management, interpersonal involvement, and positive family functioning were found to be important for family meals to be a protective factor against obesity (Berge, Jin, Hann, & Neumark-Sztainer, 2013). Moreover, many of the routine elements observed during family meals, such as direct and clear communication, flexible adherence to carrying out a meal, and the repetition of roles have been linked to positive child outcomes (Fiese, Foley, & Spagnola, 2006). A process-oriented approach is consistent with the theoretical understanding of family meals.

Ochs and Shohet (2006) considered the shared family meal as a cultural site, “historically durable yet transformable, socially organized and organizing, and tempospatially [sic] situated arenas, which are laden with symbolic meanings and mediated by material artifacts” (p. 35). From this understanding, family meals look different from family to family, across cultures and throughout time, yet they are easily recognized and identified by common patterns of social behavior. Mealtime contains both routine elements such as seat assignment, manners, role assignment, conversation, and attendance as well as ritual elements which are the symbolic meanings attached to these activities (Fiese, 2006). Shared family meals are reoccurring, meaning-laden activities that are an important part of family life beyond the coordinated behaviors they encompass (Larson, Branscomb, & Wiley, 2006) and the cultural objects they employ, for example, diverse eating utensils and cuisines. Mealtimes are where novice members of society (usually children) are socialized into being competent, moral, and appropriate full members (Ochs & Shohet, 2006). Shared family meals can serve as both an organized group activity and the link between individual development and system regulation through the symbolic representation of the meal (Fiese & Parke, 2002).

Each of the characterizations described by Ochs and Shohet (2006) can be called into question among families with children with autism. To what extent are children with autism socialized into full members of society? Do children with autism understand the meaning-laden in the activities of mealtimes? Do families with children with autism employ similar mechanisms for system regulation as families with children with typical development? Although family ritual theory (Bossard & Boll, 1950; Imber-Black, 2003; Roberts, 2003; Wolin & Bennett, 1984) has been applied to understand family meals with children with typical development, the theory has not been used to explain the form and function of family meals of children with autism. Sociocultural theory (Vygotsky, 1978) is often used to understand how to best support children with autism, but it has not been applied to family meals. An integration of these theories provides a framework for understanding what mealtime rituals mean and how they are created. In order to better understand family meals of families with autism, I will (1) define autism, (2) evaluate mealtime through the lenses of family ritual theory and sociocultural theory as mechanisms of development in families with children on the autism spectrum; and (3) integrate these theories with the purpose of answering questions left unanswered by either theory independently. Specifically, I will address limitations that the impairments associated with autism may impose on a family’s ability to have a shared family meal by situating sociocultural theory as a method for including children with autism in mealtime rituals when they are not naturally occurring events. Figure 1 shows the integration of ritual and sociocultural theories. The figure shows the parallels between family ritual and sociocultural theories, and how, when integrated, they provide a framework for understanding mealtimes for families with children on the autism spectrum. Each section of this framework will be discussed.

Figure 1. Integrated Framework



### Defining Autism

The Diagnostic and Statistical Manual of Mental Disorders (5th ed.; DSM–5; American Psychiatric Association; APA, 2013) criteria for autism is the most commonly used definition in the scientific community. The Definition from the APA is derived from the medical tradition, and influences, at some level, nearly all understandings of autism. The APA utilizes the phrase *autism spectrum disorder* or *ASD* to refer to what people commonly mean when they say autism. ASD is a pervasive developmental disorder based on a set of criteria: significant impairments in the domains of (a) social communication and (b) rituals and repetitive behaviors (Wing, Gould, & Gillberg, 2011). These criteria indicate children with autism often have deficits in social-emotional reciprocity, nonverbal communicative behaviors, relationships, sensory reactions, and motor movements as well as having an insistence on sameness and highly restricted interests (APA, 2013).

Autism characterizes differences in the way children learn: children with autism do not attend, encode, process, and or assess information from the social world the way children with typical development do these things (Insel & Fernald, 2004). One reason why these children learn differently is biological, such as gene expressions that may lead to structural changes in the brain (Geschwind, 2011). Fundamental differences in learning and thinking can cause a variety of traits including, but not limited to, idiosyncratic language and communication, intense and highly-focused interests, and moving through the world without being attuned to implicit social rules. Our society has rigid behavioral expectations, and therefore individuals (and families) with autism are often sanctioned, stigmatized, and isolated for not fitting in (Locke, Ishijima, Kasari, & London, 2010) which exacerbates the impairments associated with autism. Each individual with autism has a unique combination of capacities, impairments, and supports that makes autism look very different among different people.

Postmodern understandings of disability are also useful for defining autism--especially when considering a child participating in an event embedded in a cultural context as is the case with family meals. "Disability is a culturally and historically specific phenomenon, not a universal and unchanging essence" (Shakespeare, 2010, p. 268). The medical model of disability situates impairments related to autism within the individual, as deviance, pathological condition, and deficit and in doing so does not address how society functions to make specific impairments disabling (Linton, 1998). In contrast, the social model of disability draws a distinction between a physical limitation (impairment) and disability (social exclusion). Interestingly, although the movement to a social model of disability is considered modern, analysis of Vygotsky's work identifies distinctions between impairments and societal limitations (Gindis, 1995). The imperative for intervention from a social model is to accept the impairment and to change the disability or, in other words, change the structural and societal factors that impede on the freedoms of individuals with impairments (Shakespeare, 2010).

Another important paradigm for understanding autism is a cultural model of disability. From a cultural perspective, normality and impairment are not easily defined and are culturally dependent (Colin Barnes, 2001). For example, people are labeled as autistic not just through

medical diagnosis but also through personal choice and self-identification; what such individuals have in common is not a disorder but rather clusters of behaviors and attitudes (Straus, 2010, pp. 540-542). While many individuals in our society have been provided with a label from the medical community, ultimately individuals with autism define what it means to be autistic (Straus, 2010). To help clarify different understandings of autism in this article, I use *ASD* when referring to autism as a medical condition and *autism* when referring to a broader set of traits that have a particular meaning in social and historical context. I also use person-first language (i.e., individual with autism as opposed to an autistic person) as consistent with the dominant trends in the current American disability movement except when this terminology is problematic for understanding autism as a culture.

Although social communication and rituals and routines are at the core of how autism has been clinically defined, a broader understanding of ritual and sociocultural learning has rarely been theorized with this population. In fact, when ritual is discussed in relation with autism it is almost always understood as pathology. There is almost no effort to understand autistic ritual within the larger cultural conceptions of the form and function of rituals (there have been some studies that utilize children with autism's ritualistic activities to facilitate play, for example, Baker, 2000). Similarly, the impairments of social communication are almost always contextualized from a deficit model instead of a difference in how children learn. Integrating family ritual and sociocultural theories can expand the understanding of mealtimes of families with children with autism beyond a deficit model.

