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Language and Communication in Children With Autism: Do Research and Clinical Practice Converge in Denmark?

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Abstract

This paper takes a critical look at two assumptions about communication and language in children with autism spectrum disorder (ASD) which seem to exist in Denmark and to influence clinical practice. The two assumptions are: (1) Pragmatic language abilities are more or less absent in ASD, and (2) other aspects of language are more or less intact in ASD. Given recent evidence we argue that these assumptions ought to be reconsidered. We trace the origins of the assumptions and examine the clinical implications, with special reference to Danish clinical practice. The review is supplemented by case descriptions of Danish children with ASD, which illustrate the wide variability of ASD and its nuances. Possible specific factors leading to homogenized representations of the otherwise heterogeneous ASD population are proposed and discussed, including the nature of diagnostic manuals and the basic conditions for research. The paper concludes with an outlook for future clinical practice in Denmark.

Language and Communication in Children With Autism: Do Research and Clinical Practice Converge in Denmark?

The way we understand a disorder affects the way we intervene. Our understanding of autism spectrum disorder (ASD) has undergone many changes since autism was first described more than 70 years ago by Kanner (1943). Intervention has changed as well. However, it takes time for clinical practice to incorporate new knowledge.

The purpose of the present paper is to take a critical look at two assumptions about communication and language in children with ASD which seem to exist and influence clinical practice in Denmark. The two assumptions can be formulated as follows: (1) Pragmatic language abilities are more or less absent in ASD, and (2) other aspects of language are more or less intact in ASD. We trace the origins of these two assumptions, examine their clinical implications, and argue that the assumptions are based on outmoded theoretical ideas about autism, and should be revised given current empirical findings.

The language level of children with autism is one of the most critical prognostic factors (e.g., Kuhl et al., 2013; Mayo, Chlebowski, Fein, & Eigsti, 2013), and therefore, assumptions about and clinical practice towards the core developmental area of language and communication skills are especially important.

Autism

Autism is a neurodevelopmental disorder characterized by impairments within social and communicative development and by circumscribed, stereotyped, and repetitive behaviors (American Psychiatric Association, 2013; World Health Organization, 1992). Often, autism is accompanied by other disorders (sleep, eating, attention, mood, and anxiety disorders), significant developmental delay, or medical conditions such as epilepsy (Simonoff et al., 2008). The presence of co-morbid disorders plays an important role for prognosis. For instance, whether a child with autism has language impairment and/or mental retardation—and if so, to which degree—is critical for the child's possibilities of getting an education and for the level of independence in adult life (Billstedt, Gilberg, & Gilberg, 2005; Brynskov & Eigsti, 2010; Smith, Maenner, & Seltzer, 2012). Language abilities range from those seen in nonverbal children with very limited comprehension and production, formerly some 50% of the ASD population, and currently estimated from 10-15% (Gerenser, 2009) to 30% (Anderson, Liang, & Lord, 2014) of the ASD population, to those individuals with language abilities in the normal range (Kim, Paul, Tager-Flusberg, & Lord, 2014). With regard to IQ,

the span is similar: Between 40% and 80% of the ASD population have an IQ below the normal range (Levy, Mandell, & Schultz, 2009). Most individuals with autism show lifelong impairments (Rutter, 1970). However, recent studies on intensive intervention have documented that some children show outcomes with a loss of diagnosis and completely age-appropriate functioning, called an “optimal outcome” (Fein et al., 2013; Orinstein et al., 2014).

Thus, there is heterogeneity in the population, in level of functioning, IQ and language level, each of which contributes to long-term outcomes (Levy et al., 2009). For this reason, some researchers use the terms “high-functioning” and “low-functioning” to distinguish between children with IQ and language within or above the normal range (high-functioning) and below the normal range (low-functioning), which we will also do.

Based on current research findings, and in contrast with earlier conceptualizations, it is now central to the understanding of autism that it is heterogeneous, overlapping with typical development, and changing during development (Bailey, 2008). Furthermore, and maybe most critically, there has been a shift from what has been conceptualized as a “category account” to a “dimensional account” of autism (e.g., Gernsbacher, Geye, & Weismer, 2005). This shift is summarized by Tuchman and Rapin (2006, p. 325): “The research community, but not yet most of the public, now understands that autism is not a categorical diagnosis, inasmuch as all of the three behavioral domains that define it are dimensional.” By emphasizing that the behavioral domains are dimensional, these authors stress that the difficulties within each of them come in degrees. The combination of heterogeneity and overlap with typical development is incompatible with a category account in a further sense: There is a larger difference between very low-functioning autism and high-functioning autism, than there is between high-functioning autism and typical development (Boucher, 2009).

