CHAPTER 4 / Leo Kanner's theory of early infantile autism (1): an inborn inability to form affective contact

Leo Kanner was a child psychiatrist working in America, who, in 1943, published one of the earliest and most influential papers on autistic children. In contrast to later conceptualisations of autism as a behavioural or cognitive disorder, Kanner defined it as an emotional disorder. He believed that he had identified a new childhood disorder, which he called early infantile autism.

Kanner described this disorder in two ways. First, he said that autistic children have an inability to form emotional ties with other people. Like Hans Asperger, Leo Kanner turned to the term 'contact' to describe this feature of autism: he wrote that all autistic behaviour roots in an inability to develop *affective contact*. Second, Kanner said that the fundamental features of early infantile autism are two desires: a desire to be alone and a desire to keep the environment exactly the same.

It remains unclear how he related these two descriptions. Are they two sides of the same coin, the inability being the negative formulation and the desires being the positive? Is what is seen as an inability by observers, a desire from the perspective of the children themselves? Did the inability cause the desires, or the other way around?

This is the first of two chapters on Kanner. The first focuses on the inability to make affective contact on the one hand and the desire to be alone and to keep the environment exactly the same on the other hand. I will trace these ideas through Kanner's experience, problems and concepts, and finally his theory of autism. The next chapter focuses on the impact of this emotional disorder on the personality as a whole. In that chapter, I shall discuss the controversial metaphor of 'refrigerator mothers', the influence of George Frankl and Adolf Meyer and Kanner's relationship to Hans Asperger's work.

The current chapter, then, lays the foundation for these discussions. It starts with a biography, followed by a section on the most central experiences and problems to which Kanner responded. The most important problem

addressed by his theory of autism was how to make sense of the parental complaint that their children reacted indifferently to the presence of other people, even to their own parents, but became very upset when their parents interfered with their toys or their routines. I will then introduce Kanner's conception of affective contact, which gave him the idea that the emotional problems of these children were not a symptom of any known disorder, such as schizophrenia, but formed a new disorder. The last section will show how Kanner developed a theory of early infantile autism.

4.1 Biography[441]

'Leo' Kanner was born Chaskel Leib Kanner on 13 June 1894. He was the first child of Clara Reisfeld and Abraham Kanner. They later had four more children, three boys and one girl. The Kanner's lived in Klekotów (now Klekotiv), a small town in Galicia, which at that time was part of the Austrian-Hungarian Monarchy, near the Russian border; it is now part of Ukraine. Leo last saw Klekotów when he was nine years old.

Leo's family were orthodox Jews. He grew up in an environment with various languages, but Yiddish was his mother tongue. He was initially home schooled: his father taught him to read the Bible in Hebrew and he learned German and Polish from a tutor.

When he was eight years old, Leo went to a Jewish elementary school in Brody, a nearby city with a large and influential Jewish population. The other family members moved to Brody a year later. Leo was a good student, who loved reading, and who spent a lot of time in libraries and bookstores. After primary school he went to a gymnasium, still in Brody, where he learned Greek and Latin. All the while, his father continued his Hebrew education.

In 1906, the Kanner's moved to Berlin, where Leo went to a *Realgymnasium*. Here he learned French. In 1913, he graduated top of his class. When he

[441] Unless specified otherwise, the information in this section comes from: American Psychiatric association Foundation, Melvin Sabshin, M.D., Library & Archives, Leo Kanner, M.D. papers, Archives Box 100695, folder 7: Autobiography (2) typed copy; Eric Schopler, Stella Chess and Leon Eisenberg, "Our memorial to Leo Kanner (1981)"; W.E . Baxter, *Leo Kanner (1894–1981) Papers Archives Finding Aid* (1985) and Victor D. Sanua, "Leo Kanner (1894–1981): The man and the scientist"(1990).

was 16, Leo began to tutor boys who did not do well in school. This was his first experience with guiding young people.

Leo decided to study medicine and enrolled in the University of Berlin. Only a year into his studies, the First World War broke out, and he joined the Austrian army. In 1918, Kanner resumed his studies, which included a course on paediatrics, taught by Adalbert Czerny. A year later Kanner graduated, passing the first state examination. Shortly after his graduation Kanner became a German citizen through naturalization. This allowed him to become an intern at the *Second Medical Clinic* of *the Charité*, the university hospital. Here he obtained his Medical Doctorate, in 1921.

In January 1921, at the age of 26, Leo Kanner married June (Dziuna) Lewin, after an engagement of five years. This turned out to be a marriage for life and they celebrated their 60th wedding anniversary just before he died.

After obtaining his medical degree, Kanner continued to work at the *Charité*, now at the gastroenterological section of the outpatient unit. At the same time, he started a private practice out of his three-room apartment. He worked as a general practitioner for three years.

In 1923, June gave birth to a daughter, Anita. Around that time, a colleague convinced Kanner to emigrate to the United States and secured a position for him as assistant at the Yankton State Hospital (South Dakota). On February 11 the next year, Leo Kanner, his wife, and his 14 months old daughter Anita, arrived in the United States. When he arrived, Kanner had only a basic grasp of the English language. For 4,5 years he worked at Yankton as a psychiatrist, although neither he nor his colleagues had substantial training in psychiatry. In 1925, Kanner passed the Medical Board exam and obtained his medical license.

When in May 1928 he read a call for a three-year fellowship in psychiatry at the *Henry Phipps Psychiatric Clinic* of the *Johns Hopkins Hospital* in Baltimore, Kanner jumped at the chance to improve his knowledge of psychiatry. In October that year he started his fellowship, under supervision of Adolf Meyer. Kanner later recalled that "[c]oming from a pluricultural and plurilingual background" and having emancipated himself from "the theological and political absolutism" of his youth, he fell "easily in step with Meyer's practiced advocacy of

a scientifically objective, self-scrutinizing, pluralistic and relativistic attitude".[442]

After two years at *Phipps*, Kanner was known for his psychological insight and patience in dealing with parents; one mother said: "Kanner is the first person who ever understood my child."[443] When he finished his fellowship, Kanner was asked by Adolf Meyer and the chief of paediatrics, Edwards E. Park. to start a child psychiatry service at the paediatric clinic of *Johns Hopkins* – the first of its kind. Park observed that paediatricians could not adequately care for children with behaviour disturbances because they lacked the necessary knowledge, connections and time. Park therefore asked Kanner to oversee the care of children with behaviour disturbances and to also educate the paediatric staff. The education included teaching an elective course on Child Psychiatry to fourth-year students, focussing on "[p]ersonality difficulties of children, with special consideration of practical problems met in general and pediatric practice".[444]

One year into his new function, Kanner and June had a son, Albert.

In 1933, Kanner became Associate Professor of Psychiatry at *Johns Hopkins*. Because *Johns Hopkins* allowed there to be only one full professor in each department, he was not elevated to the rank of Professor of Child Psychiatry until two years before his retirement.

In 1935, Kanner published the first American textbook on child psychiatry. It would go through four editions (the last in 1979). The first edition was steeped in the psychobiological terminology of Adolf Meyer, but in later editions Kanner's approach became more pluralistic. His textbook was translated into Spanish, Japanese, Italian and Portuguese.

Two groups of children were of special concern to Kanner. First, from 1938, he worked on children with early infantile autism, a syndrome that he would delineate and first publicly describe in 1943. Kanner brought some of

[442] Kanner, "The thirty-third Maudsley lecture: Trends in child-psychiatry" (1959), p. 589.
[443] Kanner, "Supplying the psychiatric needs of a pediatric clinic" (1932), p. 407.
[444] *The Johns Hopkins University Circular,* 1938-1943. JScholarship, https://jscholarship.library.jhu.edu/. Accessed 20 August 2021; Kanner, "The development and present status of psychiatry in pediatrics" (1937), p. 432.

these autistic children home and Albert would play with them on the living-room floor.[445]

Less well known is that Kanner was also deeply concerned with children with mental disability. In the first edition of his textbook, he devoted a section of 7 pages to "intellectual inadequacy" – a term he preferred over the terms 'feeblemindedness' and 'mental retardation' which were then common. In 1938, Kanner made the newspapers when he published a report detailing the detrimental consequences of the release by the court of 166 patients with intellectual disability from the *Maryland State Training School for the Feebleminded*.[446] Four years later, Kanner was elected chair of the *Section on Mental Deficiency* of the *American Psychiatric association*.[447] Over the span of his career, he published several papers on the subject. In 1954, the *association for the Help of Retarded Children* praised his "outstanding contributions in the field of medicine for the help of the mentally retarded" and six years later he received an award from the *National Organization for Mentally Ill Children*.[448]

Albert, who grew up to become an ophthalmologist, recalled that his father "preferred his work to any other activity" and "maintained a rigorous schedule of teaching, writing, lecturing and patient care".[449] He also remembered that his father protested against being completely identified with his work on early infantile autism, saying "I've done plenty of other things in my career".[450]

Between 1938 and 1943, Kanner's direct colleagues at *Johns Hopkins* were Adolf Meyer, Wendell S. Muncie, Henry M. Fox, Leslie B. Hohman, Jacob H. Conn, Georg(e) Frankl, and Erich Benjamin, among others.[451]

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[445] Adam Feinstein, *A history of autism: Conversations with the pioneers* (2010), p. 26.
[446] Kanner, "Habeas Corpus releases of feebleminded persons and their consequences" (1938).
[447] American Psychiatric association, "Proceedings of the Ninety-Eighth Annual Meeting" (1942), p. 273.
[448] Bertram S. Brown, "A task force with a goal" (1971), p. 3.
[449] Foreword to Victor D. Sanua, "Leo Kanner (1894–1981): The man and the scientist"(1990), p. 3.
[450] Adam Feinstein, *A history of autism: Conversations with the pioneers* (2010), p. 206.
[451] *The Johns Hopkins University Circular*, 1938-1943. They all published papers, on various subjects in the field of psychiatry.

In 1963, Kanner's daughter Anita died of cancer at the age of 42.[452] She had been a social worker, working to improve psychiatric services for adolescents.

In August 1970, Kanner formed "a task force with a goal", namely founding a scholarly journal for child psychiatry.[453] Together with Leon Eisenberg, Michael Rutter, and others, he founded the *Journal of Autism and Childhood Schizophrenia* in 1971, renamed *Journal of Autism and Developmental Disorders* in 1979.

After his retirement, Kanner served as Visiting Professor at the Universities of Wisconsin, Minnesota, and Stanford. Until a few years before his death, he had a private consulting practice.

Leo Kanner died on April 3rd, 1981, at the age of 86.

4.2 Kanner's problems

Leo Kanner worked in an institutional context which, at least at the start, was unique in the United States: a fulltime psychiatric consultation service in a large paediatric clinic. It was established in November 1930.[454] The consultation service entailed that paediatricians could consult Kanner at any time (before, during or after their contact with patients) and if deemed necessary they could refer patients to him altogether for psychiatric diagnosis and treatment.[455]

At that time, child psychiatry did not yet exist. Indeed, the term was not used until three years later, when Moritz Tramer first spoke of *Kinderpsychiatrie*; its English equivalent only became popular after Kanner chose it as the title for his textbook.[456] The next year, Tramer founded the *Zeitschrift für Kinderpsychiatrie* and in 1937 the first international congress on child psychiatry was held.[457] This emerging field of child psychiatry was to stand in relation

[452] Leon Eisenberg, "Anita Gilbert" (1966).
[453] Bertram S. Brown, "A task force with a goal" (1971).
[454] "Supplying the Psychiatric Needs of a Paediatric Clinic" (1932), p. 400; "The development and present status of psychiatry in pediatrics" (1937), p. 431.
[455] Kanner, "Prognosis in child psychiatry" (1937), p. 928.
[456] Kanner, "Child Psychiatry in the Framework of Western society" (1967), p. 8.
[457] Tramer, "Zum ersten internationalen Kongreß für Kinderpsychiatrie" (1937).

to psychiatry as paediatrics stood in relation to general medicine.[458] When Kanner started the consultation service, in 1930, this was still in the future and all that existed was a number of separate clusters that were not yet integrated into a single discipline:

> Child psychiatry had started out as a number of clusters of building stones, each at first removed from the others in not too splendid isolation: the care of the mentally retarded, developmental psychology, education, the conditioned reflex theory, psychoanalysis, the child guidance clinics, contributions from neurology, pediatrics, biochemistry, and sociology, and more recently the learning theories".[459]

At that time, child guidance clinics came closest to Kanner's psychiatric consultation service. They were community-oriented services working with parents and teachers to address the everyday problems of children. These services had been first established eight years earlier. Kanner praised these clinics for paying attention not only to internal forces or drives, but also to influences from the social environment.[460] These clinics were staffed by an interdisciplinary team consisting of a psychologist, a social worker and a psychiatrist. However, there was a significant difference between the psychiatrists working in these teams and Kanner: the former worked remote from medical centres, whereas Kanner worked in the medical setting of a large paediatric clinic.[461]

This paediatric clinic had opened in October 1912 in the *Harriet Lane Home*, a 5-story building that at the time of opening could house 100 patients.[462] The clinic was part of *The Johns Hopkins Hospital* and it was the first children's clinic in the United States associated with a medical school. Children from a few months to 14 years old would come to the clinic for diagnosis and treatment.

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458 "The scope and goal of psychotherapy with children" (1963), p. 370.
459 Kanner, "Child Psychiatry in the Framework of Western society" (1967), p. 9.
460 Kanner, "The scope and goal of psychotherapy with children" (1963), p. 368-9.
461 Kanner, "The future of child psychiatry " (1964), p. 290; "Child Psychiatry in the Framework of Western society" (1967), p. 7.
462 "Lane Home opens Oct. 1" (1912), p. 12.

Kanner was assigned a small examining room and was on daily call to the wards and the dispensary.[463] He would take care of "psychiatric emergencies and immediate problems in the wards, such as delirium, acute excitements, violent resentment of hospitalization, psychogenic vomiting, or excessive masturbation".[464]

At first, Kanner worked alone, but, in 1931, a secretary and a well-trained psychiatric social worker were added to the psychiatric consultation service.[465] This extension was necessary: there was "a steady flow of referrals from the wards, outpatient divisions and the private consultation unit".[466] According to Kanner, up to 70 per cent of children seen by paediatricians had (also) difficulties "rooted in their personalities and in their modes of interpersonal relationships rather than solely in somatic disorders"[467] and 10 per cent was referred to him for psychiatric diagnosis and treatment.[468] In the 1930's, psychiatric consultation was requested by paediatricians at the *Harriet Lane Home* for 400 children a year, on average, and that number would have been higher had the small staff been able to handle it.[469]

This unique setting, of "close contact with the staff of a large paediatric clinic"[470] exposed Kanner to a wider range of children, including infants under three years old, and with a greater range of problems, than would have been the case had he worked in a child guidance clinic.[471]

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463 Kanner, 'The contribution of a psychiatrist" (1935), p. 560.
464 Kanner, "The contribution of a psychiatrist as a member of the pediatric hospital staff" (1936), p. 560.
465 Kanner, "Supplying the psychiatric needs of a paediatric clinic' (1932), p. 404.
466 Kanner, "Psychotherapy of children" (1941), p. 498.
467 Kanner, "The pediatric-psychiatric alliance" (1938), p. 71; "Psychiatry: its significance in pediatrics" (1943), p. 51.
468 Kanner, "The contribution of a psychiatrist" (1935), p. 559; idem, "Liaison Work in Psychiatry in the Department of Pediatrics" (1935), p. 80; idem, "The application of psychiatry to general medicine" (1937), p. 551.
469 Kanner, "Supplying the psychiatric needs of a paediatric clinic' (1932), p. 404l "The application of psychiatry to general medicine" (1937), p. 551.
470 Kanner, "The significance of the complaint factor" (1933), p. 177.
471 Kanner, "The training of the psychiatrist in child guidance" (1947), p. 359-60; "Psychiatry: its significance in pediatrics" (1943), p. 51.

4.2.2 The problem of understanding personality and behaviour problems

Kanner discerned three tasks for the new field of child psychiatry: clinical work with children, educating the public and research.[472] He was not concerned with children who were well-behaved and healthy, but only with those children who posed some kind of 'problem' to adults. Adults, after all, brought children to Kanner with a complaint. In dealing with these complaints, Kanner wanted to foster an attitude that was concrete rather than abstract and that focussed on a plain description and grouping of the facts of the case. I will now elaborate on these attitudinal requirements.

First, Kanner emphasized that the *whole range* of children's difficulties must be considered. Child psychiatrists should attend to all behaviour disorders: "a vast range of major and minor deviations from vaguely defined and variously considered norms of general maturation and specific performances".[473] Thus, in both his clinical work and his academic reflection, he addressed all behaviour of children that adults deemed undesirable for some reason, not just severe disorders.[474]

The second requirement was *focussing on the complaint.*[475] When parents came to the clinic with their child, Kanner would simply ask them 'what is the complaint?' He would then record the answer verbatim and unaltered, including side-marks. To this answer he would then add his own formulation of the complaint, with an indication of its nucleus. 'The complaint' was not just

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[472] Kanner, "Psychiatric problems in children" (1942), p. 572.

[473] Kanner, "Behaviour disorders in childhood" (1944), p. 761. See also his "Early behaviour problems as signposts to later maladjustment" (1941), p. 1261: "The term 'behavior problems of children,' as it is used in psychiatric literature as well as in common parlance, covers a vast territory. It includes the concomitants of alterations of cerebral tissue and endocrine functioning, deficiencies arising from inadequate endowment, failure to comply with standards of conventional conduct, the results of devious child rearing, gropings during the process of establishing daily routine and interpersonal relationships, and more or less disturbing reactions to situations involving anxiety, insecurity, resentment and frustration."
In addition to the term 'behaviour disorders' he used a range of others terms to denote the objects of child psychiatry, such as "personality difficulties", "personality disorders", "abnormal reactions", "psychopathology of childhood", and "behaviour problems".

[474] Leo Kanner and Sander E. Lachman, "The contribution of physical illness to the development of behavior disorders in children" (1933), p. 607; idem, "The significance of a pluralistic attitude in the study of human behavior" (1933), p. 36; idem, "The development and present status of psychiatry in paediatrics" (1937), p. 431-2.

[475] Kanner, "Supplying the Psychiatric Needs of a Paediatric Clinic" (1932), p. 104; idem, "The significance of the complaint factor" (1933); idem, "Psychopathological problems of childhood" (1935), p. 588-9; idem, *Child psychiatry* (1935), p. 15.

another term for 'symptoms'. The complaint was so important to Kanner because he believed that whereas symptoms are detached signs of and underlying condition, the complaint was an entire clinical picture, including the child's "relationships and life situation".[476] Whereas symptoms may be similar in 'cases' with the same disorder, the complaint in all its complexity is unique for each child. Kanner sometimes used the term 'profile' to describe such an individual clinical picture. He felt a strong obligation "to study each individual child with his own unequalled profile".[477] Such a profile would contain all 'determinants' of the child's condition: genetic, cultural, physical, material, educational and emotional.[478] Thus, in formulating the complaint, Kanner considered not just what the complaint was but also *whose* complaint it was.[479] For example, one third of the children were brought to him with a complaint of poor progress or conduct at school; Kanner would then ask himself whether this was a mentally handicapped but hard working child, a child who obsessed over grades that were not that bad, or an average child who could not live up to the perfectionistic standards of his parents.[480]

Kanner's third, related, attitudinal requirement was that physicians in writing down the complaint would *avoid abstractions*. When Kanner started working at the *Harriet Lane Home*, refer slips were written hastily, in vague and general terms, such as 'neuropathic', 'neurotic', 'constitutionally inferior' and 'mentally retarded'.[481] In the face of the bewildering spectre of concepts and theories in psychiatry many paediatricians felt overwhelmed and inferior. He taught paediatricians to find security in "the facts": realities that were concrete and directly demonstrable.[482] Kanner was fond of saying that he treated children, not cases: that some children have 'the same' disorder is an abstraction, the concrete facts are that each child is a unique human being with a unique

[476] