



# Commentary on Social Skills Training Curricula for Individuals with ASD: Social Interaction, Authenticity, and Stigma

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Published online: 23 November 2017  
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## Abstract

By teaching social rules thought to be necessary for social competence, social skills training (SST) curricula aim to improve indicators of well-being for individuals with autism spectrum disorder (ASD), such as the attainment of meaningful friendships. However, several recent meta-analyses indicate that SST curricula may fall short of these goals. We offer an explanation for these potentially null effects by illustrating how the content of these curricula diverge from empirical evidence derived from disciplines that take social interaction as their object of study. Next, we argue that employing the social rules advocated for by SST curricula may work counterproductively by inhibiting authenticity, while at the same time increasing stigma associated with ASD. We close with suggestions for future intervention research.

**Keywords** Autism spectrum disorder · Social skills · Social-cognitive interventions · Conversation analysis · Authenticity · Stigma

## Introduction

Autism spectrum disorder (ASD) is a condition characterized by differences in social-communication and restricted and repetitive behavior or interests (American Psychological Association 2013). Both of these domains contribute to an atypical social profile that can include features such as difficulty in reciprocating or initiating social overtures, perseveration on topics of personal interest, and difficulty in interpreting non-literal speech such as sarcasm. These differences are thought to be associated with decreased social inclusion and difficulty in forming peer relationships, outcomes which can persist or worsen through adulthood (Magiati et al. 2014; Petrina et al. 2014). At least in the UK, a variety

of stakeholders including autistic<sup>1</sup> adults, family members, practitioners, and researchers rank improvement in the life skills and support systems for the needs of autistic people as high research priorities (Pellicano et al. 2014). Interventions that address and support core difficulties in social interaction and relatedness, which are thought to impact long-term well-being, can therefore be considered a high priority.

Motivated by attempts to remediate differences in social interaction, a popular intervention modality is the use of social skills training (SST) curricula (e.g., Laugeson and Frankel 2010; Winner 2002, 2006). These approaches involve direct instruction of social skills delivered in a manualized sequence, which is often provided in clinical- or classroom-based group settings. Role play, strategy

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<sup>1</sup> We use 'identity-first' language as opposed to 'person-first' language as there is evidence that this is the preference of many autistic adults (Kenny et al. 2015). Lydia Brown, an autistic writer and activist, has also written extensively about this issue (e.g., Brown 2011), specifically with regards to the marginalization that may result from using person-first language.

rehearsal, and feedback are critical components of these interventions (Reichow et al. 2013). SST curricula are generally targeted to children and adolescents with ASD with average or above average intelligence.<sup>2</sup> Recent research has suggested that social competence can improve as a result of these interventions (e.g., Laugeson et al. 2012). Children and adults with ASD often prefer structure, sameness, and explicit learning, which can make direct instruction an appealing mode of uptake for social knowledge. Additionally, these interventions are available in manualized form, and are easily integrated into classroom or clinical settings where direct instruction and group learning formats are pervasive (e.g., Laugeson and Frankel 2010). However, several recent research syntheses have suggested caution in drawing conclusion about the efficacy of these programs (e.g., Gates et al. 2017; Reichow et al. 2013).

The purpose of this paper is to critically examine the content of SST curricula, and discuss potential ramifications of their widespread use in schools and clinics. First, we argue that current SST curricula do not actually reflect what we know about social interaction. To situate this claim, we summarize the theoretical rationale and empirical evidence for SST curricula, which is rooted in the social-cognitive tradition. We then review research from sociolinguistics and conversation analysis (CA), two approaches that take social interaction (as opposed to social cognition) as their object of study, and offer a comparison between the empirical descriptions of social interaction from these traditions on the one hand, and social interaction as construed by SST curricula on the other hand. Second, we propose that there may be unintended negative consequences when social processes that are implicit and dynamic are taught as explicit, stable, and normative social rules. Specifically, we outline a hypothesis that adherence to the social rules described in SST may stifle psychological, relational, and interactional authenticity while increasing stigma. We close by offering avenues for future research and professional practice in light of these critiques.

To illustrate our claims, we focus on two of the most widely known curriculum materials available; PEERS (Laugeson and Frankel 2010) and Social Thinking/I LAUGH (Winner 2002, 2006). For both of these interventions, the developers claim that participation will result in improved relationships with others, through increased knowledge of social rules and expectations (Laugeson and Frankel 2010; Winner 2006). PEERS has multiple iterations designed for

different age groups, but we focused on the 16-week, parent-assisted curriculum for adolescents. The Social Thinking/I LAUGH programs are designed for school-aged children, and occur over the course of a traditional academic semester. Both of these interventions involve didactic instruction as well as role-play, and both offer detailed manuals for adult interventions to use as a guide for each session.