### **Family Ritual Theory**

Family ritual theory is a lens for analytically understanding phenomena observed in family life, how individuals are connected, and how symbolic meaning is created through patterns of behavior over time. Wolin and Bennett (1984) proposed a typology of family ritual that consisted of family celebrations, family traditions, and patterned family interactions. Each category varies in the degree to which it is practiced (or performed) in the larger society, standardization of the practice, frequency of occurrence, and degree of intentionality. In this typology, *patterned family interactions* consist of bedtime rituals, shared family meals, and special leisure activities (Wolin & Bennett, 1984). Although they are practiced in the larger society, patterned family interactions such as mealtimes can be highly idiosyncratic to the family, occur very frequently, and are the least deliberate of all types of family rituals. Mealtimes are ongoing and intertwined with daily life; however, they can create a "frame of 'specialness' beyond the everyday" (Roberts, 2003, p. 8).

### **The Form of Shared Family Meals**

A specific activity, such as a meal, may have both routine and ritual elements. Existing research has distinguished the functional and logistic aspects of family life as family *routines* while defining the symbolic and emotional aspects as the *ritual* (Fiese, 2006). Routines are different from rituals in terms of three dimensions: communication, commitment, and continuity (Fiese et al., 2002). In a family ritual, *communication* refers to problem-solving, discussion of sensitive topics, and affective climate instead of the instrumental parts of the task such as

requesting desired food items; *commitment* in ritual refers to emotional investment instead of how a task is accomplished; and *continuity* of the ritual refers to intra-family and intergenerational cohesion instead of the frequency of occurrences (Fiese et al., 2002). Thus, an activity may become more than a routine when, through repetition, it moves beyond utility and starts taking on the functions of ritual, such as conveying symbolic and emotional meaning and determining group membership (see the top center boxes in Figure 1). When shared family meals are an important part of organizing family life, creating a sense of family identity, and providing a space for members to participate in shared meaning making, they are not just a family routine, but a family ritual (Wolin & Bennett, 1984).

**Mealtime Ritual and Autism.** Although family rituals may be more or less distinctive, variations in the ritual are noted, and it may be that an individual involved in the ritual or an outside observer may feel that the ritual was not performed adequately (Parkin, 1992). For example, if a child with autism uses a special kind of chair at the dinner table that allows him or her to bounce throughout the meal, the child's grandmother may not feel like it is a *family dinner* because it does not fit her expectations of what a family meal looks like. In this way, although family rituals are in some way unique to families, they are also beholden to larger cultural standards.

**Communication.** Families with children with autism have to make intentional choices in regards to what routines to make meaningful in their lives. For some families the mealtime is one of these activities (Bagby, Dickie, & Baranek, 2012). These families describe the mealtime as a place where they can be together and have a conversation (Bagby et al., 2012). Other families may still seek to use mealtime as an opportunity to talk about their day, but have difficulty doing so and attending to their child with autism; they may distract the child by turning on the television or dismissing him or her from the table so that the other members of the family can share (Marquenie, Rodger, Mangohig, & Cronin, 2011). When observing families at dinnertime and in other settings, children with autism had difficulty improvising prayers, co-telling stories about their day, and understanding the conversation. There were strategies, however, that parents were able to use to promote social coordination: speaking the same first language as the child, using short conversational turns, talking about objective knowledge, sitting side-by-side (instead of face-to-face), using objects, writing, pointing, restraining affect, and keeping a fast tempo (Ochs & Solomon, 2010).

**Commitment.** Commitment in ritual refers to the emotional investment in the meal, but for families with children with autism, it can be difficult to tease apart from the more routine aspect of how the family simply carries out the meal. For example, in a family with only children with typical development, food selection may have little to do with the mealtime ritual but instead be perfunctory. Parents of children with autism may be more likely than parents of children with typical development to believe that there is a relationship between nutrition and behavior (Raiten & Massaro, 1986) and therefore may have more rigidity with food selection. The relationship between child food selectivity and parent behavior is dynamic; parents may perpetuate picky eating by preparing their children special meals (regardless of whether they

have autism; Hendy, Williams, Rigel, & Paul, 2010). Parents of children with autism may have more negative perceptions of their child's eating behavior than parents of children with typical development. In a study that compared the two groups, despite children from both groups eating the same amount of food, parents of children with autism were more likely to consider their children picky or difficult eaters (Lockner, Crowe, & Skipper, 2008). Food can become a symbol of stress for families with children with autism that can lead mothers to dread mealtime (Marquenie et al., 2011). Furthermore, mothers of children with autism may have stress related to mealtimes such as being concerned about diet or being worried about their spouse's stress level (Anderson, Must, Curtin, & Bandini, 2012).

**Continuity.** There is some evidence that indicates there is no difference in the frequency of shared family meals among families with children with autism compared to families with unaffected children (Lee, Harrington, Louie, & Newschaffer, 2008). Parents of children with autism who reported that they had more success with routines in the home environment because it was familiar (Schaaf, Toth-Cohen, Johnson, Outten, & Benevides, 2011). Despite this finding, families found mealtime routines could be difficult to complete on a regular basis, especially in a way that families perceived as relaxing or met their perceptions of a "normal" shared family meal (Schaaf, Toth-Cohen, Johnson, Outten, & Benevides, 2011). It may be that there is no difference in the routine elements of actually having a meal occur, but that these meals do not sufficiently serve to reinforce intra-family connections. A routine that lacks a deeper meaning would not be considered a family ritual, and there is some evidence that this is the case. A very small sample study found that there was a lesser degree of ritualization of shared meals for families with children with autism compared to families with unaffected children despite having fairly comparable levels of adhering to family routines (Rodger & Umbaibalan, 2011). Another small sample study found that the markers of mealtime recognizable in all families were present in families with children with autism such as preparing the meal, setting the table, sitting at a table, eating a meal, and cleaning up; however, in this study the mothers were often preoccupied with the child with autism and his or her unique behavior rather than the meal itself. Often the child would not participate in many of the markers of the meal; for example, the child with autism may not sit at the table or not eat the food (Marquenie et al., 2011) suggesting that when a family defines a shared family meal they may report that they eat together--even if the child with autism's participation is limited at best. It may, however, be a premature to conclude that mealtime is not as important for families who have children with autism. For example, another study found, that even if it is a sporadic occurrence, when families were able to sit and eat a meal, especially out in public, they reported feeling like "normal" family--something that the family very much looked forward to (DeGrace, 2004).

### **The Function of Family Meals**

Because human beings are social they construct their identities in relationship with real and imagined others (LaRossa & Reitzes, 1993). Individuals use ritual as a mechanism for constructing identity and meaning among a group (Geertz, 1973). Through ritual, a family comes to have a shared understanding; it is through ritual that meaning is regulated (Kantor &



Lehr, 1975). Two meanings must be expressed and interpreted by the group that can be conceptualized in terms of questions. The first is *who are we?* and the second is *who is in and who is out?* Put differently, family rituals stabilize identity, clarify roles, delineate boundaries, and define rules for the family (Wolin & Bennett, 1984).