Assumptions about language and communication in autism

Danish clinical practice seems to be guided by some assumptions about language and communication in individuals with autism which do not fully take into account current research findings that autism is heterogeneous, dimensional, and changing during development. As we will demonstrate below, these assumptions are present in some widely read Danish books and papers by professionals, as well as in the Danish national guidelines for autism intervention. This section takes a critical look at these assumptions, presents

current research, and discusses the clinical implications with special reference to Danish clinical practice. To illustrate the variability of autism, the presentation will be supplemented by examples and case descriptions from clinical experiences with a sample of 30 children with ASD, aged 4-6 years, from Region Midtjylland (Central Denmark Region) and from interviews with their parents. Note that these clinical examples are included as anecdotal evidence for illustrative purposes only, and do not represent an empirical study as such.

Assumption 1: Pragmatic language abilities are more or less absent in ASD

The use of verbal language for communicative purposes is called the pragmatics of language (Ninio & Snow, 1996). In some of the most widely read Danish descriptions of pragmatics or verbal communication in autism, impairments are described as absolute, and similar in all children with autism. This assumption is evident in a paper published in *Dansk Audiologopædi*, a publication aimed at speech-language professionals. Gammeltoft (2009, p. 18) states that “a speaking child with autism has the same fundamental difficulties communicating as a nonverbal child” [translated from Danish]. Similarly, a best-selling Danish book on autism states that “it is not simply a question of words. Most often, children with autism do not understand what communication can be used for” (Peeters, 1994/2007, p. 89; translated from Danish). Describing one aspect of pragmatics, the understanding of metaphors and non-literal language, Peeters notes: “If the *normal* meaning of words is changed, children with autism become very confused” (1994/2007, p. 78) and “typical children love to turn the world upside down, but for children with autism, this is terrifying” (1994/2007, p. 79; translated from Danish). Neither of these publications are peer reviewed empirical papers; however, among speech-language pathologists and teachers, respectively, they are the most widely read guides for clinical practice in language and communication in children with ASD in Denmark. The paper by Gammeltoft (2009) is the only Danish paper for speech-language pathologists that addresses their role for serving children with autism. The Danish translation of the book by Peeters, which is based on the contents of the one-week TEACCH course from the 1980s, has been published in eight printings and is usually given to professionals new to the autism field, as the introductory book (J. Beyer, personal communication, December 8, 2013).¹

¹ J. Beyer has worked within the Danish autism field for decades, and at the time of communication, was the director of Department for Cognitive Disabilities and Brain Injury, The Danish National Board of Social Service.

Current research on pragmatics in children with ASD.

Pragmatics is the most studied aspect of language in ASD, and it is well documented that pragmatic difficulties in ASD are universal (e.g., Tager-Flusberg et al., 2005). Children with autism typically score lower than children with typical development on tests of pragmatics, including idiom comprehension (Norbury, 2004), figurative language (Happé, 1993), conversational skills (Surian, Baron-Cohen, & Van der Lely, 1996), narrative skills (Norbury & Bishop, 2003), or on more general measures of pragmatic skills such as on the Children's Communication Checklist (McCann, Peppé, Gibbon, O'Hare, & Rutherford, 2007). However, a closer look at the studies reveals that there is wide variability in the autism groups, and that some of the children with autism score at level with the children without autism. This is the case in all of the above-mentioned studies of pragmatics in children with autism. Furthermore, some studies fail to find differences within some areas of pragmatics. For instance, a recent study examined whether children and adolescents with high-functioning ASD were able to vary and interpret language used for requests along a continuum from "polite" to "bossy." The results showed that participants with ASD were as adept as controls in both producing and judging polite and bossy requests (Volden & Sorenson, 2009).

As is evident from the studies mentioned above, there is wide individual variability in the pragmatic abilities of children with ASD. The degree of pragmatic impairment is closely related to the level of functioning and language level (compare e.g., Norbury & Bishop, 2003 to Surian et al., 1996). Even though most individuals with autism have a slower and deviant development of pragmatics, and most never reach an adult level, pragmatic language skills are not absent or non-functioning; rather, the children can be said to be impaired to different degrees, but continuously developing (Gernsbacher et al., 2005).