## Theoretical and Empirical Grounding of SST Curricula

Social cognitive interventions have continued to grow in prominence, and their common theoretical roots can be traced back to a highly influential paper showing children with ASD are less likely to pass false belief tasks than a typically developing comparison group (Baron-Cohen et al. 1985). This finding is taken as evidence that children with ASD have an impoverished ‘Theory of Mind’ (ToM). ToM is the ability to infer and predict the mental states of others, and this ability is thought to be fundamental to understanding other’s behavior within social interactions. Findings showing ToM difficulty in ASD have been extensively replicated with several paradigms, and with populations with a variety of symptom profiles (Leekam and Perner 1991; Leslie and Frith 1988; Ozonoff and Miller 1995; Perner et al. 1989). Although children with ASD with advanced verbal abilities ultimately succeed on false belief tasks (Fisher et al. 2005), researchers attribute the sustained difficulties in social communication and interaction to ToM impairment (Scheeren et al. 2013). More recent theoretical approaches have downplayed the role of cognitive operations on social interaction in ASD, focusing instead on interactional and relational processes (Bottema-Beutel 2017; De Jaegher and Di Paolo 2007; Hobson 1999). However, the ToM approach continues to be a major influence on intervention designs for individuals with ASD.

Numerous SST curricula are now available that claim to improve social competence and peer relationships by increasing the social knowledge and skills thought to derive from ToM (Begeer et al. 2010; Hess et al. 2008). Although several studies have examined the efficacy of SST interventions, findings have been mixed, and both internal and external validity of the study designs has been questioned (Jonsson et al. 2016; Rao et al. 2008; Reichow and Volkmar 2010; Reichow et al. 2013; White et al. 2007). White et al. (2007) reviewed 14 group-based SST programs for children and adolescents with ASD and found that the majority of studies did not include a control group, and the ones that did tended not to use random assignment. Some target skills showed improvement (e.g., facial recognition and greetings), but many studies did not report effect sizes and there was no evidence that social skills learned were applied in the

<sup>2</sup> Applied behavior analysis interventions, which are in wide use for children with ASD who have significant intellectual impairments, use a different approach than the SST curricula we discuss in this commentary, but share similar (and in some cases more extreme) problems in regards to an over-focus on teaching pre-defined behaviors that are not easily adapted to real life social contexts. A more detailed discussion of these issues can be found in Milton (2012a).

child's everyday life. Similar findings have been replicated in other reviews. Reichow et al. (2013) meta-analysis of five randomized control trials (RCTs) of SST group interventions showed weak evidence of improved social competence, friendship quality, and popularity. The SST interventions did not have a significant effect on emotional recognition and child depression, and showed limited evidence of influence on loneliness. Fletcher-Watson et al. (2014) reviewed and meta-analyzed 22 randomized and quasi-randomized studies of ToM interventions, and found that although some studies were successful in teaching ToM skills, generalizability to other contexts, maintenance of the skills, and developmental effects on related skills were not supported. Lastly, Gates et al. (2017) concluded in their meta-analysis of 19 RCTs (some of which were formats other than SSTs) that interventions effects were restricted to improvements in knowledge of the social rules taught within the interventions, and did not extend to changes in social behavior.

In sum, while there are some benefits of SST curricula reported in single studies, meta-analyses and systematic reviews have concluded that there is a general lack of several critical indicators of effectiveness, including: generalizability and maintenance of the skills learned, robust research designs such as RCTs, and appropriate outcome measures to identify effectiveness on meaningful outcomes (Bishop-Fitzpatrick et al. 2013; Rao et al. 2008; Reichow and Volkmar 2010; Seida et al. 2009; White et al. 2007). One particularly important consideration for these studies is that, even for those with the best research designs, parent-report assessments where the parent is not blind to treatment allocation are widely used (Gates et al. 2017; Gillies et al. 2013). Recent evidence suggests that parent-report measures are strongly influenced by the placebo effect in this population (Jones et al. 2017). Reichow et al. (2013) proposed that the lack of convincing results could be due to features of the participants, the particular intervention programs, or because SST curricula more generally may not be able to deliver on claims of improving social competence, friendships, and longer-term well-being.

## Rethinking the 'Skills' in SST Curricula

Despite the prevalence of research into SST curricula in recent years, there is almost no formal inquiry into the content of these programs. If SST curricula are in fact ineffective in increasing social competence in individuals with ASD, a possible explanation is that they are not situated in empirically and theoretically grounded research on social interaction. This is concerning, as there are robust descriptions of interactional processes on which these interventions could be based, such as those found in sociolinguistics, linguistic anthropology, the ethnography of communication,