**Who are we?** Through their special meaning and their repetitive nature, rituals contribute significantly to the establishment and preservation of a family's collective sense of self (Wolin & Bennett, 1984). A family's identity is both constructed through ritual and reflected by family rituals. For example, Reiss hypothesized (1971) that rituals perpetuate a family's paradigm, in other words, its consensual understanding of reality. Rituals communicate a special meaning, through action and metaphor, that creates an experiential understanding of roles, relationships, and world views (Roberts, 2003). The external behavioral actions become internal (see the left and right central boxes in Figure 1).

For families of children with autism, autism often becomes a core feature of the family's identity. Parents report that all of their decisions are affected by their child's autism (Hoogsteen & Woodgate, 2013). Mothers, after receiving an ASD diagnosis, often report a sense that their lives will never be the same (O'Brien, 2007). The presence of an ASD diagnosis suggests a shift in family identity which occurs despite the fact that their child has not at all changed, but rather as a direct response to receiving the ASD diagnosis.

**Who is in and who is out?** Rituals reinforce who is in and who is out; they are sites where inclusion and exclusion processes emerge to define and redefine group membership (Gamson, 1997). A core function of family rituals is to establish and perpetuate the understanding of what it means to be a member of the group through communication and symbolism (Spagnola & Fiese, 2007). Many see ritual as promoting belonging; however, these theorists were rarely examining ritual from the perspective of the *other* (Oswald, 2001). In general, family meals are a site where membership in the group is expressed and families intentionally or unintentionally use ritual to exclude members who make the idealized form of family difficult to achieve (Oswald, 2002).

Children with autism often display highly ritualized and idiosyncratic behavior; these behaviors are a definitive characteristic of autism which often exclude them from group membership, isolate them from others, and are barriers to shared meaning (Richler, Huerta, Bishop, & Lord, 2010). There is evidence; however, that these autistic rituals can be utilized to expand a child's ability to symbolically connect with peers (Baker, 2000). For example, children with typical development and their siblings with autism can both participate in structured play activities that incorporate individual ritual elements with traditional play. The inclusion of the child's ritual provides additional opportunities for socialization and developing an affective bond. In an intervention based on this process, the children were able to maintain these connections during mealtime activities suggesting that even highly personalized rituals can be utilized in specific contexts to promote group membership (Baker, 2000). Thus the presence of the child with autism and the ability of the family to incorporate the child into the meaning making parts of a meal is an important part of the boundary defining process.

Bauman (1992) argued that ritual unites a group of people because it is performed against an implicit or explicit other. Ritual not only defines who is in and who is out; ritual can also prepare and protect the family from the outside world (Reiss, 1971). The ability of ritual to unite the family in order to protect it from the outside world is especially important for families of children with autism. Here the performance of a mealtime ritual is not so much about the boundaries of a family unit, but rather the family's sense of feeling like it is part of the larger cultural group. Families of children with autism may feel that they are not a *normal* family and the sense of otherness may cause isolation (Woodgate, Ateach, & Secco, 2008). All families likely use an idealized construction of family as a reference for their own family ritual; however, the idealized family precludes having a child with a disability, and thus families with children with autism are inherently *othered*. Family rituals are important to families with children with autism in constructing a sense of normalcy; shared family meals stands out as being one of the most important (Gray, 1997).

### **Limits of Family Ritual Theory for Families on the Spectrum**

There are limits to the current literature on family rituals, mealtimes, and autism (see Table 1 at the end of the manuscript for articles that address mealtimes, family routines and rituals or family processes, and autism). Many of the studies rely on small samples. While this may be appropriate for some qualitative methods, small sample sizes limit the validity of descriptive data. It remains unclear to what extent families with children on the spectrum participate in shared family meals; to what extent the child with autism participates in meals and with what other members of the family; how families are able to achieve family meals to accommodate their child with autism; and the role of mealtime rituals in the development of family identity. There has also been a lack of attention to the constructs of routine and ritual and how these constructs operate together yet distinctly related to child and family outcomes (Crespo et al, 2013). Mealtimes are often one routine of several examined in a study, which has left a lack of attention to the specific contributions of mealtimes for families of children with autism. Finally, much of the current literature focuses on families under duress and only highlights the ways family meals can be dysfunctional (e.g., Bagby et al., 2012; DeGrace, 2004; Marquenie et al., 2011). A focus on deficits may obfuscate how parents create functional routines and meaningful rituals. There is no evidence that families with children with autism value mealtime less or are less likely to see mealtimes as a normal part of family life. In fact, they may actively feel an absence of family mealtime (DeGrace, 2004).

Parents and caregivers have the role of implementing and facilitating the mealtime ritual. In other cultural practices, parents can have a difficult time adapting to a child with special needs. For example, society has patterns of language socialization that are historically rooted, socio-cultural practices such as baby talk (Ochs & Schieffelin, 1984). Sometimes historical patterns create less than ideal conditions for the development of children who have neurological impairments such as autism, for example, eye contact as a communication practice (Ochs, Solomon, & Sterponi, 2005). For these children, parents may not independently adapt to meet their child's unique needs (Ochs et al., 2005). To the extent that rituals are naturally occurring

family processes, at least some families with children with autism may not be able to participate in mealtime rituals as parents may not be able to adapt rituals to meet their child's needs. Another challenge is not having cultural standards for what adaptations may look like. Some parents, however, intentionally facilitate a mealtime ritual. They may do so independently or have had opportunities to learn strategies to incorporate their child with autism into the ritual experience. When parents were able to use strategies to facilitate socio-cultural perspective taking, children with autism without cognitive impairments have shown evidence of success during dinnertime conversations based around question and answering (Kremer-Sadlik, 2004). Sociocultural theory provides a framework for understanding how parents can intentionally promote their children's engagement in rituals. Family ritual and sociocultural theories are well suited to complement each other due to the system level nature of theories. Additionally, family ritual theory and sociocultural theory highlight the role of culture and symbolic meaning.