Even in typical development, the domain of pragmatics shows a long developmental trajectory, extending into school-age and beyond (Ninio & Snow, 1996); there are measurable differences in pragmatics for a three-year-old and a 10-year-old child. A three-year-old child may not understand, or may be terrified by, a statement that "the old witch will be coming tonight", whereas a 10-year-old will be able to understand that "the old witch" is a joking reference to her grandmother. Similarly, given the fact that pragmatics develop in children with ASD too, it is more likely that younger and lower-functioning children will be confused or frightened when non-literal language is used, whereas this may not necessarily be the case for older and higher-functioning children with ASD as claimed by Peeters (1994/2007).

Gammeltoft's (2009) statement that communicative difficulties are the same in nonverbal and verbal children with autism leaves the impression that the dimensional aspect of the disorder is not taken into account. Even though most verbal children with autism do experience difficulties with pragmatics, these difficulties are not the same as those experienced by nonverbal children with autism. Since every part of language is important for pragmatics, and every deviance or lack of development within either area of language will hamper pragmatics (Perkins, 2007), the communication will, all things being equal, be more impaired in nonverbal than verbal children.

Pragmatics in Danish children with ASD.

In line with current research, there was a large heterogeneity of pragmatic skills in the 30 Danish children in our clinical sample. Some of the children demonstrated several of the most typical pragmatic difficulties. For instance, some of them spent too much time talking about their interests, with little concern for the adult's interest in the topic; others were perseverative in their comments. In these children we saw clear demonstrations of pragmatic impairments despite an otherwise advanced language level. However, these differences were not constant within a given child; one boy who had been talking at length about a favorite topic later took into account his conversational partner's perspective, asking her for *her* opinion on something.

In addition, some of the children showed clear manifestations of pragmatic competence. They were able to follow turn-taking rules and provide appropriate amounts of information in the conversations. Some of the most high-functioning children spontaneously, and non-echolalically, in novel situations, used the Danish pragmatic marker "*jo*" which translates to "as you know," a subtle way of perspective-taking. In short, although pragmatic abilities were impaired in the children, they were not absent.

Clinical implications of Assumption 1.

One important reason why our understanding of autism must reflect state of the art of scientific knowledge is that understanding guides expectations. Expectations have been shown to influence life outcomes, as in the so-called *Rosenthal effect*, in which low expectations lead to lower outcomes (Rosenthal, 1994). Therefore, it is important to know what can realistically be expected of an individual child.

Perhaps the most critical implication of the absolutistic descriptions of the communicative and pragmatic impairments in autism is that they may lower expectations and make 'giving up' seem like a rational choice. In Denmark, the first and only recommendation for clinical practice within the autism field, called "The National Autism Plan" (Videnscenter for Autisme, 2006-2007) draws heavily from Peeters' (1994/2007) influential descriptions of the children's poor understanding of communication, and more specifically, of the confusion and fright the children will experience if they are exposed to non-literal language. The National Autism Plan explicitly recommends that parents and professionals avoid using metaphors and sarcasm with the children (p. 40). Unfortunately, this recommendation may deprive children of the opportunity to learn about metaphors, sarcasm, and non-literal language. A more promising intervention strategy, aware of difficult pragmatic domains, would, in our view, begin with a thorough analysis of the precise level of pragmatic skills in the individual child, so that intervention can start at a point where learning is within reach and intervention does not become stressful.

Assumption 2: Other aspects of language are more or less intact in ASD

Whereas some descriptions of autism on the one hand tend to exaggerate pragmatic language difficulties in autism, presenting them as categorical and absolute, many tend on the other hand to overlook impairments within other areas of language functioning.

In Peeters (1994/2007) there is only a chapter on *communication* (chapter 3), and no chapter on *language*. While that chapter does mention that some children do develop language whereas others do not (e.g., on pp. 77, 81), there are no descriptions of the importance of the language level, and no suggestions regarding how to intervene. Rather, the chapter suggests that *communication* is impaired, and the only recommendation is to introduce visual communication systems and avoid exposing the children to language they do not already understand.

Current research on other aspects of language in children with ASD.