and CA (See Bottema-Beutel 2017 and Sterponi et al. 2015 for detailed descriptions of how these paradigms can advance research on ASD). These approaches have been used to examine interaction in a variety of social situations, ranging from mundane, everyday encounters (e.g., telephone conversations and dinner table gatherings) to institutional contexts (e.g., classrooms and doctor's offices). Analysis involves examination of interactional exchanges in fine-grained detail, usually involving transcriptions of video-recorded, naturally occurring encounters. Analysis is focused on how the participants themselves make sense of the unfolding interaction. In CA, particular attention is paid to the sequence organization of talk, which has implications for how speakers allocate turns at talk, organize repair in instances where talk may break down, ascribe actions to others' talk, and formulate actions within their own talk (see Schegloff 2007 for an introduction to this topic). In these approaches, the social context is considered a constitutive component of shared sense-making rather than a post-hoc modifier of contextually-independent meaning (Hanks 1996). When analyzing social encounters in this way, the very concept of stable social rules becomes problematic. Interactions are managed according to locally and contextually construed orientations to what is being done within the social interaction at a given point in time, not to a pre-defined set of rules. As such, interactions can take on a variety of shapes and trajectories that are nearly impossible to specify in advance.

Rather than requiring strict adherence to social rules, social interactions involve orientation to 'top-down' constraints that operate in tandem with 'bottom-up' processes (Bottema-Beutel and White 2016; Ochs et al. 2004). Top-down constraints consist of culturally specific expectations and frames of reference that allow interaction partners to ascribe social actions to their interaction partner's utterances or 'interactional moves' (Ochs et al. 2004; Sacks 1987). In contrast, bottom-up processes involve negotiating and reconfiguring social norms within interactions. This may include purposeful subversion of expectations, and generating unique interactional repertoires that are contextually specific (Bottema-Beutel and White 2016; Ochs et al. 2004).

The extent to which top-down constraints or bottom-up processes are relevant varies depending on the context. Constraints may be more prevalent in institutional contexts, where somewhat stable social norms guide social behavior. For example, classrooms are usually governed by explicit expectations that students will not speak if the teacher is giving instructions, will remain seated unless they are given permission to do otherwise, and will engage with instructional activities. Yet, even social behavior that is highly regulated by institutional norms has a bottom-up, emergent character, and subverting top-down constraints can be a way of solidifying affiliations with others. Tannen and Wallat

(1987) describe a medical context where a pediatrician is interacting with a child. In this institutional setting, the doctor may engage in a variety of speech registers; he may talk formally and technically when relaying vital signs to the nurse, but may switch to an informal register when interacting with the child by asking, “Do you have a monkey in your ear?” (Tannen and Waller 1987, p. 209). The expectations for formal registers are present and recognized by the participants in the interaction, and it is precisely the subversion of these expectations that creates a humorous, playful interactive frame.

Our overriding concern, which we discuss in detail in subsequent sections, is that these nuances of context and process are largely absent in SST curricula. All aspects of social interaction are construed as being guided by a specified set of top-down rules, and bottom-up processes are left completely by the wayside. Proponents would likely argue that this simplification is by design, as individuals with ASD have notable difficulty with nuance and contextual variation, and are better equipped to follow explicit top-down rules. We question, however, whether this construal will actually result in improved social competence, social experiences, or social relationships for this population.

In our critique, we focus on just a few excerpts from the available training manuals, but select sections that illustrate the common underlying assumptions of this approach. First, we discuss the assertion that conversation is primarily a means for trading information. Next, we consider whether ‘topic’ is a central aspect of conversation. Finally, we offer empirical descriptions of opening up conversations that contrast with the procedures offered in SST curricula.

### Does Conversation Primarily Involve Trading Information?

SST curricula are designed under the assumption that the function of talk is to exchange personally-held information, and to give others access to one’s thoughts and feelings on particular topics (Laugeson and Frankel 2010; Winner 2002, 2006). Given this premise, their links to ToM approaches to understanding interaction and ASD are quite clear. For example, the PEERS clinical manual contains a section on conversation entitled, *Rules for Trading Information*, with the following introduction:

One of the most important parts of teen friendships is the ability to carry on a conversation. Having a conversation involves trading information, which is the natural exchange of information that occurs between two people when they’re getting to know one another. The most important goal of trading information is to find common interests so that you can find out if there are

things you might enjoy talking about or doing together. (Laugeson and Frankel 2010, p. 57)

Winner provides a comparable description:

Language serves the purpose of giving access to our thoughts, experiences and feelings. People ask questions to others to promote a more elaborate communicative exchange. (Winner 2010, p. 14)

Conversely, CA literature provides a wealth of empirical evidence showing that this is a fundamental misconception about conversation. Far more is accomplished in talk, as utterances are designed to do things, and not simply to convey information or give access to one’s thoughts. Sequences of utterances are shaped to collaboratively accomplish social actions, such as agreeing, inviting, and announcing. These sequences build upon one another to formulate larger action trajectories, such as persuading, affiliating, and storytelling (Levinson 2013). The excerpt below (transcribed according to traditional CA conventions, which are available in the appendix) provides an illustrative example of the action-oriented nature of talk. Importantly, this excerpt demonstrates that the information-exchange function of talk is often subordinated to other kinds of social actions. Here, Mom and her adolescent son Rus discuss an upcoming meeting that Mom is planning to attend.