### **Sociocultural Theory**

Sociocultural theory explains the presence of culture in thinking, the nature of learning, and the relationship between development and instruction (Kozulin, 2012). Sociocultural theory seeks to explain the physical and social relationship between human beings and their environment; labor as the means for relating human beings to nature and the consequences of this relationship; and how *tools*, both psychological and technical, are related to the development of the interworking of the mind (Vygotsky, 1978). Sociocultural theory is a powerful tool for explaining human development, especially the relationship between culture and thinking, the process of learning, and how parents (among others) shape development. Sociocultural theory was developed by Lev Vygotsky (1896-1934) to describe human development in terms of four domains:

*Phylogeny* (the evolution of the human species), *history* (the development of cultural tools and sign systems, including languages, forms of literacy, mathematics, mythology, and science, *ontogeny* (psychological development), and *microgenesis* (the moment-to-moment changes of understanding when performing some task; Edwards, 1997, p. 44)

These domains come together in social interaction (Wertsch, 1985) where social means both between two or more people and being embedded in a sociocultural context (Wertsch, 2000). Most of developmental psychology examines the child as the smallest unit of analysis; however, from a sociocultural perspective, the child participating in an event embedded within a cultural context is the smallest unit of analysis (Miller, 2002). From a sociocultural perspective, one would not conceptualize the meal, the child, and the parent as distinct entities but rather as a single unit. Thus, mealtime provides a rich sociocultural-historical context in which children are fused in activity with other people (typically their families) and a unique opportunity to examine development from a sociocultural theoretical perspective.

### **Mediation**

Critical to the learning process is the adult (or more skilled peer) building on the child's competencies to facilitate the child developing new skills (Vygotsky, 1978) as a human

mediator. As the child and the adult work together to solve a problem, the child and the adult engage in *intersubjectivity* or shared understanding. Mediation happens within a range called the *zone of proximal development*: the difference between what a child can do independently and what a child can achieve through guidance and collaboration with more skilled individuals (Vygotsky, 1978). Mediation describes the processes by which a child moves through this range (Kozulin, 2003). Through shared understanding, there is an “internal reconstruction of an external operation (Vygotsky, 1978, p. 56) or in other words, the child *internalizes* the adults’ culture (Rogoff, 1990). The process is happening as children learn from instruction by adults and more skilled peers as well as through observation (Rogoff, 1990). The process of mediation causes the internalizations of *psychological tools* which are signs, symbols, and other mental structures that facilitate cognition (Kouzlin, 2003). The process is represented in the lower central boxes in Figure 1.

For example, at dinner, a young child may bang his utensil on the table and be pleased with the noise. At first, his mother may smile at his playing, but after some time, she guides his hand to use the utensil to scoop his food. When he uses the utensil on his own, she smiles and coos at him saying, “That’s my big boy, look how good you eat with your spoon.” At this moment the mother is teaching him how to use the spoon. She had *scaffolded* his learning by using a physical prompt when he did not use the spoon as an eating utensil independently. She is teaching him a word by naming the utensil as a spoon, and this is part of the process through which the child internalizes language, a psychological tool. She is also communicating to the child cultural expectations about what tasks are done at the dinner table (eating and not playing), the value of independence (encouraging him to eat on his own rather than feeding him). The child is physically capable of using a spoon and may even have somewhat of a conceptual understanding of “spoon.” The child does not learn to use the spoon independently, but rather the child’s learning is mediated through the actions of the mother to facilitate the task. In his mind, the word spoon will also serve as a mediator of understanding its function.

In this example, the child not only learns from the mother’s intervention but also from watching what is happening at the dinner table; however, the ability for children to learn through observation is not equally true for all children in all contexts. Children with autism often have difficulty learning without intentional instruction especially about social relationships (Lord, 1984). The role of intentionality on the part of the parent, more skilled peer, or practitioner makes sociocultural theory an important paradigm and mediation a central concept for most interventions for children with autism.

**The role of language.** Adults help children to develop the inner structure of the mind by teaching them to use psychological and technical tools (Kozulin, 2003). Both technical and psychological tools are embedded within a culture, but whereas a spoon is an example of a technical tool and externally oriented, a psychological tool will be internally oriented with the goal of organizing and controlling thinking and behavior (Miller, 2002). To Vygotsky, language was the most critical or valuable psychological tool; language is the foundation for thinking,

organizing reality, controlling behavior, understanding memory, and problem-solving (Miller, 2002).

Children with autism vary to the degree they develop language (Thurm, Lord, Lee, & Newschaffer, 2007). The example of a child and the spoon utilized above can illustrate why there is such a great deal of variability. At dinner, a young child may bang his utensil on the table and be pleased with the noise, but he does not attend to his mother's response nor her attempt to guide his hand to use the utensil as a spoon. She has nothing to praise, and even if she did praise him, perhaps after eating from his spoon when she has guided it to his mouth, he might not attend to this either. Even if he does process that she has spoken to him, it might not evoke pleasure, and therefore, even if the content of her words are praise, they are not functionally praise. It is unclear whether the task of using a utensil to eat, symbolically using the word spoon to represent an item, or understanding cultural expectations are within the child's zone of proximal development. The child might not be connecting the word spoon to the object, and he may not be developing symbolic mediators. That is, the child may not be connecting the object to a function that exists within his mother's mind, beyond any function that might exist solely within his own. Without the tool of language, it is unclear if he would develop other psychological tools necessary to process and organize the more abstract cultural lessons that are embedded in the exchange. What makes understanding the role of language more complex for children with autism is that it appears that some children with autism develop language, but that language does not serve as a psychosocial tool in the same way it does for children with typical development (Eigsti, de Marchena, Schuh, & Kelly, 2011).

**Psychological tools beyond spoken language.** Although children with autism may have limitations in the extent that language can be internalized, other psychological tools could substitute or supplement spoken language. For example, Kozulin (1998) has examined the role of literacy and literature as important psychological mediators. Although he did not specifically address the needs of children with autism, he expanded the concept of psychological tools to include literature as a concrete mediator of human experience. A commonly used evidence-based practice called Social Stories relies on narrative to help prepare children with ASD to manage novel or potentially difficult situations (Odom, Collet-Klingenberg, Rogers, and Hatton, 2010). Social Stories describe social situations, elucidate participant perspectives and values, and give examples of appropriate responses (Gray, 2000). One reason these stories may be effective is that the narrative form may serve as a psychological tool.

Patterns of behavior may be another psychological tool for individuals with autism. Although she does not speak directly to Vygotskian theories of development, in her book, Thinking in Pictures, Dr. Temple Grandin (1995) described how visualization is the primary psychological tool of her mind. Grandin is a professor of agriculture at the University of Colorado, an individual with autism, and an autism advocate.

I think in pictures. Words are like a second language to me. I translate both spoken and written words into full-color movies, complete with sound, which run like a VCR tape in my head...I create new images all the time by taking many little parts of images I have in

the video library in my imagination and piecing them together...to create new designs, I retrieve bits and pieces from my memory and combine them into a new whole...my thinking pattern always starts with specifics and works toward generalization in an associational and non-sequential way. As if I were attempting to figure out what the picture on a jigsaw puzzle is when only one third of the puzzle is completed, I am able to fill in the missing pieces by scanning my video library. (p. 3 – 16).

