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Giving the Subject a Voice. Material Taken from the Longitudinal Observation of an Autistic Child

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Abstract. – This work aims to merge the psychodynamic approach with the recent neuroscientific discoveries in the development of intersubjectivity, with particular focus on the communicative-linguistic area. The empirical data consists of a longitudinal semi-structured observation of a child diagnosed with autistic spectrum disorder. The data shows the intertwining of intersubjective processes and the development of the symbolic dimension in its different modes of expression, in this case, represented by speech and drawing. The interconnectedness of the three registers - phonetic, linguistic and graphic - enabled us to identify the advent of speech as an intentional production that signals the configuration of subjectivity in the relational domain.

Key words: Autism; intersubjectivity; affective attunement; language development.

Language and intersubjectivity: shared production in the relational domain

The study of language involves the intertwining of different branches of knowledge and for this reason is extremely complex. From the clinical point of view, we can select from the various branches of learning the areas of knowledge that will be the most helpful in devising interventions that support communicative-linguistic development. We also believe in the importance of identifying a theoretical framework that reflects the complexity of the language domain.

Stern (1987) has effectively highlighted the link between the intersubjective dimension and the ability to generate symbols, describing the transition between the constitution of a subjective sense of self and a verbal

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sense of self in the developmental process of the psychic life of the child. The works of Tomasello (2005) on the 'inter-subjective nature' of the linguistic symbol, and Seligman (2018; 2020), are invaluable in showing the constitution of each subjective experience - regarded as the advent of language - through an encounter with the other: an encounter that, in the case of autism, seems unable to materialise without an intense fine-tuning operation on the part of the caregiver (Laznik, 2012).

In a recent work, Seligman (2018) shows how the subjectivity of the child necessarily takes shape within an intersubjective dimension - the relationship with the care giver, *i.e*. with the other - in which ambiguity and uncertainty, alternating between moments of attunement and dissonance, represent an important creative impulse for the organisation of psychic life.

We propose that interventions in support of communicative language functions cannot be separated from a consideration of the question of subjectivity, which certainly affects the special way of relating to the world of the child with autism. In our view it is precisely through the observation of this peculiarity that the operator is called on to become an interlocutor and to provide support for the child in the formation of a 'relational mind' (Siegel, 2013).

Jacques Lacan's reflections on the value of the intersubjective language dimension in the organisation of the subject's psychic life also document the centrality of this dimension in the structuring of the symbolic dimension of experience (Lacan, 2002a). This dimension enables the production and understanding of linguistic messages (Tomasello, 2005). In his Seminar XI, Lacan (1964) invites us to consider the substantiality of repetition as the founding moment for thought, especially the child's thought, as seen in the Freudian lesson about the '*Fort-Da'* game (Freud, 1920). The repetition of a perception developed as a game becomes an opportunity to generate its psychic representation, *i.e*., the dawning of abstract thought. The child is not repeating sorrow, but is representing what happened to him: the child's mother left and could return. The child, as protagonist, is able to access the representation and its recurrence - an abstract representation of the conditions of the experience: the beginning of individual thought. Lacan and Freud's joint elaboration of the value of repetition on the onset of subjective thought could shed some light on the significance of stereotyped behaviour in autistic subjects in a caring setting that sees their behaviour as an attempt to process experience. We do not claim that stereotypies have a symbolic function as such, but they may reflect these children's attempt to find their bearings in a relationship with the other, and with all reality. Thus, stereotypies may take on the value of metaphor of a subjective position (Egge, 2006) which is built around a bodily-affective component. In this regard, Danon-Boileau (2015) underlines that psychoanalysis works with autistic subjects as thinkers who are capable of forming emotional connections: it is a question of understanding their messages and being willing to embark on

the complex process of entering into closer contact with their unique subjectivity (Pediconi & Urbinati, 2019).

Muratori and collaborators (2011) published an interesting work on the longitudinal observation of the first eighteen months in the life of children who were subsequently diagnosed with 'Autistic Disorder' (according to DSM-IV criteria). These data were compared with those of the first eighteen months of children with normo-typical development, and mentally retarded children, to describe their poor early inclination towards intersubjectivity. The authors noted children diagnosed with the disorder appear to have less need of reassurance on the part of caregivers in their intervention towards affective regulation. From early childhood, children diagnosed with autism seem to have no need for the other's intervention while, specularly, the other seems not to perceive or be concerned about this 'excessive tranquillity'. Even Laznik (2016) observed the tendency in children - subsequently diagnosed as autistic - to make no moves towards the other, and to not appeal to the other, despite the fact that these children may have received 'their parent's loving and admiring gaze' and, therefore, all the attention they needed.