(From Terasaki 1976, reported in; Levinson 2013).

- 1 Rus I know where yer goin,  
 2 Mom Whe↑re.  
 3 Rus .h to that eh (eight grade)=  
 4 Mom =Ye↑ah. Ri↑ght.  
 5 Mom Do you know who’s going to that meeting?  
 6 Rus Who.  
 7 Mom I don’t kno:w.  
 8 (0.2)  
 9 Rus .hh Oh::Prob’ly .hh MIssiz Mc Owen ‘n Dad said prob’ly Missiz Cadry and some of the teachers.

The excerpt begins with Rus claiming to know Mom’s upcoming plans (I know where yer goin), which can be read as a ‘taunt’. Mom follows with a ‘challenge’ in line 1 (Where), which Rus takes up in line 3. In line 5, Mom asks Rus “Do you know who’s going to that meeting?”. The utterance is syntactically framed as an interrogative question, and ends with rising intonation characteristic of questions (Stivers 2010). In isolation, this utterance (and questions more generally) could be construed as a request for information, which would be in line with an information-exchange view of talk. However, Rus responds with “who” in line 6, indicating he believes her to already know who is going to the meeting, while he himself does not. In line 7, Mom indicates that she does not know who will be going to the

meeting either. Rus finally provides the sought after information in line 9, but prefaces his turn with the token ‘Oh’, indexing an epistemic shift— he now knows something that he did not know previously (Schiffrin 1987). This corroborates our conjecture that when Rus said “who” in line 6, he assumed Mom already knew who would be attending the meeting, despite her question in line 5, but now knows that she is unaware of who will be attending. In the context of this particular interaction, Rus orients to Mom’s question in line 5 *not* as a request for information, but as a counter-taunt analogous to his own move in line 1.

We provide this example to demonstrate what CA analysis has consistently shown—that interaction partners do not operate under an assumption that information exchange is the default mode of talk, even when utterances are formatted as questions and actually *are* designed to gather information. Rather, utterances are taken to perform social actions, and are perceived as embedded within complex action trajectories such as playful taunting matches. In formulating interactional contributions, interlocutors collaborate in, thwart, or augment action trajectories according to their interactional goals (which may only be peripherally related to gathering information).

### Is Topicality Critical in Conversation?

Both PEERS and Social Thinking/ILAUGH curricula purport that conversation requires a mutual process of “zero[ing] in” on a conversational topic in order for talk to proceed (Winner 2006, p. 66). Participants are further advised to discover topics that their conversation partner does not like, so those topics can be avoided (Laugeson and Frankel 2010). In contrast, CA research has shown that, given the action-oriented nature of talk, it is often difficult to even pin down a particular topic when examining naturally-occurring conversations. Instead of being organized around topics, conversations are organized around action sequences, where a first utterance projects and constrains the interaction partner’s subsequent utterance. For instance, a greeting is followed by a return greeting, an invitation is followed by an acceptance, and an assessment may be followed by a second assessment (Schegloff 2007). Sequences can be interrupted by insertions, expansions, and repairs that contribute to “topic disjunction”, but nevertheless occur within “well-formed” and coherent talk (Schgloff 1990, p. 66). Even when topics are explicitly talked about, as in “we were just talking about you!”, these types of utterances are actually doing something other than demarcating a topic. In this example, the utterance is working to invite a newcomer to join the conversation (Schegloff 1990).

To be sure, some forms of talk are more topical than others. Interestingly, there are several discourse forms such as ‘troubles-telling’ or ‘complaint talk’ that topicalize the very

things that are not liked, and done so in part to foreground relational goals and express a commitment to open disclosure (Coupland et al. 1992; Drew and Walker 2009). This calls into question the advice not to discuss dis-preferred topics, as these types of discussions are pervasive among intimates. On a purely practical level, how one would act on advice to discover dis-preferred topics so that they can be avoided is not clear, as one would presumably have to discuss the topic at some point to know that it was not preferred.

### How Do Conversations Get Started?

Procedures for opening or joining a conversation are given significant attention in both of the curricula we examined. Guidance includes strategies such as watching and listening before joining in, determining whether a worthwhile contribution can be offered (participants are warned that if they are not aware of what is being talked about, they will only interrupt), making sure the conversation is not too sophisticated, and not holding the floor for too long (Laugeson and Frankel 2010; Winner 2006). These procedures are circumscribed to the speaker’s ability to add just the right amount of new and topic-relevant information.