The “pictures” that she describes are not still, but rather moving images: patterns of behavior that organize her thinking and learning. It may be that patterns of behavior are more universally fundamental to how individuals with autism organize their minds. Ritual can be a tool for sharing understanding across the worlds of neurotypical (a word used in the autism community to describe individuals without autism) and autistic thinking.

An important concern when considering psychological tools beyond language is that the processes of internalization may diverge from Vygotsky’s original conceptualizations. Vygotsky (1978) described internalization as the external activity occurring internally: the interpersonal process transforming into an intrapersonal process through mediation. Considering narratives and patterns of behavior as psychological tools would seemingly require mediation, to some degree, in the opposite direction; an activity that is internal to the child becoming external. For example, a parent may incorporate favorite characters in conversations to help children communicate about their daily activities—using the characters as special symbols to communicate deeper meanings (Suskind, 2014). In thinking about the process of mediation for family meals, the child’s idiosyncrasies become central to the mealtime ritual.

### **Integrating Family Ritual and Sociocultural Theories**

There are many questions left unanswered from the lens of family ritual especially when applied to mealtimes of families with children with autism. How do parents facilitate children’s participation in the family ritual? Can children with autism learn more than just the functional tasks related to the meal, but the symbolic elements as well? How does the extent to which a child is impaired by autism affect his or her participation in the mealtime ritual? Are mealtimes related to similar child and family outcomes for families with children with autism as they have been with families with children with typical development? Sociocultural theory sheds some light to how these questions may be answered. Although Vygotsky proposed that instrumental and psychological tools are important for internalizing, the exact processes remains unclear (Miller, 2002, p. 410). The exact role language plays in this process is also unclear. For example, family rituals imply the internalization of cultural values and family identity; however, internalization happens not just through the language of the ritual but also the use of objects associated with the ritual and the patterns of behavior that encompass the ritual. In instructional settings, objects can be extremely important for teaching new activities and establishing joint attention (Korkiakangas & Rae, 2013). For children with autism, objects and patterns of behavior may be critical for internalization and may be more important symbolic mediators than language. I provide some examples in the following section of how parents might use objects or structure patterns of behavior to promote internalization of symbolic meaning.

### **Parents as a Human Mediator for the Mealtime Ritual**

Sociocultural theory suggests that parents, trusted adults, and more skilled peers play a vital role in child development. Parents can intentionally (and unintentionally) engage children, even children with autism, in participation in the family ritual (see the left center boxes in Figure 1). Parents can make adaptations to the meal to make it more conducive for children with autism to be successful, such as using specialized seating, structuring conversation, and creating an explicit narrative of the form and function of the meal. They may also scaffold the mealtime experience so children can participate more fully over time. The form of ritual in our culture places boundaries on these adaptations. In order to be successful, parents may make adaptations to the meal that make it too different from shared cultural expectations of what is needed to fulfill the ritual; however, family meals are already highly idiosyncratic when compared to other types of rituals and the most amenable to change. As children move through the zone of proximal development and are able to take on more aspects of the meal independently, the parents may also reduce adaptations to the meal, so it more closely resembles what is culturally expected. Parents may have difficulty making these adaptations independently but may be able to do so with support from a practitioner such as an occupational therapist.

One way that parents can teach children to participate in mealtimes is through the use of an evidenced based practice called visual supports (Odom, Collet-Klingenberg, Rogers, and Hatton, 2010). Visual supports refer to the use of real objects, photographs, written words, and line drawings to convey messages (Meadan, Ostrosky, Triplett, Michna, & Fettig, 2011). For example, they can be used to show a schedule of activities (e.g. the plan of activities for the evening), how to complete a task (e.g. set the table), visually structure the environment (e.g. a placemat that has a picture of a place setting to show where everything goes), script interactions (e.g. a script for asking family members about their days), and prompt interactions (e.g. a stop card to help deter problematic behavior during the meal without a verbal correction). Visual supports are typically used to support the routine aspects of the meal, or rather, how to complete the tasks associated with the meal. There is less evidence of how they can be used to promote sharing, problem-solving, and cohesion in families; however, it is reasonable to assume that for families that are able to achieve a rich symbolic mealtime ritual, visual supports may be playing a role.

### **Mealtime Ritual as a Symbolic Mediator**

Child development is embedded in culture, and culture is constantly expressed in the child's immediate setting. As a child is learning the more functional elements of the meal, they will also be learning some of the symbolic elements of the meal. The child's ability to develop symbolic meaning will be mediated by the child's ability to develop psychological tools, but participation in ritual also connects the child to his or her larger culture and family culture through the symbols and actions of the meal (see the right center boxes in Figure 1). The symbolic (ritual) and instrumental (routine) elements of the meal are embedded and intertwined with one another, even if they are related to different developmental outcomes. Even as the child learns functional tasks such as sitting on a chair and using utensils (tasks that may be no small

feat for families with children with autism) the child and the family will co-create their identity and what they value. As an example, the very symbol of all members of the family being at the table sends a powerful message of inclusivity. A sense of belonging is a concept is likely to be within the zone of proximal development for many children with autism even if they cannot put that message into words independently. Thus, even if it may be easier for parents to support their children with learning the routine aspects of the meal, the effort to include the entire family could create a deeper sense of cohesion.

Because we have such a limited understanding of the culture of autism there are few indicators of what values are important to individuals with autism and how those values are expressed (the notable exception is the nascent research on autism culture online, for example, Davidson, 2008). At this time, we have not studied individuals with autism from a cultural perspective to determine how they understand and express family identity. Currently, we assume that individuals with autism would express symbolic constructs similarly to how individuals with typical development would with less sophistication or understanding (Fernyhough, 2008). It remains to be determined that the current assumption, that individuals with autism are limited in their development of deeper understanding (Hobson, 1993), or rather if they have a different way of conceptualizing symbolic meaning. It may be that patterns of behavior coupled with the use of cultural artifacts (such as artifacts used in ritual) are an important symbolic mediator for children with autism.

### **The Effect of the Degree of Impairment**

Unfortunately, sociocultural theory does not give a clear answer to the question of how the extent to which a child is impaired by autism affects his or her participation in the mealtime ritual. What sociocultural theory does suggest is that a child's participation in the mealtime ritual will be related to his or her zone of proximal development. For some children, the problem-solving needed to participate in the ritual may be beyond the child's range of what they can achieve even with adult support. However, it will be difficult to determine if, in fact, deeper meaning is beyond the child's ability or if the parent has been unable to implement appropriate scaffolding for the task. It may be that a child is able to participate, but remains heavily reliant on adult support for long periods of time, makes little progress, or regresses in their ability to participate independently. However, it is through participation children come to a deeper understanding of ideas and practices (Fernyhough, 2008). Thus a failure to include children with autism in the routine aspects of ritual could preclude their ability to develop the deeper meaning associated with mealtimes.