Returning to language development as a way to subjectivation, in the field of *Infant Research* Anne Fernald (1989; 1991) documented the intertwining of the pre-linguistic and linguistic periods, hypothesising that the child's communicative-linguistic development is established in proto-conversations and, therefore, in the auditory-musical character of exchanges with the caregiver. The proto-conversations are in fact characterized by an *Infant Direct Speech* (IDS) in which the intonative-melodic and rhythmic features of the language stand out with respect to content (Freddi, 2012). Interestingly, Lai and collaborators (2012) demonstrated that in subjects with autism the recruitment of networks common to speech processing and singing is favoured by sound elements - this is encouraging for rehabilitation where the sense of a conversational exchange is created by using auditory-musical elements. Complex, non-linear connections between musical and linguistic domains have been documented but require further study using new methods of investigation to understand interactions and overlap from a neurobiological point of view (Hutka; Biedelman & Moreno, 2013). Moreover, Hubbard *et al*. (2017), who studied the acoustic characteristics of the prosody of adults with autism, found greater emotional salience in their speech compared to that of subjects whose development was regular. The utterances of autistic subjects have an intensity and duration which, together with a highly variable melodic profile, make affective tone recognition more immediate. Although the authors specify that the development of this characteristic requires further study, the results presented here are of interest as they suggest that the prosodic nature of the vocalizations reported in the frames that follow are a real expression of affective experience.

Reflecting on the intertwining of the symbolic dimension and the bodily

experience, Gallese (2013; Glenberg & Gallese, 2011) has shown how one can trace the development of (symbolic) linguistic competence to the 'body in action' through the theory of neural exploitation, *i.e.*, to the body-world relationship (recalling the phenomenological reflection referred to by the author). Further, this shows continuity with the pre-linguistic sphere (Gallese, 2007) in line with Stern's intuitions - for which the author provides neurological support. The sensory-motor origin of the symbol is also produced through the body-world encounter, a world which, if we consider the origin of language, has primarily auditory-musical characteristics.

We may assume that the development of symbolic competence is reflected transversely through the subject's different modes of expression, as shown by Di Renzo and colleagues (2017). A correlation was also seen between the affective dimension, assessed in terms of the scores attributed to the Social Affection sphere of the Autism Diagnostic Observation Schedule (ADOS-2), and the graphic production of children with autism. The authors argue that the nature of this production is related to socio-relational difficulties and the expression of one's emotional-affective universe, asserting that from modifications in graphic production we can see relational openness emerging as a result of undergoing a particular therapeutic path.

Development of the inter-subjective dimension, language development and graphic production are the three areas in which we have detailed the symbolic dimension of experience in its constitution, and in constituting the subjectivity of Andrea - the child with autism under observation. Having noted that autism research tends not to focus on the development of subjectivity, the present article aims to partly redress this balance by observing the emergence of language in an intersubjective frame.

The language event in autism: finding one's bearings in the complexity of the spectrum

According to Guideline 21 of the Higher Institute of Health *(Istituto Superiore della Sanità, 2011*), the language disorder seen in autism seems to belong to the broader category of socio-communicative skill impairment.

DSM-5 counts 'Autism Spectrum Disorder' among the neurodevelopmental disorders and acknowledges two main characteristics: 'persistent deficits in social communication and social interaction' and 'restricted, repetitive patterns of behaviour, interests or activities' (APA, 2014). Recalling the 'symptomatic triad' proposed in DSM-IV-TR (APA, 2001) we can see how aspects of 'qualitative impairment of social interaction' and 'qualitative impairment of communication' have been summarised in a single criterion: the synthesis proposed by the new nosological manual seems to highlight the intertwining of aspects of social interaction and communicative development.

Uta Frith (Frith, 2010) defined autism as a heterogeneous syndrome whose course is unpredictable. On the one hand, the complexity of the clinical picture has sparked an important debate regarding the etiopathogenesis of the disorder which remains unknown to this day. On the other hand, the heterogeneity in evidence complicates tracing the phenomenal plan to specific causal factors. Some authors have emphasised the mutual conditioning of constitutional and environmental factors, arguing the importance of treating each case on its specific merits (Singletary, 2015; Ansermet & Giacobino, 2013).

The perspective that considers autism as a 'meta-representation disorder' (Leslie, 1987; Frith, 2010) attaches particular importance to understanding the declarative gesture. Some researchers (Perucchini, Murator, & Parrini, 2005; Bernabei, Camaioni, Levi, & Di Falco, 1997) suggest that declarative gestures (gestures performed by the child to attract and share the adult's attention to a common object) may be used as diagnostic and prognostic indicators. The declarative intention, which may be expressed, for example, through the gesture of pointing, underlies particular socio-cognitive abilities: recognition of one's subjectivity and the ability to attribute to another a mental state.

The interactionist model (Gallagher & Varga, 2015; Gallagher, 2004), which has its neurobiological-evolutionary base in the research on intersubjectivity conducted by Gallese and colleagues (Gallese & Rochat, 2018; Gallese, 2006a, 2006b), explains, in particular, the socio-cognitive disorders of autism. Gallese postulates that in autism the impairment of intersubjective abilities may be attributable to a disorganisation of the 'system of shared multiplicity' (Gallese, 2006b), which constitutes the basis for a recognition of others as similar, and an automatic understanding of their actions, implicit, through a process of embodied simulation mediated by the mirror system. Nomi and Uddin (2015) argued that to explain the deficits found in the area of socialization neurobiologically we need to deepen our knowledge of the functioning of functional networks rather than concentrating on the activation of individual areas, in that the mechanisms underlying socio-cognitive skills are made up of a complex network of attentional and perceptive processes.

Despite the heterogeneity with which the autistic syndrome manifests itself and the uncertainty relating to its underlying etiopathogenetic processes, in recent research we see a substantial convergence of the need to adopt an open, multidimensional perspective. We agree with Tafuri Ranieri (2019) on the need to structure a multidimensional (re)habilitation project which promotes the integration of the subject's expressive uniqueness in the particular socio-environmental context in which he or she lives. In this perspective, interesting contributions from the field of music therapy (Suvini, 2019; Suvini, Apicella, & Muratori, 2017; Venuti, *et al*., 2017; Geretsegger, Elefant, Mössler, & Gold, 2014; Raglio, Traficante, & Oasis, 2011; Kim, Wigram, & Gold, 2008). The technical approach used to support the development of shared attention and socio-communicative skills - inspired by

Stern's work on the development of a subjective sense of self (Stern, 1987) - consists of the inclusion of behaviours exhibited by the child with autism in a auditory-musical framework shared with the therapist, who seeks synchronisation (for example, rhythmic) with the child's behaviour through a musical instrument to promote moments of affective attunement which the child can experience intersubjectively.

This work is in line with the thinking of Sterponi and colleagues (2015; 2010) on the study of the communicative-linguistic sphere of autism, which shows that the production of a subject with autism may be the expression of personal experience in a specific relational context.

We could follow Ansermet's work (2013) in seeking a convergence between the debate on etiopathogenesis and the 'one for one' clinic proposed by psychoanalysis, which considers the individual with autism as a subjectivity to be produced in an intersubjective context. In this context, another - the therapist - presents himself as partner in support of the subjects' development in the singularity and the uniqueness of their neurobiological characteristics (Maestro, 2016; Barale 2016).

Since attention to detail, and to the small variations of relational style which the subjects express through the modalities available to them (gestures, play modes, graphic production, vocalizations, isolated words) can constitute important clues to deepening the psychological dimension of the child with autism (Dainesi & Pretorius, 2020), stereotypies (motor or vocal) can also be seen as a metaphor for a subjective position (Lolli, 2015; de Halleux & Baio, 2011; Egge, 2006) in a relational therapy perspective in which the communicative-linguistic processes can also develop. In this sense, autism would appear as the 'structure of existence' (Romano, Paravidini, & Próchno, 2019) of subjects who have the right to be heard in their particularity (Barale, 2016) by adults and operators who invest in their subjectivity (Pediconi & Urbinati, 2019).

We suggest that the language event in autism should be considered the expression of a emergent subjective position that the operator is required to support. The semi-structured observation presented here allows us to document that the evolution of graphic and linguistic skills in subjects with autism are the expression of personal strategies designed to gain entry into a relationship with the physical and social environment that the subject is part of.

Methodology

The methodology we will present aims to track down some experiential areas that can be considered in parallel to trace the overlaps, and help direct our observations and make a qualitative assessment of the child's developmental progress.

Here we summarize the three deeply intertwined and mutually determining aspects that guided our observations:

- intersubjectivity (Trevarthen & Aitken, 2001): as previously reported, it seems relevant that Daniel Stern (1987) highlighted that affective attunement processes promote the development of symbolisation processes and a 'verbal sense of self'.

Inspired by the work carried out in the field of music therapy (Suvini, 2019; Venuti *et al*., 2017) we tried to promote attunement in an auditory-musical framework, mirroring in particular the exhibited (vocal or motor) behaviours using percussion instruments or the voice, paying particular attention to 'rhythmic' characteristics and, in the case of vocalizations, to the melodic profile.

We attached particular importance to the synchronisation, when it occurred, (the operator's mirroring of the child's behaviours, including stereotypies) of the child with the therapist during treatment, on the assumption that affective attunement is generated in these moments (Venuti *et al*., 2017) and encourages the child to take charge of the utterances (Di Ciaccia, 2011) and through the other's response, to recognise oneself as the subject of one's actions (Lacan, 2002a).

- Communicative-linguistic aspects: linguistic skills and their prerequisites were identified by collecting the spontaneous and recurrent productions of the child during play activity. We observed the transition from an instrumental use of the other and requesting gestures, to the use of expressions (vocalizations and gestures) with a declarative intent (Perucchini, Muratori, & Parrini, 2005) and to an increase in the number of words per utterance.

  The phonetic development was recorded by collecting the sounds produced by the child during observation sessions by means of the technique borrowed from Stoel-Gammon (Stoel-Gammon, 1985) which allowed us to observe the expansion of the child's competence in the use of linguistic sounds.
- Graphic production: by collecting the child's spontaneously recurring marks on a sheet of paper from one time to the next, we observed the passage from scribble to spots of colour and then to circular shapes (Di Renzo, Marini, Bianchi di Castelbianco, Racinaro, & Rea, 2017). We also observed how the representation of discrete elements in graphic space which signal awareness of occupying a position in physical space (Schwab, 2014) appeared in parallel to the child's position in relational space.

  The observations are drawn from material collected in the first two years of Andrea's speech therapy (November 2017 - November 2019). We aim to highlight the salient moments in the child's communicative-linguistic development, presenting them in the form of three frames reconstructed *a posteriori* based on the data collected. This allowed us to analytically

observe the child's progress. Each frame interlaces development of the *phonetic inventory, communicative-linguistic skills (and their prerequisites),* and *graphic production*.

Our setting for the observation of how these three aspects developed was a shared play area in which the child's productions were listened to and matched by the adult through the expression of sounds. The purpose was to promote, through repetition, the construction of an experience. The attunement modulated by the adult was conducted so that the sounds produced in the exchange between adult and child had common features, both in terms of the vowel or syllable choice, and in rhythm and melody. The same sounds were used in different game contexts: drawing, jigsaw-puzzles, hide and seek, and matching figures, and aimed to promote through mirroring, the realisation in Andrea of his subjectivity and, therefore, of his being different to the other.

The case of Andrea. Andrea (invented name) is currently 5 years old, lives with his parents, a sister, and an older brother. Today he attends the third year of Kindergarten. In October 2017, when he was aged 2 years 10 months, his parents consulted the Child Neuropsychiatry service because of a delay in language development. He was admitted to the Day Hospital for genetic tests (negative for Fragile X syndrome) and for neuropsychological-behavioural and logopedic assessments. Tests for the assessment of specific language skills could not be administered due to the child's lack of cooperation. Andrea was discharged with the diagnosis: 'Generalised developmental delay with absence of speech', 'Interaction and behavioural adaptation disorder', and instructions for speech therapy and psychomotor treatment with follow-up after one year.

Subsequently, in May 2018, following a new neuropsychological assessment that included the administration of the Autism Diagnostic Observation Schedule 2 (ADOS-2), Andrea was diagnosed with an 'Autism Spectrum Disorder', level of severity 2, with no speech. The anamnesis established absence of speech and lack of sphincter control.

The child was referred for speech therapy in November 2017 in his first year of Kindergarten. His parents describe Andrea as a cranky child, but with an interest in music - and one song in particular, 'Hold my hand' by Jess Glynne, seems to hold his attention and calm him in moments of anger. The results of the longitudinal observation of twice-weekly speech therapy sessions are presented here.

Remarks

The context and initial observations. During the first meetings in the parents' presence, the following games were made available: jigsaw puzzles,

constructions (for the building of a tower), modelling clay, toy cars. Initially Andrea seemed unwilling to take part in any activities with an adult (neither his parents, nor the speech therapist).

From time to time, the child sought physical contact with both parents, suddenly rushing to hug them when they were in the room. Andrea showed no interest in the games proposed and exhibited protest behaviour; these aspects were accentuated in his relationship with the operator who represented a novelty for him. The only moment of shared activity came at the end of the session on tidying the room: Andrea was meticulous in helping to put the objects in their containers and would not tolerate mistakes (he could not bear to see the colours placed in a tin without its top, or a car put into in a box other than the one in which it had been found). Andrea's reactions to his father's 'No!' were striking: he responded with crises of anguish, manifested through crying and resorting to sequences of aggressive stereotyped gestures. It seemed that the 'No!' perceived as a reproach had the effect of destabilising Andrea's attempts to establish control over the new environment, and was interpreted by him as a threat.

The individualised enabling project. Following the diagnostic assessment carried out by the NPI (Child Neuropsychiatry Service), the following habilitation project was set up with the child's parents:

- the continuation of speech therapy, with the aim of promoting development of the pre-requisites of communication (communicative intentionality, shared attention, turn-taking);
- a cognitive-behavioural habilitation programme (Applied Behaviour Analysis, ABA) to take place in school hours with a specialised educator supervised by a psychologist from the Child Neuropsychiatry Service;
- programmed psychomotor intervention (from November 2018) aimed at supporting and implementing moments of shared attention.

In the initial phase of speech therapy, on the advice of the neuropsychiatrist, the parents were invited to participate in the sessions to create moments of sharing - for example, the exchange of a toy or a colour that had captured the child's interest - these moments, despite their brevity, meant that we could inscribe these small gestures in a relational frame.

Counselling sessions were also scheduled to lend support to parents frustrated by their child's unresponsiveness; parents were invited not to overstimulate the child through language but rather to use single words or short phrases in the fleeting moments of shared attention.

Therapeutic approaches. The guidelines of the Italian Society of Childhood and Adolescent Neuropsychiatry (SINPIA, 2005) mention two main therapeutic approaches: behavioural and developmental. In the habilitation project outlined above it was possible to propose both in different contexts, and integrate them according to their particular purpose, and considering the underlying epistemological differences of each:

- the cognitive-behavioural approach (ABA) was proposed at school to support the achievement of educational goals - once the team had agreed on shared goals - with particular focus on routine learning, the visual-motor-perceptual domain, and the development of play skills.
- The rationale of developmental approaches may be seen in speech therapy and psychomotor treatments focused primarily on promoting the pre-requisites of communicative-linguistic development - areas particularly associated with the affective-relational dimension.

In presenting the frames, we will attempt to do justice to the latter dimension breaking it down into linguistic sounds and graphic productions.

Frame 1

In relation to phonetic development, the table above shows the child's decidedly incomplete phonetic inventory (PI). The sounds indicated with (X) are those more rarely encountered. The PI was collected based on stereotyped vocalizations with flat intonation or from syllabic sequences attributable to canonical babbling, for example [ba ba ba]. The syllables [ma], [pa], [ti], and their respective consonant sounds were recorded about a month into treatment in an expansion phase of babbling which coincided with a reduction in moments of distress. According to the Spontaneous Language Analysis Grid (*Griglia per l'Analisi del Linguaggio Spontaneo* - GALS, Cipriani, Chilosi, Bottari, & Pfanner, 1993) Andrea would be placed at level 0 for syntax.

Concurrently, we observe Andrea's graphic production of jumbled coils - a confused tangle in the centre of the sheet, apparently drawn without control, and which, viewed synaesthetically, recalls the linguistic expressivity of the child - stereotyped vocalisations without an interlocutor which suggest production which is mere sensory self-stimulation. Di Renzo and collaborators (2017) drew attention to the fact that scribble, as stereotypical production - represented in our case by 'jumbled coils' - seems to represent a way of escape from the relational domain.

In this phase treatment focused on the operator's seeking to occupy the position of interlocutor, mirroring both the linguistic and graphic productions of the child, embodying the presence of an Other who listens to the subject's suggestions and answers, a game of attunement and mis-attunement that creates the specific intersubjective space (Seligman, 2020). The points observable in 'Graphic production 1' were in fact traced by the operator to reinforce the transmodal mirroring of the syllable [pa] which the child had begun to explore. Similarly, a line traced by Andrea on a sheet of paper could be represented by a vocalisation using the sound [i] (present in the child's repertoire) to mimic the upward and downward movement of the hand to emphasise the affective - bodily experience of the child.

CONSONANTI	p	b	f	v	t	d	ts	dz	s	z	k	g	ʧ	ʤ	ʃ	m	n	ɲ	l	ʎ	r	j	w
Iniziale	X				X	(X)					X					X						X	
Intermedia																							
VOCALI	a	e	ɛ	i	o	ɔ	u																
	X	(X)	(X)	X			(X)																

Produzione fonetica 1 – Ottobre 2018

Produzione grafica 1 - Ottobre 2018

Vocalizzazioni

- [i] prolungata con intonazione piatta
- [u'jo'jo'jo] con intonazione piatta

Produzione linguistica 1 - Ottobre 2018

The operator, focusing attention on the child's gestural or vocal expressions or the tangible act of drawing to seek a pretext for the creation of a sequence of conversational turns, is inspired by Greenspan & Wieder (1999). In their description of the Developmental Intervention Model (DIR), considered a developmental approach to autism (SINPIA, 2005), particular importance is attached to the interests and observation of the preferred interaction mode of the person affected with autism, placing the specificity and uniqueness of subjective modes of functioning at the forefront.