As noted by Tager-Flusberg (2000), research on language in autism during the 1980s and 1990s, focused almost exclusively on pragmatics, at the cost of the other areas. However, it is well documented that most children with autism show impairments within these areas too. In one of the largest investigations to date, including a total of 426 children with autism, Rapin and Dunn (2003) found that 65% had language impairments similar to those seen in

children with Specific Language Impairment (sometimes called dysphasia), despite the fact that children with severe mental retardation were excluded. In another study of 84 verbal children with autism, 75% could be characterized as having language impairments (Kjelgaard & Tager-Flusberg, 2001). However, the variability is substantial. All areas of language seem to be vulnerable to impairments, including structural language (syntax and morphology) (Boucher, 2012; Eigsti, Bennetto, & Dadlani, 2007). Even though some studies have found that articulation seem to be spared (e.g., Kjelgaard & Tager-Flusberg, 2001), others have found that many children have impaired articulation, even some of those children who have unimpaired comprehension (Rapin, Dunn, Allen, Stevens, & Fein, 2009).

The reason why some accounts speak of the pragmatic impairments as the “greatest weakness” (e.g., McGregor et al., 2012, p. 35) may be that these impairments are universal in individuals with autism. In a categorical account, this aspect will seem to be the most important one to mention. However, as noted by Tager-Flusberg (2000), the other aspects must be considered too, even though they are not unique to the population.

Autism is heterogeneous, and the common features need not be the most central in the individual child. Specifically, in children with severe language impairments, impairments within other aspects of language can be just as serious a weakness as the pragmatic impairments. In fact, in children with the most severe language impairments, their impairments within other aspects of language are most likely even more clinically significant, since very impaired and delayed language has more detrimental effects on functioning and prognosis than pragmatic impairments in isolation (Newschaffer et al., 2007). An individual perspective is critical.

Other aspects of language in Danish children with ASD.

The 30 Danish children with autism in our clinical sample presented with many different language impairments over and above their pragmatic impairments, at all levels, from so-called nonverbal children to children with language at level with their typically developing peers. In line with the literature, the majority had difficulties in grammar and semantics, and some with articulation. Nine of the 30 children had no early language delay (defined by production of single words by age two and sentences by age three) and within most areas of language they were at level with their typically developing peers.

The majority of the children produced short sentences with fewer words as well as morphemes compared to typically developing children. For instance, some of the children,

four to six years of age, omitted the subjects in the sentences, as is characteristic of the syntax of typically developing two-year-old Danish children (Hamann & Plunkett, 1998).

Others struggled with early-learned morphological markers, such as singular and plural marking on nouns or adjectives. For instance, a five-year-old boy playing with soap bubbles with the adult, pointed to a big soap bubble and enthusiastically exclaimed: "*Se, en sæbebobler!*" ("Look, a soap bubbles!") Another five-year-old boy was asked about a picture of an ear of a corn, and replied: "*Det' en lækre majs*" ("That's a delicious corn", with plural or definite marking on the adjective; both are incorrect). These children showed a clear drive to share their experiences, but had a limited knowledge of morphology.

In some children, phonological, grammatical or semantic impairments severely constrained their ability to communicate, despite a drive to do so. One five-year-old boy had such severe articulation impairments that most of his words during free-play were incomprehensible. Sometimes the number of syllables could be heard, but not their sounds. Another five-year-old boy who had just received a plate with some freshly cut pieces of apple handed one piece to the adult while producing a nasal sound, and afterwards took a piece himself, saying "*og Mads*" ("and Mads")². From the situation it was obvious that he meant to say: "*Til dig ... og til mig*" ("For you...and for me") or "*En til dig ... og en til mig*" ("One for you...and one for me"), but he possessed neither personal pronouns nor prepositions, so only "and" and his own name could be expressed verbally.

In the less severe end of impairments, a six-year-old girl presented with a combination of articulation impairments and unimpaired comprehension previously described by Rapin et al. (2009). She had a high IQ and a very large receptive lexicon, but impaired articulation of certain sounds which made conversation less fluent.

Clinical implications of Assumption 2.

A category account of autism, with a focus on the impairments universally affected, may lead us to overlook children's specific intervention needs. In Denmark, we seem to focus on pragmatic and communicative impairments at the expense of semantic and structural language deficits. The National Autism Plan's recommendations for clinical practice within this area are drawn from an account from the 1980s (Peeters, 1994/2007) which is increasingly outdated. In the National Autism Plan, there are no recommendations for verbal

² Not his real name.

language interventions, and speech-language pathologists are given a minimal role. These recommendations seem to have a powerful influence: In our sample, only five of the children had received intervention specifically targeting language, and each of these five interventions was developed outside of their regular intervention plan. One child was part of an Applied Behavior Analysis (ABA) pilot project in which language intervention was an integral part. Another child had received a three-month language intervention program because he was initially misdiagnosed with Specific Language Impairment; if he had been diagnosed with autism at that time he would have been excluded from the program. A third child had received a three-month program because his parents had filed a successful complaint against the local authorities. The last two children received ABA intervention because their parents paid out of pocket.