### **Areas for Future Research**

The integration of family ritual and sociocultural theories provide a framework for understanding what mealtime rituals mean and how they are created. The impairments associated with autism can impose constraints on a family's ability to have shared family meals; however, sociocultural theory opens the door to how families can include children with autism in rituals when they are not naturally occurring events. Although more work is needed to understand the mealtime rituals of families with children with autism and how sociocultural



theory can be used to support children with participating in mealtime rituals, together these theories shed light on important family processes.

There are many limitations to the current research on autism and family meals. Future research can explore what mealtimes look like for families of children with autism with a specific focus on mealtimes rather than on mealtimes as one of many routines. The current literature largely uses families of children with typical development or other developmental disabilities as a comparison group (e.g., Bagby et al., 2012; Hendy et al., 2010; Lockner et al., 2008; Roger & Umaibalan, 2011); this does not allow for an in-depth examination of within-group differences among families with children with ASD. In order to understand the strategies that parents naturally employ to be successful, future research should examine families who are successful with mealtime routines and feel their child participates in meaningful rituals. Future research could build on the work of Ochs and Solomon (2010) and their ethnographic study of children with autism. Theirs is the most robust examination of lived experience and autism; however, it has a linguistic focus. Additionally, the child is the primary unit of the analysis rather than the family and mealtimes are one of many sites they examine. Future research can examine the mealtime experience specifically identifying the nature of family meals, how useful routines and meaningful rituals are established, and barriers to achieving them. The integrative framework I have proposed could guide this inquiry.

Although there has been a random national sample of quality of life indicators that included families of children with autism, this study can only tell us the frequency of shared family meals (Lee et al., 2008). Future research can explore if shared family meals are associated with similar outcomes for families who have children with autism as they are for families who have children with typical development. Furthermore, using the integrative framework as a model, future research can explore how within group differences in family processes during mealtimes relate to outcomes. For example, in order to better understand mealtimes as a symbolic mediator, future research can test the effectiveness of using strategies such as visual schedules and social stories to facilitate ritualistic aspects of mealtimes as well as the routine aspects. Finally, future research should examine how ritual and repetition can be used in adaptive ways for individuals with autism and their families.

### **Conclusion**

The study of shared family meals and autism is of utilitarian import to families but is also a rich area for understanding family processes and autism. The integration of family ritual and sociocultural theories provide a framework for understanding what mealtime rituals mean and how they are created. Although the impairments associated with autism may make mealtimes difficult, situating sociocultural theory as a method for including children with autism can lead to new research that will provide insight into how mealtimes can be functional and meaningful.

### References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing
- Anderson, S. E., Must, A., Curtin, C., & Bandini, L. G. (2012). Meals in Our Household: reliability and initial validation of a questionnaire to assess child mealtime behaviors and family mealtime environments. *Journal of the Academy of Nutrition and Dietetics*, *112*, 276-284. doi: 10.1016/j.jada.2011.08.035
- Bagby, M. S., Dickie, V. A., & Baranek, G. T. (2012). How sensory experiences of children with and without autism affect family occupations. *The American Journal of Occupational Therapy*, *66*, 78-86. doi: 10.5014/ajot.2012.000604
- Baker, M. J. (2000). Incorporating the thematic ritualistic behaviors of children with autism into games increasing social play interactions with siblings. *Journal of Positive Behavior Interventions*, *2*, 66-84. doi: 10.1177/109830070000200201
- Bauman, R. (1992). *Folklore, cultural performances, and popular entertainments: A communications-centered handbook*. New York, NY: Oxford University Press
- Bossard, J. and Boll, E., (1950). *Ritual in family living*. Philadelphia, PA : University of Pennsylvania Press.
- Bruner, J. S. (1975). The ontogenesis of speech acts. *Journal of child language*, *2*, 1-19.
- Crespo C., Santos S., Canavarro M.C., Kiełpikowski M., Pryor J., ? Feres-Carneiro T. (2013). Family routines and rituals in the context of chronic conditions: A review. *International Journal of Psychology*, *48*, 729. doi:10.1080/00207594.2013.80681
- Davidson, J. (2008). Autistic culture online: virtual communication and cultural expression on the spectrum. *Social & cultural geography*, *9*, 791-806. doi: 10.1080/14649360802382586
- DeGrace, B. (2004). The everyday occupation of families with children with autism. *The American Journal of Occupational Therapy*, *58*, 543-550. doi: 10.5014/ajot.58.5.543
- Edwards, D. (1997). *Discourse and cognition*. Thousand Oakes, CA: Sage Publications Inc.
- Eigsti, I. M., de Marchena, A. B., Schuh, J. M., & Kelley, E. (2011). Language acquisition in autism spectrum disorders: A developmental review. *Research in Autism Spectrum Disorders*, *5*, 681-691. doi: 10.1016/j.rasd.2010.09.001
- Eisenberg, M. E., Olson, R. E., Neumark-Sztainer, D., Story, M., & Bearinger, L. H. (2004). Correlations between family meals and psychosocial well-being among adolescents. *Archives of Pediatrics and Adolescent Medicine*, *158*, 792-796. doi: 10.1001/archpedi.158.8.792
- Fernyhough, C. (2008). Getting Vygotskian about theory of mind: Mediation, dialogue, and the development of social understanding. *Developmental Review*, *28*, 225-262. doi: 10.1016/j.dr.2007.03.001
- Fiese, B. H. (2006). *Family routines and rituals*. New Haven, CT: Yale University Press.