Frame 2

An expansion of the PI was registered after eight months. We observed the stabilisation of some consonant sounds. The asterisk in correspondence with the sound [s] indicates the phonetically incorrect production of the fricative consonant, which was aspirated, although it was used correctly from the phonological point of view, (for example to produce the word ['os:o] àrosso).

In this phase, from a linguistic point of view, we recorded the emergence of some syntactic competence. With a syllable or a single word, the child conveyed an assertive or a declarative communicative intention (holophrase). Level of competence GALS Level 1.

Regarding prosody, we observed greater modulation and differentiation in the melodic intonation of utterances - for example, rising intonation for

a question and falling intonation for an exclamation - which, in the previous frame, were monotonal vocalisations. This observation suggests that the child is beginning to express himself conversationally in a more complex way. The affective component of the conversation, conveyed by prosody, enhances - through words - the child's communicative intentions.

We observed some expansion at a conversational level (which presupposes communicative intentionality, shared attention, and turn-taking) in the game context, in particular, 'hide and seek', or with the introduction of small cylinders into a centrally perforated box. Moreover, Andrea resorts to the use of declarative gestures to attract the interlocutor's attention more frequently, also attributing states of mind to him (Perucchini, Muratori, & Parrini, 2005).

CONSONANTI	p	b	f	v	t	d	ts	dz	s*	z	k	g	ʧ	ʤ	ʃ	m	n	ɲ	l	ʎ	r	j	w
Iniziale	X X	X X			X X	X		X			X X					X X	X X					X	X
Intermedia					X				X		X X					X X	X X				X		
VOCALI	a	e	ɛ	i	o	ɔ	u																
	X X	X X	X X	X X	X X	X X	X X																

Produzione fonetica 2 – Giugno 2019

Produzione grafica 2 – Giugno 2019

Olofrase

Esempio:

A. esclama «pa!», per chiedere all'adulto di lanciargli la palla

Produzione linguistica 2 – Giugno 2019

As for turn-taking, we observe, in games, the opposition appear-disappear, that Freud and Lacan (Lacan, 1964; Freud, 1920) believed may be associated with the origin of the symbolisation process. It is in this phase that the child uses linguistic competence to represent declarative intentionality, making it symbolic, and therefore shareable. This process of symbolisation is also reflected in the observation of surprise - surprise presumes the mental construction of an expectation with regard to the interlocutor's reaction; for example, in the game 'hide and seek' someone hides (noisily) in order to be found. By attributing a state of mind to the other and expectations to himself Andrea seems to be beginning to develop a shared perspective.

Moreover, this shared perspective is given expression through imitating the operator's prosodic utterances often emphasising their emotional-affective character.

Regarding symbols we notice that even the child's graphic expression presents an interesting modification: he no longer produces tangled coils, but isolated scribbles, here and there on the paper.

From these expressive modalities we can draw the analogy of a child who occupies space on a sheet of paper with scribbles, to starting to occupy the role of interlocutor in conversational space in the relational sphere.

In parallel to graphic and communicative-relational progress we note that Andrea achieves sphincter control: thanks to gaining access to the question register, mediated by the emergence of language, Andrea's body participates in the subjectivation process successfully taking charge of a new impulse.

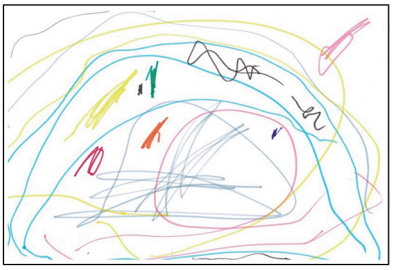
Frame 3

In parallel to a further expansion of the PI, we find that linguistic production, and in particular, morphosyntactic ability, is evolving.

In the third frame we observed the emergence of proto-morphological fillers' (*segmenti fonetici indifferenziati, SFI*) and assigned to Andrea GALS Level 2.

CONSONANTI	p	b	f	v	t	d	ts	dz	s	z	k	g	ʧ	ʤ	ʃ	m	n	ɲ	l	ʎ	r	j	w
Iniziale	X X	X X	(X)		X X	X		X			X X			X		X X	X X					X	X
Intermedia	X				X				X		X X			X	X	X X	X X				X		
VOCALI	a	e	ɛ	i	o	ɔ	u																
	X X	X X	X X	X X	X X	X X	X X																

Produzione fonetica 3 – Novembre 2019



Produzione grafica 3 – Novembre 2019

Combinatoria

Esempio:
«mucca atte»
(indicando l'immagine di una mucca).

Produzione linguistica 3 – Novembre 2019

In language development it is interesting to note how the sound [s] which, in the previous frame we reported as being phonetically incorrect, was corrected by the child: it seems that Andrea successfully exploited the comparison between his own and the adult's target production. We suggest that this self-correction reveals a deepening of intersubjectivity.

Another observable change concerns Andrea's intonational vocal pattern and timbre. Andrea seems to have given up stereotypical vocal production and is gradually acquiring a deeper tone of voice - accentuating the intonational contour of utterances in accordance with the communicative intent (interrogative or exclamatory) of his exchange with the interlocutor.

Furthermore, in this phase we also notice that Andrea has started to draw closed, circular shapes that occupy a definite space on the paper. We suggest that the child's ability to define a space is related to the growing awareness that his body occupies a space - a space increasingly occupied in the conversational context. Andrea proposes himself as the subject of his utterances and chooses his own perspective. Again, citing Tomasello (2005) this aspect reveals the further 'perspective nature' of the linguistic symbol; in other words, we could say that Andrea has come to terms with the prospect of an Other's inclusion in his representation of the world.

Discussion

Through our three frames we can appreciate Andrea's progress, with particular reference to phonetic production, linguistic production, and graphic production. We observed how an expansion in expressiveness was accompanied by an expansion in intersubjective competence.

Our attempts to synchronise the child's spontaneous behaviours (Venuti *et al*., 2017) - those of a vocal or gestural nature - interpreted as intentional by the operator, who deemed them to be intentional auditory-musical productions expressing a particular affective-body experience, was useful in creating a meeting space and, subsequently, a shared experience. This work recalls Stern's forms of vitality concept, then taken up by Gallese and Rochat (2018) on the development of social cognition. The authors show how deficits in autism can be attributed to an alteration in the sensory-motor processing of information concerning social relationships, which compromises the development of mentalisation processes. In this regard, mirroring enhances the experiential dimension expressed through vital affects. In referring to the quality of the experience and not to its cognitive interpretation they are transversal and freed from various perceptual modalities (Stern, 1987). The vital affects lay the foundation for parallel work on vocality and strokes drawn on a page, both refer to the same affect (see the example of the sound [pa] shown in frame 1) in an attempt to stim-

ulate the organisation of a 'system of shared multiplicity' (Gallese, 2006b) - a determining factor in the constitution of subjectivity and the attribution of sense to the experience, configured as a co-construction shaped through an encounter with the other. However, we should point out that there is an inevitable lag between moments of attunement and the child's actual affective-bodily experience - to which, being the other, we have no direct access - as pointed out in a recent work by Seligman (2020). This lag offers the opportunity to work creatively to find a subjective position. Taking up Seligman's reference to Lacan, we can see that recognising dissonance with the other is a fundamental stage in the constitution of subjectivity (Lacan, 2002c).

We observed Andrea's transition between moments of anguish, fits of anger, and greater tolerance of the frustration that misunderstandings and differences between one's own will and that of an Other inevitably produce. In parallel to this emotional-affective maturity we witnessed a decrease in the stereotypies, and an expansion of relational and communicative-language competence. We suggest, therefore, that linguistic skills may have developed through the mediation (symbolic) of a psychic space under threat from the void represented by the self's dissonant split with the other

In this perspective, the emphasis on supra-segmental aspects of language - recalling the *Infant Direct Speech* model (Freddi, 2012) - meant that we could construct short proto-conversations and consider the child's contribution to the exchange as meaningful, without making intrusive requests. Sterponi and Fasulo (2010), studying the intertwining of 'progressivity' and 'intersubjectivity' in the communication process, highlighted the importance of placing one's trust in the interlocutor's communication skills. With this in mind, it seems helpful to consider the child's expressive modalities as particular ways of inhabiting the 'here and now' (Sterponi & de Kirby, 2015), take them 'literally' (Lacan, 2002 b) and attribute intentionality to them, assuming that a child does what it is possible to do, or, citing Meltzer: 'tries to manage with the means at his disposal' (Meltzer, 2000).

In this perspective, even stereotypies (motor or vocal) could be considered metaphors of a subjective position (Lolli, 2015; de Halleux & Baio, 2011; Egge, 2006) since, as Danon-Boileau (2015) states, we cannot conclude that the language of the autistic child expresses nothing; through its singularity the subject tries to give a form to the strangeness of the internal or external world. In this perspective the operator is required to attend to the moments of 'dialogic resonance' that occur in conversational exchanges (Du Bois, Hobson, & Hobson, 2014; Hobson, Hobson, García-Pérez, & Bois, 2012). These moments mark the occurrence of a communicative exchange primarily detectable through the appearance of declarative gestures which reveal to us the interlocutor's presence in the child's conversational initiative (Perucchini, Muratori, & Parrini, 2005; Bernabei,

Camaioni, Levi, & Di Falco, 1997) - observations made possible thanks to the activities included in each frame.

From the comment to the second frame, we see how work on the mirroring process is likely to have influenced the child's ability to construct a mode of self-correction in the phonetic production of sound [s]. We suppose that it was a growing interest in the other, a relational openness, that influenced Andrea's ability to self-correct his production. The development of imitative abilities seems to have evolved from the operator's imitation of the child's production. Following a growing interest in the interlocutor and, plausibly, an increasing awareness of his own incisivity at a conversational level, Andrea used this intersubjectivity as the instrument with which to modify his linguistic production.

The development of phonetic skills, as we can see from the transition from the first to the second frame, allowed the child to start building words and short sentences to convey communicative intentionality. We suggest that the relational openness in conversation - created originally from the therapist's role as interlocutor - promoted the use of expressive skills in more complex linguistic structures (combinatorial structure) and their general application in other contexts, other than that of the present setting. In other words, we could trace this generalisation back to the internalisation of an intersubjective context which presupposes the awareness of one's communicative effectiveness and the need to address another.

In the work of Di Renzo and colleagues (2017) we can see the expansion of experience which occurs in the intertwining of graphic production and the affective domain. With the gradual transition from stereotyped scribbles - indicators of an 'escape from relationships' (Di Renzo *et al*., 2017), to concentric shapes requiring greater control for their realisation - which we could consider precursors of pre-schematic forms of representation - we observed a deepening of Andrea's relationship with his world. Therefore, we suppose that evolving through the three frames was also expressed in the organisation of graphic elements on the sheet-space. If the origin of affect can be traced back to a bodily experience that someone responds to (Freud, 1895) and this may be tied in with Gallese's thinking on intersubjectivity (Gallese, 2013) - we might suggest that an aspect of affective expression conveys the child's awareness of occupying a space (Schwab, 2014) in which are condensed both the physical space occupied by one's body - which also implies an awareness of the I-other difference (Grinberg & Grinberg, 1976) - and the conversational space in which the child recognizes a position as subject. We can summarise intersubjectivity thus: if an adult who is working with an autistic child in a care setting 'manages to get in between the child and whatever absorbs him in the world, the child's sense of identity is consolidated. Something can be introduced into a spoken exchange. Something that will obviously reinforce the symbolising power of language' (Danon-Boileau, 2015, pp. 208-209).

Considering Lolli's observant distinction between cognitive and intellectual registers (2012), our work proposes, through the three frames, a reflection on the transversality of intellectual functioning compared with cognitive skills (such as language, graphism): the development of the intellectual register (*why* act) is crucial for directing cognitive resources (*how to* act) towards an end, and, therefore, for promoting a generalisation of acquired skills. A working perspective that cannot prescind from the importance of treating each case according to its specificity; in other words, each case results from a complex, mutual conditioning of constitutional and environmental factors (Singletary, 2015; Ansermet & Giacobino, 2013) that determine the environment in which the subject may take a place.

Conclusions

Our observation here tends to confirm that, in the case of autism, the concatenation process characterising the symbolic dimension of experience is defective. Speech - both its absence and its occurrence, becomes an emblematic expression of its structural organisation - a system of phonemes whose combination allows messages to be generated that can be understood by an interlocutor. In the case of autism, the absence of speech is reflected in the closure found in the clinical profile. Assuming the role of interlocutor and attributing intentionality to the child's expressive modalities could prove to be a useful technique; a means of resonating with what the child experiences so that the child can perceive and find a position in the conversational dimension. Longitudinal observation has brought to light the gradual process of discovery for which the operator is called on to provide support. Operators must, first and foremost, show they recognise that behaviours - often considered meaningless in the case of autism, and ignored - have meaning. This was not a causative effect, therefore, but a discreet and timely support for the process of subjectivation in which the operator took on the role of interlocutor.

The purpose of this article was to highlight the intertwining of the intersubjective processes with the development of the symbolic dimension of experience, in the different ways in which it is expressed, represented here by language and design. Our theoretical reflections as well as observations allowed us to analyse the experience of a relationship with a child with autism in all its complexity - a complexity which was upheld through the intertwining of relational knowledge.

Our work clearly has two limitations: firstly, the presentation of a single case; secondly, the role attributed to the operator's reflections rather than to the use of standardised tools. Both of these aspects invite us to be wary of making generalisations on the reflections presented here. However, we would

specify that our proposal to consider the three levels of analysis - intersubjectivity, phonetic and linguistic production, and graphic production - is an attempt to systematise our observations clinically respecting the subject's uniqueness. We think that future research, extended to other clinical cases, can expand this perspective and make it a useful contribution to other work.

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