As described here from parent and clinician report, language intervention is not typically provided to preschool children with autism in Central Denmark Region. While such intervention could be standard practice in other parts of Denmark, this does not seem to be the case. A recent study surveyed the use of early intervention for young children with autism spectrum disorders across 18 European countries. It found that, in Europe as a whole, speech and language therapy was the most frequently provided intervention for young children with autism, received by 64% of children; in comparison, only 22% of Danish children received speech and language therapy, the second lowest percentage in the 18 European countries (Salomone et al., 2015).

There is no doubt that the dearth of language interventions in Denmark reflects in part the significant resources required to provide such treatment. However, the Danish approach differs from community standards in other European countries as well as in the United States, where verbal language is included as an important target for early intervention (e.g., Tager-Flusberg et al., 2009; Virués-Ortega, 2010; Salomone et al., 2015), and speech-language pathologists are central to the early intervention process (Smith & Dillenbeck, 2006).

Discussion

The transfer between research and practice is always difficult. However, there may be specific factors that make it even more difficult for Danish clinical practice to embrace the understanding of autism as heterogeneous, dimensional and changing over development. We discuss these factors here.

Diagnostic manuals

First, diagnostic manuals are by definition categorical. They rely on the notion that diagnostic determinations – is a child affected by a certain disorder or not? – are possible, and that each disorder can be clearly distinguished from health and from other disorders. There are many advantages to such a category-based system; for instance, it facilitates decision-making and it is useful for research. The unfortunate consequence of such simplification, however, is that disorders like ASD are described as more homogeneous than they actually are.

The diagnostic criteria have changed over the years in order to incorporate new knowledge. Thus, in the ICD-10 (World Health Organization, 1992) and the DSM-IV (American Psychiatric Association, 1994), the previous version of DSM, the idea of a spectrum was developed in order to include more mild diagnoses of Asperger Syndrome and PDD-NOS. However, the category of Childhood Autism was exceptionally heterogeneous with significant overlap between high-functioning Autism, Asperger Syndrome and PDD-NOS (Klin, Pauls, Schultz, & Volkmar, 2005). To address this fact, in the DSM-5 (American Psychiatric Association, 2013), these distinct diagnoses have all been collapsed into one single category, Autism Spectrum Disorder, along with a continuous measure of severity. Clinicians must now specify whether an individual has impaired language and intelligence, and how severe the disorder is, using three different levels. These three different degrees are of course just new categories, but the very fact that the dimensionality has been explicitly incorporated is an indication of the importance of the heterogeneity, and of acknowledging that autism exists in degrees. The incorporation of a dimensional approach to ASD into the DSM-5 reflects a broader shift in the conceptualization of mental illness, applying to essentially all diagnoses, though the initial goal of making diagnosis into a more generally continuous or dimensional process proved very difficult. As such, most diagnostic determinations bow to a more categorical notion of disorder, as is true for ASD (Volkmar & McPartland, 2013).

In Denmark and most other European countries, the ICD-10 (World Health Organization, 1992) is used instead of the DSM-5, and in the ICD-10 the diagnostic criteria of ASD still exist without the dimensional aspect, giving the impression that the disorder is categorical and homogeneous. The ICD-11 will most likely incorporate recent empirical

findings on autism in a way similar to the DSM-5. This revision is expected in 2017 (World Health Organisation, 2015).

Variability as a problem within research

Even research itself can sometimes convey a simplified perspective, because of its main purpose of finding common features, similarities, and types. This is true for qualitative as well as quantitative studies, and the result is a kind of “homogenization” of the population, in several ways.

The roots of autism research are the famous qualitative case studies by Kanner (1943). As noted by Draaisma (2009), Kanner described his cases with the purpose of illustrating which traits constitute the *essence* (Kanner) of autism. Thus, these studies tend to homogenize autism, and may fall into overgeneralization.

Interestingly, what has been considered the prototype of autism has changed over the years, reflecting a general shift in study participants. This shift followed the change of diagnostic criteria in the beginning of the 1990s when the autism spectrum was broadened to include Asperger Syndrome and PDD-NOS, diagnoses primarily given to people with high-functioning autism. Prior to this time, the research literature was primarily based on studies of participants with low-functioning autism (e.g., Baron-Cohen, Leslie, & Frith, 1985). After the broadening, more studies have increasingly recruited participants with high-functioning autism (e.g., Castelli, Frith, Happé, & Frith, 2002). In general, the older the research literature, the less able the participants.

Today, international autism research generally involves quantitative studies which compare group mean scores for ASD versus some control group. Results showing a statistically significant difference between two groups tend to give the impression that one of the groups possesses the skill in question, whereas the other does not. However, most often the one group simply possesses the skill to a (statistically significantly) larger degree than the other, and even though this can be deduced if score ranges and effect sizes are available, this information is not necessarily intelligible for a practitioner. Second, group means often include large within-group differences, especially in the autism group, with some of the children with autism scoring at level with the children without autism; and these facts are not always communicated clearly. Third, group comparisons often exclude outlier subjects. Furthermore, the most low-functioning children are often excluded from studies, because they cannot complete the study's tasks or because it is difficult to match participants with an

appropriate control group with typical development. As such, some homogenization of the samples has already occurred before the results are computed.

These are basic and necessary terms of mainstream research, and researchers conducting this kind of research are well aware of the fact that the population is more diverse and the skills more dimensional than can be seen from their studies. However, their emphasis is often on common features, rather than the variability of the population, and some researchers are more thorough than others in their efforts to make the evidence of the variability come across. As Rogers and Williams (2006, p. xi) note, “autism tends to be seen as a more homogeneous entity by the basic scientists who approach the disorder and are sometimes inclined to define it as an absence of some rather specific cognitive ability that is of particular interest to the individual researcher.”

Certainly, some researchers are very carefully describing the variability in their samples, and increasingly researchers have been encouraged to highlight the heterogeneity of their participants by including scatterplots (in addition to simple means), displaying confidence intervals, and reporting range data as well as means (as argued, for example, by Waterhouse, 2013). Note too, that researchers differ with respect to what words they use to characterize the impairments of children with autism. Some use words like “*mindblind*,” (emphasis added; Baron-Cohen, 1997) and “*broken* mirror neuron system,” (emphasis added; Ramachandran & Oberman, 2007). These words suggest an absolute absence of a skill, instead of degrees of impairment, accentuating the notion that autism represents a distinct category from typical development. As we have discussed above, this notion is incompatible with current knowledge.

Many of these problems diminish gradually, following the changes in the understanding of autism, but in Denmark, much of the available translated literature on autism stems from a time when it was still common to include primarily low-functioning participants in the studies, to focus less on developmental change, and to have faith in single-cause explanations (e.g., Baron-Cohen, 1998; Frith, 1992; Peeters, 1994/2007). The focuses of some of the authors of this literature have developed in accordance with the general change in the understanding of autism. Unfortunately, we still lack Danish translations of their more recent works.

Future Danish clinical practice

In Denmark, the category account still seems to drive clinical practice regarding language and communication in children with autism. It is implemented in the National Autism Plan and its recommendations for intervention. It also appears in the most read books on autism in Danish. As described above, the consequence for pragmatics or verbal communication may be that children's skills are underestimated, because they are assumed to be absent, rather than impaired or delayed. The consequence for the other areas of language is unfortunate too: impairments may be overlooked, in part because of the emphasis on pragmatics, and in part because the categorical view ignores *degrees* of impairments with the possibility of mild structural language delays.

Despite these concerns there are reasons for optimism: Danish clinical practice appears to be changing slowly, following descriptions of the new understanding of autism. On the national level, *Socialstyrelsen* (The Danish National Board of Social Service) recently published a new set of recommendations for clinical practice (Socialstyrelsen, 2014) which explicitly focuses on variability and mentions methods to address the language difficulties in the population. These new recommendations are brief and cannot fully replace the National Autism Plan, but clearly are a move in the right direction. At the Department of Psychology at Aalborg University (in Northern Denmark) the first Scandinavian university clinic for developmental communication disorders, called *Børnesprogs klinikken* (the Child Language Clinic) was recently established. This clinic provides free interdisciplinary evidence-based intervention for children with different disabilities, including ASD, with a focus on communication and language. Across all Danish municipalities, the offices of *Pædagogisk-Psykologisk Rådgivning* (Pedagogical-Psychological Counseling) include both psychologists and speech-language pathologists and therefore possess the optimal organizational setting for interdisciplinary work on language and communication in children with ASD.

We are hopeful that this kind of interdisciplinary intervention, and greater attention to individual variability in communication and language skills in children with autism, will become more general and common in the years to come.

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