- Fiese, B. H., Foley, K. P., & Spagnola, M. (2006). Routine and ritual elements in family mealtimes: Contexts for child well-being and family identity. *New Directions for Child and Adolescent Development*, 2006, 67-89. doi: 10.1002/cad.155
- Fiese, B. H., & Parke, R. D. (2002). Introduction to the special section on family routines and rituals. *Journal of Family Psychology*, 16, 379. doi: 10.1037/0893-3200.16.4.379
- Fiese, B. H., Tomcho, T., Douglas, M., Josephs, K., Poltrock, S., & Baker, T. (2002). Fifty years of research on naturally occurring rituals: Cause for celebration? *Journal of Family Psychology*, 16, 381 – 390. doi: 10.1037/0893-3200.16.4.381
- Fulkerson, J. A., Story, M., Mellin, A., Leffert, N., Neumark-Sztainer, D., & French, S. A. (2006). Family dinner meal frequency and adolescent development: Relationships with developmental assets and high-risk behaviors. *Journal of Adolescent Health*, 39, 337-345. doi:10.1016/j.jadohealth.2005.12.026
- Gamson, J. (1997). Messages of Exclusion: Gender, Movements, and Symbolic Boundaries. *Gender & Society*, 11, 178-199. doi: 10.1177/089124397011002003
- Geertz, C. (1973). *The interpretation of cultures: Selected essays*. New York, NY: Basic books.
- Gindis, B. (1995). The social/cultural implication of disability: Vygotsky's paradigm for special education. *Educational Psychologist*, 30(2), 77-81.
- Grandin, T. (1995). *Thinking in Pictures, Expanded Edition: My Life with Autism*. New York, NY: Vintage Books.
- Gray, C. (2000). *The new social story book*. Arlington, TX: Future Horizons.
- Gray, D. E. (1997). High functioning autistic children and the construction of “normal family life”. *Social Science & Medicine*, 44, 1097-1106. doi: 10.1016/S0277-9536(96)00237-7
- Hobson, R. P. (1993). *Autism and the development of mind*. East Sussex, U.K.: Lawrence Erlbaum Associates
- Hoogsteen, L., & Woodgate, R. L. (2013). Centering autism within the family: A qualitative approach to autism and the family. *Journal of Pediatric Nursing*, 28, 135-140. doi: 10.1016/j.pedn.2012.06.002
- Hendy, H. M., Williams, K. E., Riegel, K., & Paul, C. (2010). Parent mealtime actions that mediate associations between children's fussy-eating and their weight and diet. *Appetite*, 54, 191-195. doi:10.1016/j.appet.2009.10.006
- Imber-Black, E., (2003). Ritual themes in families and family therapy. In E. Imber-Black, J. Roberts, & R.A. Whiting (Eds.) *Rituals in Families and Family Therapy*, 49 - 87. New York, NY: Norton & Company, Inc.
- Insel, T. R., & Fernald, R. D. (2004). How the brain processes social information: Searching for the Social Brain. *Annual Review Neuroscience*, 27, 697-722. doi: 10.1146/annurev.neuro.27.070203.144148
- Kantor, D., & Lehr, W. (1975). *Inside the family*. San Francisco, CA: Jossey-Bass.
- Korkiakangas, T. K., & Rae, J. P. (2013). Gearing up to a new activity: How teachers use object adjustments to manage the attention of children with autism. *Augmentative and Alternative Communication*, 29, 83-103. doi:10.3109/07434618.2013.767488

- Kozulin, A. (2003). Psychological tools and mediated learning. In A. Kozulin, B. Gindis, V.S. Ageyev, & S.M. Miller (Eds.) *Vygotsky's educational theory in cultural context* (pp. 15-38). Cambridge, UK: Cambridge University Press.
- Kozulin, A. (2012). Forward. In L.V., *Thought and language* (pp.ix – xxiii). Cambridge, MA: MIT Press.
- Kremer-Sadlik, T. (2004). How children with Autism and Asperger Syndrome respond to questions: A 'naturalistic' theory of mind task. *Discourse Studies*, 6, 185-206. doi: 10.1177/1461445604041767
- Larson, N. I., Neumark-Sztainer, D., Hannan, P. J., & Story, M. (2007). Family meals during adolescence are associated with higher diet quality and healthful meal patterns during young adulthood. *Journal of the American Dietetic Association*, 107, 1502-1510. doi: 10.1016/j.jada.2007.06.012
- Larson, R. W., Branscomb, K. R., & Wiley, A. R. (2006). Forms and functions of family mealtimes: Multidisciplinary perspectives. *New Directions for Child and Adolescent Development*, 2006, 1-15. doi: 10.1002/cad.151
- LaRossa, R., & Reitzes, D. C. (1993). Symbolic interactionism and family studies. In *Sourcebook of family theories and methods* (pp. 135-166). Springer US.
- Lee, L. C., Harrington, R. A., Louie, B. B., & Newschaffer, C. J. (2008). Children with autism: quality of life and parental concerns. *Journal of Autism and Developmental Disorders*, 38, 1147-1160. doi: 10.1007/s10803-007-0491-0
- Lockner, D. W., Crowe, T. K., & Skipper, B. J. (2008). Dietary intake and parents' perception of mealtime behaviors in preschool-age children with autism spectrum disorder and in typically developing children. *Journal of the American Dietetic Association*, 108, 1360-1363. doi: 10.1016/j.jada.2008.05.003
- Lord, C. (1984). The development of peer relations in children with autism. In F. J. Morrison, C. Lord, & D. Keating (Eds.), *Applied Developmental Psychology*, 165—230. Orlando, FL: Academic Press.
- Marquenie, K., Rodger, S., Mangohig, K., & Cronin, A. (2011). Dinnertime and bedtime routines and rituals in families with a young child with an autism spectrum disorder. *Australian Occupational Therapy Journal*, 58, 145-154. doi: 10.1111/j.1440-1630.2010.00896.x
- Meadan, H., Ostrosky, M. M., Triplett, B., Michna, A., & Fettig, A. (2011). Using visual supports with young children with autism spectrum disorder. *Teaching Exceptional Children*, 43(6), 28-35.
- Miller, P. (2002). *Theories of developmental psychology* (4<sup>th</sup> ed.). New York, NY: Worth Publishers.
- Neumark-Sztainer, Dianne, Melanie Wall, Jayne A. Fulkerson, and Nicole Larson. "Changes in the frequency of family meals from 1999 to 2010 in the homes of adolescents: trends by sociodemographic characteristics." *Journal of Adolescent Health* 52, no. 2 (2013): 201-206. doi: 10.1016/j.jadohealth.2012.06.004

- O'Brien, M. (2007). Ambiguous loss in families of children with Autism Spectrum Disorders. *Family Relations*, *56*, 135-146. doi: 10.1111/j.1741-3729.2007.00447.x
- Ochs, E., & Schieffelin, B. B. (1984). Language acquisition and socialization: Three developmental stories. In R. A. Shweder & R. A. LeVine (Eds.), *Culture theory: Essays on mind, self, and emotion* (pp. 276-320). Cambridge, England: Cambridge University Press.
- Ochs, E., & Shohet, M. (2006). The cultural structuring of mealtime socialization. *New Directions for child and adolescent development*, *2006*, 35-49. doi: 10.1002/cad.153
- Ochs, E., & Solomon, O. (2010). Autistic sociality. *Ethos*, *38*, 69-92. doi: 10.1111/j.1548-1352.2009.01082.x
- Ochs, E., Solomon, O., & Sterponi, L. (2005). Limitations and transformations of habitus in child-directed communication. *Discourse Studies*, *7*, 547-583. doi: 10.1177/1461445605054406
- Odom, S. L., Collet-Klingenberg, L., Rogers, S. J., & Hatton, D. D. (2010). Evidence-based practices in interventions for children and youth with autism spectrum disorders. *Preventing school failure: Alternative education for children and youth*, *54*(4), 275-282. doi: 10.1080/10459881003785506
- Oswald, R. F. (2001). Religion, family, and ritual: The production of gay, lesbian, bisexual, and transgender outsiders-within. *Review of Religious Research*, *43*, 39-50. doi: 10.2307/3512242
- Oswald, R. F. (2002). Who am I in relation to them? Gay, lesbian, and queer people leave the city to attend rural family weddings. *Journal of Family Issues*, *23*, 323-348. doi: 10.1177/0192513X02023003001
- Parkin, D. (1992). Ritual as spatial direction and bodily division. In D. de Coppet (Ed.) *Understanding rituals* (pp. 11-25). New York, NY: Routledge
- Raiten, D. J., & Massaro, T. (1986). Perspectives on the nutritional ecology of autistic children. *Journal of Autism and Developmental Disorders*, *16*, 133-143.
- Rappaport, R.A. (1979). *Ecology, meaning, and religion*. Berkeley, CA: North Atlantic.
- Reiss, D. (1971). Varieties of consensual experience. *Family Process*, *10*, 1-28. doi: 10.1111/j.1545-5300.1971.00001.x
- Richler, J., Huerta, M., Bishop, S. L., & Lord, C. (2010). Developmental trajectories of restricted and repetitive behaviors and interests in children with autism spectrum disorders. *Development and Psychopathology*, *22*, 55-69. doi: 10.1017/S0954579409990265
- Roberts, J. (2003). Setting the frame: Definitions, functions, and typology of rituals. In E. Imber-Black, J. Roberts, & R.A. Whiting (Eds.) *Rituals in Families and Family Therapy*, 3-48. New York, NY: Norton & Company, Inc.
- Rodger, S., & Umaibalan, V. (2011). The routines and rituals of families of typically developing children compared with families of children with autism spectrum disorder: an

- exploratory study. *The British Journal of Occupational Therapy*, 74, 20-26. doi: 10.4276/030802211X12947686093567
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York, NY: Oxford University Press.
- Schaaf, R. C., Toth-Cohen, S., Johnson, S. L., Outten, G., & Benevides, T. W. (2011). The everyday routines of families of children with autism: Examining the impact of sensory processing difficulties on the family. *Autism*, 15, 373-389. doi: 10.1177/1362361310386505
- Shakespeare, T. (2010). The social model of disability. In L.J. Davis (Ed) *The Disabilities Studies Reader*, 266 – 273. New York, NY: Routledge.
- Skeer, M. R., & Ballard, E. L. (2013). Are family meals as good for youth as we think they are? A review of the literature on family meals as they pertain to adolescent risk prevention. *Journal of youth and adolescence*, 42(7), 943-963. doi: 10.1007/s10964-013-9963-z
- Snow, C. E., & Beals, D. E. (2006). Mealtime talk that supports literacy development. *New Directions for Child and Adolescent Development*, 2006, 51-66. doi: 10.1002/cd.155
- Spagnola, M., & Fiese, B. H. (2007). Family routines and rituals: A context for development in the lives of young children. *Infants & Young Children*, 20, 284-299. doi: 10.1097/01.IYC.0000290352.32170.5a
- Suskind, R. (2014). *Life, animated: A story of sidekicks, heroes, and autism*. Glandale, CA: Kingswell.
- Thurm, A., Lord, C., Lee, L. C., & Newschaffer, C. (2007). Predictors of language acquisition in preschool children with autism spectrum disorders. *Journal of autism and developmental disorders*, 37, 1721-1734. doi.org/10.1007/s10803-006-0300-1
- Videon, T. M., & Manning, C. K. (2003). Influences on adolescent eating patterns: the importance of family meals. *Journal of Adolescent Health*, 32, 365-373. doi:10.1016/S1054-139X(02)00711-5
- Vygotsky, L. L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J. V. (2000). Intersubjectivity and alterity in human communication. In Budwig, I.Č. Užgiris, & J.V. Wertsch (Eds.) *Communication: An arena of development* (pp. 17-31). Stamford, CT: Ablex Publishing Corporaion
- Wing, L., Gould, J., & Gillberg, C. (2011). Autism spectrum disorders in the DSM-V: better or worse than the DSM-IV?. *Research in Developmental Disabilities*, 32, 768-773. doi: 10.1016/j.ridd.2010.11.003
- Wolin, S. J., & Bennett, L. A. (1984). Family rituals. *Family Process*, 23, 401-420. doi: 10.1111/j.1545-5300.1984.00401.x

Woodgate, R. L., Ateah, C., & Secco, L. (2008). Living in a world of our own: The experience of parents who have a child with autism. *Qualitative Health Research, 18*, 1075-1083. doi: 10.1177/1049732308320112

Table 1. Summary of articles that address autism, mealtimes, and family processes

Citation	Design	Sample	Data	Focus
Bagby, Dickie, & Baranek, 2012	Grounded theory	N = 12 parents (6 of children with ASD and 6 with TD)	Parent interviews	Autism Sensory experiences Family rituals and routines
Crespo, Santos, Canavatto, Kielikowski, Pryor, & Feres-Carneiro, 2013	Systematic review	39 empirical studies		Chronic conditions Family rituals and routines
DeGrace, 2004	Phenomenology	N = 5 families	Family interviews	Autism Family rituals and routines
Gray, 1997	Thematic analysis	N = 53 parents (from 33 families)	Parent interviews	“High functioning autism” Normalcy Family
Hendy, Williams, Riegel, & Paul, 2010	Multiple regression analysis	N= 236 children who attend a feeding clinic (50 with ASD, 84 with other special needs, and 102 with TD)	Questionnaire (parent report) Child’s BMI	Clinical Eating Disorders Health Parent behavior Mealtimes
Kremer-Sadlik, 2004	Ethnography Observational coding	N = 16 families	Video recorded dinnertime observations	“High functioning autism” Theory of mind Response to questions Autism Quality of life
Lee, Harrington, Louie, & Newschaffer, 2008	Bivariate and multivariate regression analysis	N = 65,755 children (483 with ASD, 6,319 with ADHD, and 58,953 with TD)	Survey (parent report)	



Lockner, Crowe, & Skipper (2008)	Descriptive analysis	N = 40 children (20 with ASD and 20 with TD)	Questionnaire (parent report) Food diary (parent report) Child's BMI Parent interviews	Autism Mealtimes Health
Marquenie, Mangohig, & Cronin, 2011	Thematic analysis	N = 14 Mothers	Parent interviews	Autism Mealtimes Family ritual and routines
Ochs & Solomon, 2010	Ethnography	N=37 children	Video recorded observations in multiple environments over several years	Autism Social coordination Communication Facilitators of interactions
Rodger & Umaibalan, 2011	Descriptive analysis	N = 22 children (12 with ASD and 10 with TD)	Questionnaire (parent report)	Autism Family rituals and routines
Schaaf, Toth-Cohen, Johnson, Outton, & Benevides, 2011	Phenomenology	N = 5 parents	Parent interviews	Autism Family rituals and routines Sensory challenges