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SUKHAREVA GRUNYA EFIMOVNA – PRIOR TO ASPERGER AND KANNER

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ABSTRACT:

As early as 1926, the Kiev-based Russian child psychiatrist Grunya Efimovna Sukhareva (Груня Ефимовна Сухарева) (1891-1981) published a detailed description of autistic traits in a scientific German psychiatry and neurology journal. This original article was available almost two decades before the case reports of Asperger and Kanner. Sukhareva initially used the term “schizoid (eccentric) psychopathy” to describe the clinical picture, but later replaced it with “autistic (pathological avoidant) psychopathy”.

MAIN MANUSCRIPT:

Most scientists strive to make important discoveries that alter previous knowledge and beliefs and outline new paths forward. Some will be honored by forever being associated with a new disorder. There are two renowned examples within the domain of autism spectrum disorder: the Austrian pediatrician Hans Asperger (1906-1980), who described the condition of “autistic psychopathy”, later known as Asperger disorder (APA; DSM-IV-TR 2000), and the Jewish Austrian-Hungarian-born child psychiatrist Leo Kanner (1896-1981), who described “early infantile autism” (Kanner 1943), often referred to as Kanner’s autism. Nevertheless, the work of Grunya Efimovna Sukhareva preceded the findings of both researchers.

Eighteen years have passed since Sula Wolff tried to set things right by presenting Sukhareva as the author of the first account of the syndrome described by Asperger (Ssucharewa and Wolff 1996). Notably, Sukhareva’s description of the clinical picture is very similar to the description of autism spectrum disorder in today’s DSM-5 (APA 2013) (**Table 1**).

Table 1. The DSM-5 criteria for autism spectrum disorder compared to the descriptions provided by Grunya Sukhareva.

Autism spectrum disorder, DSM-5, APA, 2013	Schizoid personality disorders of childhood, Sukhareva, 1925/1926
	<i>Examples</i>
<i>A. Persistent deficits in social communication and social interaction across multiple contexts</i>	<i>An autistic attitude: tendency toward solitude and avoidance of other people from early childhood onwards; avoids company with other children</i>
1. Deficits in social-emotional reciprocity	<ul style="list-style-type: none"> • Impulsive, odd behavior • Clowning, rhyming • Some were speaking endlessly or asking absurd questions of the people around them • Affective life flattened • Seems odd • A tendency toward abstraction and schematization (the introduction of concrete concepts does not improve but rather impedes thought processes)
2. Deficits in nonverbal communicative behaviors used for social interaction	<ul style="list-style-type: none"> • Lack of facial expressiveness and expressive movements • Mannerism; decreased postural tone; oddities and lack of modulation of speech • Superfluous movements and synkinesias • Rapid or circumscribed speech • Nasal, hoarse or high pitched whining voice or lacking in modulation
3. Deficits in developing, maintaining, and understanding relationships	<ul style="list-style-type: none"> • Keep apart from their peers, avoid communal games and prefer fantastic stories and fairy tales • They find it hard to adapt to other children. They are ridiculed by their peers and have low status
<i>B. Restricted, repetitive patterns of behavior, interests, or activities as manifested by at least two of the following</i>	<ul style="list-style-type: none"> • <i>Tendency towards automatism:</i> • <i>Sticking to tasks which had been started and psychic inflexibility with difficulty in adaptation to novelty</i>
1. Stereotyped or repetitive motor movements, use of objects, or speech	<ul style="list-style-type: none"> • Stereotyped or repetitive motor movements, use of objects, or speech for example: • Tic-like behaviors • Grimacing • Stereotypic neologisms • Repetitive questioning ; talking in stereotypic ways
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior	<ul style="list-style-type: none"> • A tendency for obsessive-compulsive behavior • Lengthy preparation and difficulty stopping • Pedantic, follows principles • Emotional outbursts • If interrupted becomes agitated and starts the story all over again
3. Highly restricted, fixated interests that are abnormal in intensity or focus	<ul style="list-style-type: none"> • Strong interests pursued exclusively • Preservative interests e.g. conversion marked by repetitive obsessional themes; clings to certain themes • Tendency to rationalization and absurd rumination
4. Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment	<ul style="list-style-type: none"> • Musically gifted – enhanced perception of pitch • Sensitivity to noise, seeks quietness • Sensitivity to smell
<i>C. Symptoms must be present in the early developmental period</i>	<i>Onset in early childhood</i>
<i>D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning</i>	<i>Inability to attend normal school due to their odd behaviors</i>
<i>E. These disturbances are not better explained by intellectual disability</i>	<i>Intelligence normal or above normal</i>