CA literature focuses on somewhat different aspects of interaction that may be instructive for understanding how conversational openings work. Of course, the character of such openings is context dependent, as they are locally managed by participants. Nevertheless, Sacks (1972; an early founder of CA) describes how conversational openings can be navigated when individuals are co-present, not yet interacting, and not particularly familiar with one-another. In these cases, a ‘ticket’ is required to begin a conversation. One such ticket is to mention a source of trouble that is relevant to the interaction partner. Sacks offers an example utterance to illustrate this point (a rather extreme case), “your pants are on fire” (p. 245), or the less dramatic “excuse me but I think you dropped this” (Sidnell 2010, p. 14). Tickets not only grant interactional rights to begin a conversation, but are oriented to as *requiring* that the speaker share this trouble source with the hearer. Notably, these tickets are not necessarily comprised of topic proffers on subjects in which the interaction partner is known to have an interest. As discussed above, neither openings nor the extended interactions they may engender necessitate topicalization. Instead, they are generally fitted to the immediate context, and situate the two potential interaction partners as being involved together in the present social encounter. For example, when two people encounter each other at a bus stop one might say, “You waiting for the bus?” to indicate both parties share membership to the category of people who wait for the bus (Sidnell 2010). Contrastingly, both SST curricula we examined consider knowledge of others’ topic preferences as not

only a general function of conversation, but a prerequisite for beginning conversations. Belying the cognitivist orientation of SST approaches, Winner (2006) regularly refers to this type of information as ‘files’ that are intentionally uncovered and stored for later retrieval, should an opportunity to open another conversation arise.

Conversational openings can also involve *phatic talk* (Malinowski 1923). Phaticity is a feature of interactional exchanges that, even more so than other forms of talk, de-emphasize informational exchange and foreground social-relational aspects of interaction (Coupland et al. 1992). Greeting rituals, and inquiries about health or the weather are talk sequences with very high degrees of phaticity. Coupland et al. (1992) discuss the value of phaticity for human interaction, explaining:

...it is demonstrably the case that even our most instrumental, transactional encounters are pervasively organized around multiple interactional goals that go well beyond the transmission and reception of factual information... Goals of talk that relate to building, modifying, or dissolving personal relationships, and, on the other hand, those that have to do with the definition and redefinition of own and others’ identities as interacting beings are no less intrinsic to the enterprise of talking. (p. 211)

Phaticity is viewed as a potential property of *any* exchange, although it may be more apparent in some types than others (such as the examples listed above). Interaction partners negotiate within social encounters to determine if any particular stretch of talk will be oriented to as phatic or not. A “how are you” in any given interaction could be taken as a ‘mere’ phatic exchange, with little semantic or informational import, or it could be taken up as a serious question that will be given a serious answer (Coupland et al. 1992). We did find reference to such talk in the SST curricula that we examined, but the assumed function was still incorrectly constrained to informational exchange and topicalization. For example, Winner (2006) discusses *Social Conversations* (p. 67), characterized by small talk, which are purportedly for the purpose of gathering information so that topics of mutual interests can be settled upon.

Findings from CA on the ways in which conversations can get off the ground corroborate at least one aspect common to SST curricula; the assumption that beginning an interaction is an activity requiring delicate maneuvering. Still, SST curricula tend not to appeal to what is known about the mechanics of how interactions unfold, but instead outline rather arbitrary rules for how one might comport oneself, including where to look, what to say, and even what facial expression to hold. Of particular note is that it is not at all clear that following these rules would be an improvement upon what a young person with ASD would do without this

type of instruction. In fact, an over-focus on bodily comportment, information exchange, and topicalization may actually result in highly atypical encounters and circumvent the very types of interactions that function to build relationships with others. Adolescents with ASD have expressed similar sentiments regarding the lack of utility of adult-generated norms that are meant to improve adolescent interactions (Bottema-Beutel et al. 2016).

## Authenticity, Stigma, and SST Curricula

In addition to (and perhaps stemming from) the tendency of SST Curricula to offer an incomplete portrayal of how social interaction occurs, are the unintended consequences to the widespread proliferation of these types of programs. We next draw upon the concepts of *authenticity* and *stigma* to suggest potential caveats to SST curricula that will need to be given attention in future research.

### Authenticity

Acting authentically involves going about one’s daily life and engaging with others in accordance with a ‘true’ or ‘core’ self (Kernis and Goldman 2006; Schmid 2001). In the psychological literature, authenticity is described in terms of inner and outer dimensions. The inner dimension includes a sense of genuineness, self-acceptance, and un-biased self-evaluation. The outer, relational dimension includes acting with others transparently, openly, and honestly (Kernis and Goldman 2006; Schmid 2001). Authenticity correlates with perceptions of well-being, including self-esteem and relationship satisfaction (Impett et al. 2008; Theran 2010). Theran (2010) reported that adolescent girls have more intimate relationships with their close friends and higher self-esteem when they are more authentic in their relationships. Undergraduate students who strive for openness and honesty with dating partners tend to behave in more intimate and constructive ways with their partners (Brunell et al. 2010; Wickham 2013). In either romantic relationships or close friendships, individuals with greater authenticity are more likely to offer compromises reflecting the needs of both parties as a conflict resolution strategy (Neff and Harter 2002; Tou et al. 2015). On the other hand, those subordinating their personal needs are more likely to view their behavior as inauthentic, which may lead to poorer well-being, especially in terms of self-esteem and depressed affect (Neff and Harter 2002). Perceiving others as authentic is also important. Individuals who believe their romantic partner is more authentic tend to feel more connected with their partner, and report increased trust, commitment, relationship satisfaction, and relationship functioning (Neff and Harter 2002; Tou et al. 2015; Wickham 2013; Wickham et al. 2016).

In the sociolinguistic literature there is a third, interactional dimension of authenticity, referred to as *authenticity* (Bucholtz 2003; Bucholtz and Hall 2005). This is a process by which speakers negotiate identities within social encounters, which can vary between the authentic and the disingenuous. Power and status play a central role in this negotiation. Social actors are situated in different ways in relation to power structures that govern interactional expectations, and are permitted to participate in the design and subversion of these expectations to differing degrees. When particular interactional identities are separated out from dominant interactional identities, this is referred to as *distinction*. Minority language practices are made distinct by social pressures that favor dominant language groups. However, minority language users can reclaim language practices as authentic expressions of identity, which then index solidarity with other minoritized individuals (Bucholtz 2003).

### Authenticity, Stigma, and Passing

Achieving authenticity, in psychological, relational, and interactional dimensions is highly intertwined with stigma. In his 1963 essay, Erving Goffman offered a conceptualization of stigma and outlined the social structures that result in the stigmatization of particular persons and not others. Stigma is a form of social control that occurs when an individual is perceived to have attributes that are outside socially-valued, normative expectations. These individuals become ‘discredited’, and are socialized to understand that they occupy space outside the ‘normal order’ (Goffman 1963). A potential recourse for the stigmatized individual is to attempt to pass as a non-stigmatized person, but this comes with at least two caveats. First, it is always a partial passing, and the stigmatized individual will inevitably remain outside the normal order despite their efforts. For making attempts to pass, stigmatized individuals will be compensated by being considered to have ‘good adjustment’. Second, the effort involved in attempting to pass comes at a heavy psychological and interactional cost. The stigmatized individual will develop hyper-awareness of social encounters where stigma must be managed, and will never fully engage with social experience outside the management of stigma (i.e., they will become inauthentic). In this way, Goffman makes clear that the purpose of attempting to pass is for the benefit of the non-stigmatized, not for any tangible improvements in the well-being of the stigmatized.

### Implications for Individuals with ASD

Given that SST curricula treat the social norms they describe as pre-given and imperative, it is arguable that they reinforce social arrangements that require autistic individuals to attempt to learn, memorize, and deploy social rules in

order to pass as non-autistic (Dean et al. 2016; Hul et al. 2017). There is an inherent assumption in these programs that there is a correct or expected way to interact with others, and that it is incumbent upon the individual with ASD to learn this pre-specified format if interactions are to lead to relationships with others (i.e., a ‘normalization agenda’, Milton 2012a). Milton (2012b) refers to this as the double-empathy problem; the prioritization of the neurotypical (NT) interactional repertoire as necessary for successful interaction, with no examination of why NT individuals have difficulty relating to individuals with ASD. Milton argues that these assumptions become a ‘self-fulfilling’ prophesy that normalizes NT social perceptions, and leads individuals with ASD to internalize the negative connotation of difference (Milton 2012a, b).

The social rules described in SST programs are meant to displace the natural interactional proclivities of individuals with ASD. Almost by definition, a social experience that foregrounds adherence to externally derived rules would seriously inhibit the development of an authentic sense of self as well as authentic relationships with others (Hul et al. 2017). Paradoxically, inauthenticity is highly problematic for the development of intimate relationships; the very types of relationships SST curricula claim to support. Adhering to pre-defined social rules would also jeopardize the interactional negotiation of an authentic identity, as authentication is inherently a process of negotiating relevancies in the moment. Further, demarcating nearly all autistic interactional differences (including those that are rather benign) as requiring remediation is akin to the process of distinction mentioned above, which can further threaten the achievement of interactional authenticity (Bucholtz 2003).

Additionally, explicitly keeping in mind such rules would take significant cognitive effort, and could be counterproductive for developing social competence (see Hul et al. 2017 for an extended description of the experience of ‘camouflaging’). The rules in SST curricula go well beyond the ‘top-down’ expectations we describe above that act as constraints on all interaction, to varying extents. For instance, they give highly specific instructions for bodily comportment during conversation, including laughing or smiling faintly, but only when relevant (presumably when relevant to the NT interaction partner, not the individual with ASD); offering head shakes to show agreement; and making periodic eye contact while being mindful not to stare (Laugeson and Frankel 2010). Other scholars have pointed out the problem of over-focusing on the behavioral irregularities that can occur in ASD, arguing that attempts at correction may actually circumvent the enactment of existing linguistic capacities (Fasulo and Fiore 2007). Sterponi et al. (2015) further articulate this issue:

... if we hold to the idea that the nature and developmental trajectory of autism lies in the nexus between self and other—and not in the child alone—we are moved to consider the quality and authenticity of the child–clinician interaction. We may be concerned about the distinct possibility that structured or targeted attempts to intervene may actually deprive the child of authentic interaction and discourage the exercise of the child’s full linguistic ability. (p. 525)

Winner sidesteps these caveats by emphasizing that everyone is required to suppress their ‘true’ thoughts and feelings from time to time. We do not deny that this is indeed the case, as Goffman (1981) and Brown and Levinson (1987) have long theorized in their descriptions of *face work* and *politeness*, respectively. Still, there is little phenomenological evidence that NT individuals consistently hold in mind and enact the impressively large bank of rules that are outlined in SST curricula (Gallagher 2004). Indeed, violations of interactional expectations are a mundane feature of everyday, NT interactions, and a primary source of meaning making (Mooney 2004). A canonical example is the professor who writes a letter of reference for a below-average student, violating expectations about quantity and relevance by simply stating “he was always punctual” (Grice 1989). The violation itself is meaningful, and is meant to indicate that there is nothing much good to say about the student. When and in what manner face-work, politeness strategies, and other impression management procedures are enacted or violated are negotiated within interactions, and rarely (if ever) strictly adhered to.

The evidence for our claim that there are negative implications of SST curricula extends beyond our theoretical musings. Indeed, many autistic adults have discussed the conundrum in which they find themselves, at the intersection of normative expectations, authenticity, and stigma (Milton 2012a). One autistic blogger writes, “You’re supposed to express your authentic self in defiance of what’s normal, but only if your authentic self is normal enough to be acceptable” (Some Open Space 2016, para 4). Several other accounts bear uncanny similarity to Goffman’s description of stigmatization. In her video blog poem, *I Stim, Therefore I Am*, autistic professor Melanie Yergeau (2012) re-enacts attempting to wait the necessary number of seconds between utterances (2 s for a comma, 3 s for a period), and then curses in frustration when she is unable to remember correctly. Autistic blogger M. Kelter, reflecting on participation in social coaching, recounts:

...in moments where I was interacting with someone and trying to use everything I had learned—in moments where I was mechanically moving my arms through body language, and concentrating on how the other person gestured and spoke—I felt an equal mix

of fatigue and alienation. The mental workload to process it all was just too much, and prevented me from feeling like I was really present. More than anything, this social coaching made my body feel like a marionette that could move in the approved ways, while my mind was off somewhere else, watching from a distance (Kelter 2017).

Similarly, in a qualitative survey of autistic youth in the UK, participants perceived that their mental health was negatively influenced by pressure to conform to NT expectations (Crane et al. 2017). One participant stated,

I think that if somebody who wasn’t autistic grew up being excluded, bullied, and pressured to be something that they are not, they would very likely develop the same [mental health] conditions. (p. 26)

Incidentally, mental health outcomes are generally worse for individuals with ASD in comparison to their NT peers, and many autistic individuals perceive mental health systems as failing to meet their needs (Simonoff et al. 2008). The pressure to conform to normative expectations can both exacerbate and mask mental health symptoms, which may make mental health treatment more necessary but less likely.

## Recommendations for Intervention and Practice

In light of our concerns regarding SST curricula, we have three recommendations for continuing to improve intervention designs for individuals with ASD, which will need to be tested in experimental research (e.g., an RCT). Prior to offering our recommendations, we should note that some ‘top down’ norms may be appropriate to teach in the didactic instruction format that characterizes SST curricula. These could include normative expectations such as procedures for contributing to classroom discussions, and establishing one’s own and adhering to others’ personal boundaries (which may be especially important in the case of romantic relationships). It is the ‘bottom-up processes of social interaction that are critical for personal connectedness and intimacy that we address in this section. First, we recommend that intervention programs leverage findings and method from CA and other sociolinguistic disciplines to both determine the curricular content (i.e., what will be taught) and the method of delivery (how content will be taught). An appropriate set of theoretical and methodological tools will aid intervention researchers in expanding their view of the social landscape from a strictly cognitive domain to an interactional domain (Bottema-Beutel 2017). In fact, there are already examples from which ASD intervention research might draw. The Conversation Analytic Roleplay



Method (CARM), developed by Liz Stokoe, is a procedure for helping police officers improve their interactions with individuals suspected of committing a crime (Stokoe 2014). The training method was developed as an antidote to traditional role-play procedures, as simulated interactions were found to proceed quite differently than naturally occurring interactions (Stokoe 2013). Further, trainees indicated a preference for examining actual interactions as compared to participating in role play (Stokoe 2014). In CARM, actual social interactions are video recorded, viewed, and analyzed to identify conversational trouble sources and discuss potential resolutions with the assistance of a facilitator trained in CA. Notably, trouble sources are identified by workshop participants only when they are oriented to as problematic by the speakers within the interaction, not when they violate a pre-defined rule. Stokoe (2013) notes that her intervention program, because of its rigorous empirical and theoretical grounding, can make claims to epistemic integrity. This is critical for intervention work involving language and communication; it cannot be based on un-researched assumptions about how interactions work, and how communication problems are solved.

The CARM strategies, along with CA findings more broadly, could be used to more appropriately design interventions that aim to make social interaction easier to navigate. Video examples of actual talk, especially in circumstances immediately relevant to individuals with ASD, could be viewed and unpacked using CA analysis strategies that are adapted to be appropriate for individual needs. Attention would be given to the action-oriented nature of talk, and discussions could be geared toward developing an understanding of what speakers are doing in the interaction at particular moments. Given that CARM is traditionally used to understand interactions related to institutional settings (such as service encounters or police interviews), it may also be necessary to facilitate in-person interactions so that students gain experience in negotiating bottom-up practices as they occur. It should be noted that, similar to SST curricula, this intervention format may be most accessible to the sub-population of individuals with ASD who have significant language repertoires.

Second, we recommend that the framing of interventions be shifted from the provision of normative expectations of what autistic people ought to do in interaction, to a Critical Language Awareness (CLA) framework that presents process-related information about social interaction (Fairclough 2013). CLA is a sociolinguistic approach that guides students in exploring how language practices come to be taken as naturalized givens, and the ways in which this naturalization process can work to marginalize particular speakers. Individuals with ASD have reported feeling that they are perpetually on the outside of interactions, and are unable to discern how NT individuals are able to seamlessly navigate

complex social encounters (Crane et al. 2017). Unpacking social interactions, including the range of power structures inherent to every encounter, could be undertaken to provide insight and increase empowerment. Importantly, norms would not be presented as essential or prescriptive ways of behaving. The ramifications of choosing not to conform to social norms could be evaluated in different contexts, including the ways in which non-conformity is an act of social and political resistance. So far, this has generally been used for cultural and linguistic minorities, but may be easily adapted to autistic populations and provided alongside existing self-advocacy programming (e.g., Test et al. 2005).

Finally, we also recommend that training programs be developed and widely adopted that target NT individuals, to reduce negative stereotypes that contribute to the stigmatization of individuals with ASD. Recent research has shown that NT undergraduate students in the US more negatively evaluated individuals with ASD as compared to NT individuals based on only a randomly selected still frame generated from video (Sasson et al. 2017). This suggests that stereotyping and stigma in the NT population are quite entrenched, and that they occur prior to actual interaction. Gillespie-Lynch and her colleagues developed a brief online training workshop designed to increase knowledge of ASD and decrease stigma (related to whether or not participants would interact with someone with ASD) in NT college students (Gillespie-Lynch et al. 2015). Participants showed decreases in this measure of stigma, indicating that they were more likely to interact with someone with ASD after training. The authors also found that prior to the training, NT participants held several misconceptions about ASD, but these improved at post-test. This type of training can be provided alongside a CLA curriculum, so that NT individuals are made aware of how social structures that maintain stigma of individuals with ASD are reproduced.

## Conclusion

This commentary has suggested that SST curricula may be ill-equipped to improve social competence and relationships in individuals with ASD, because: (a) their content focuses on normative rules for social behavior that do not adequately depict how social interactions are negotiated, (b) they leave little room for the development/enactment of psychological, relational, and interactional authenticity, and (c) they contribute to the stigmatization of individuals with ASD by reifying an ideology that there is a correct way to engage in interaction, and encouraging individuals with ASD to pass as non-autistic. Couching interventions in sociolinguistic and CA evidence, theory, and method may improve their validity and epistemic integrity. Finally, including a

CLA framework may empower individuals with ASD while decreasing stigma.

**Acknowledgments** We would like to thank Betty Yu for her comments on an earlier version of this manuscript, and the attendees of the 2017 Working Conference on Discourse Analysis in Education for their commentary on these topics.

**Author Contributions** KBB conceptualized the commentary and wrote the draft. HP and SYK conducted literature reviews, wrote portions of the draft, and edited the final manuscript.

## Compliance with Ethical Standards

**Conflict of interest** The authors declare that they have no conflicts of interest.

**Ethical Approval** This article does not contain any studies with human participants or animals performed by any of the authors. The authors received no specific funding for writing this manuscript.

## Appendix: Transcription Conventions (adapted from Atkinson and Heritage 1984)

.	Period indicates a falling, or final, intonation contour, not necessarily the end of a sentence.
?	Question mark indicates rising intonation, not necessarily a question.
↑↓	Upward and downward pointing arrows indicate marked rising and falling shifts in intonation.
:::	Colons indicate stretching of the preceding sound, proportional to the number of colons.
<u>word</u>	Underlining indicates some form of stress or emphasis on the underlined item.
=	Equal sign indicate no break or delay between the words thereby connected.
(word)	When all or part of an utterance is in parentheses, this indicates uncertainty on the transcriber's part.
(1.2)	Numbers in parentheses indicate silence in tenths of a second.

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