Grunya Efimovna Sukhareva (Груня Ефимовна Сухарева)

The Kiev-based Russian child psychiatrist and researcher Grunya Efimovna Sukhareva (Груня Ефимовна Сухарева) (1891 – 1981), who later chaired the childhood section of the Moscow Society of Neurologists and Psychiatrists, was 5 years senior to Kanner and 15 years senior to Asperger (**Fig 1, 2**). Sukhareva founded a therapeutic school for children with psychiatric problems at the Psychoneurological Department for Children in Moscow; here she made clinical observations that formed the basis for her later research. As early as 1926 she published (under a misspelled name) a detailed description of autistic traits in children in the *Monatsschrift für Psychiatrie und Neurologie*, a scientific German psychiatry and neurology journal (Ssucharewa 1926). Few other journals were in existence in the field at that time, but Asperger apparently knew of this one, as he cited an article on child psychiatry published there in 1938 (Schröder 1938). Moreover, Sukhareva and Asperger were both aware of Kretschmer’s early work and cited different editions of the book “Physique and Character” (Kretschmer 1922). Sula Wolff, who introduced the English translation of Sukhareva’s original article in 1996 (Ssucharewa and Wolff 1996), insinuates that Hans Asperger must have been aware of Sukhareva’s article but refrained from citing it.

Figure 1. Sukhareva Grunya Efimovna. (Reproduced with permission from Goriunov A.V.).



Figure 2. Grunya Sukhareva's résumé

Grunya Efimovna Sukhareva (Груня Ефимовна Сухарева) (1891 - 1981)	
Born on November 11, 1891 in Kiev, Russian Empire	
1915 –	Medical degree, Kiev Medical Institute.
1917 – 1921	Psychiatrist at the mental hospital of Kiev.
1919 – 1921	Head of Department of Defectology at the Institute of Mental Health of Children and Adolescents.
1921 –	Organized a therapeutic school and neuropsychiatric treatment facilities for children and adolescents in Moscow.
1928 – 1933	Associate Professor at the 1 st Moscow Medical Institute.
1933 – 1935	Head of Department of Psychiatry at Kharkov Psychoneurological Institute.
1935 –	Organized the Department of Child Psychiatry at the Central Institute for Postgraduate Medical education, and headed it until 1965.
1938 – 1969	Head of Psychosis Pediatric Clinic at the Institute of Psychiatry RSFSR (Russian Soviet Federative Socialist Republic). Research supervisor at Kashchenko Psychiatric Hospital. Board member of Soviet Union, Russian Federation and Moscow Society of Neurologists and Psychiatrists. Chair of the childhood section of the Moscow Society of Neurologists and Psychiatrists. Awarded Honored Scientist of the RSFSR (Russian Soviet Federative Socialist Republic).
Died April 26, 1981 in Moscow.	

Sukhareva's contribution to the field of autism spectrum disorder

Sukhareva's case reports were based on observations of six boys during a two year period at the therapeutic school for children with psychiatric problems at the Psychoneurological Department for Children in Moscow. In her original article, first published in Russian in 1925 (Sukhareva 1925) and in the following year in German under the title "Die schizoiden Psychopathien im Kindesalter" (Sukhareva 1926), she discussed the schizoid (eccentric) psychopathy according to the classification by Eugen Bleuler and Ernst Kretschmer. In one of her later publications, "Lectures in clinical childhood psychiatry", which has still only been published in Russian (Sukhareva 1959), she replaced the term "schizoid psychopathy" with "autistic (pathological avoidant) psychopathy". Today, the term "schizoid personality in childhood" has the same meaning as autism (Wolff 1991). Sukhareva reported psychiatric symptoms as well as certain anthropomorphic aspects and motor impairments (**Fig 3**). She presented structured, elegant and

detailed descriptions of the children that were also vivid enough to give the reader the sense of being able to recognize each one of them in the street, or at least in a classroom. Also, Sukhareva noted a paradoxical combination of high levels of intelligence and poor motor functioning in all of her cases. In addition, Sukhareva postulated that the cerebellum, basal ganglia and frontal lobes were the anatomical substrate of the schizoid psychopathy in childhood. Modern neuroimaging studies of autism spectrum disorder have shown that these areas are indeed implicated in the condition (Ecker et al. 2012; Pagani et al. 2012; Suzuki et al. 2013).

The children in Sukhareva's case series were admitted to a therapeutic school, and received both social and motor skills training during woodwork, painting and gymnastics classes. This specific training facilitated their progression into an ordinary school, illustrating how modern Sukhareva was in her ideas of how these children should be helped.

Figure 3. Characteristics of schizoid psychopathy of childhood (1926)/autistic psychopathy of childhood (1959) according to Sukhareva G.E., translated by Sula Wolff (1996).

An odd type of thinking

- a) A tendency toward abstraction and schematization (the introduction of concrete concept does not improve but rather impedes thought processes);
- b) Tendency to rationalization and absurd rumination. This feature often marks the personality out as odd.

An autistic attitude¹

- a) Tendency toward solitude and avoidance of other people from early childhood onwards;
- b) They keep themselves apart from their peers, avoid communal games and prefer fantastic stories and fairy tales;
- c) They keep themselves apart from other children, find it hard to adapt to and never fully integrate themselves among other children.

Emotional life

There is a certain flatness and superficiality of emotions. Mixture of insensitive and oversensitive elements: case 1 had affective sluggishness as well as exaggerated sensitivity; case 2 demonstrated increased irritability resulting in explosive emotional outbursts; case 5 had generally calm mood state and was at the same time passionately tender towards some of the people close to him; case 4 was a gloomy, irritable misanthrope but also a tenderly loving son.

Other characteristics were as follows²

- a) *Tendency towards automatism*: Sticking to tasks which had been started and a psychic inflexibility with difficulty in adaptation to novelty.
- b) *Impulsive, odd behavior*
- c) *Clowning, with a tendency to rhyming* and stereotypic neologisms
- d) Heightened suggestibility, in some cases unmotivated obstinacy
- e) A tendency to *obsessive compulsive behavior*

Motor impairments

- a) Clumsiness, awkwardness, abruptness of movements, many superfluous movements and synkinesias
- b) Lack of facial expressiveness and of expressive movements (manneristic; decreased postural tone; oddities and lack of modulation of speech)

All patients were of asthenic body build

¹probably corresponding to DSM-5 social interaction and communication impairments

² probably corresponding to DSM-5 restricted, repetitive patterns of behavior, interests or activities

The matter of citation

The non-German-speaking world was unfamiliar with the work of Asperger until 1981, when Lorna Wing introduced his work in English in an article that has now been cited almost 1,500 times (Wing 1981). However, as early as 1938 Asperger presented a lecture “Das psychisch abnorme Kind” on a seven-year-old boy who exhibited behaviors that were labeled as “Autistische Psychopathen”. Six years later, in 1944, Asperger reported four additional cases of children aged 6-11 years, but in the following discussion he talked about hundreds of children that he had observed over the years, outlining their patterns of behavior. Asperger specifically stated that his aim was to report on a personality disorder already manifest in childhood, which to his knowledge had not yet been described (Asperger 1944). Nevertheless, the clinical characteristics described by Asperger very closely resemble those of the children with “schizoid personality” reported by Sukhareva (Ssucharewa and Wolff 1996). It is not always the first describer of a clinical entity that will later be remembered. The French physician Jean Marc Gaspard Itard provided the first clinical account of vocal and motor tic disorder in 1825 (Itard 1825). Sixty years later, Georges Albert Édouard Brutus Gilles de la Tourette published nine case reports with "convulsive tic disorder" and suggested it should be a new clinical category (Gilles de la Tourette 1886). Rightly or not, it was de la Tourette's name that became associated with this particular disorder. It is important to note that de la Tourette cited Itard's work in his publication, while Asperger never cited Sukhareva.

Who should be honored?

Hans Asperger changed the world's outlook on autistic children, and his image is that of a kind, open-minded, cautious and observant clinician tending to unfortunate children. However, most likely Asperger took Sukhareva's intelligent observation and made it his own. In his defense, one could speculate that during the Second World War it would have been impossible to publish an article citing a female Jewish scientist from the Soviet Union. It is possible that Asperger came to the conclusion that Sukhareva's paper would be forgotten anyway, and as it turns out he would have been quite right. Ironically, Asperger's work was similarly forgotten for almost 40 years.

Sukhareva's original article was published almost two decades prior to Asperger's and Kanner's work. Being a citizen of the Soviet Union and publishing in German and Russian, in addition to being a woman in the 1920s, is admittedly not a successful formula for achieving international acclaim. Sukhareva is remembered locally; a commemorative article was recently published in Russian in honor of the 120th anniversary of her birth (Goriunov 2012).

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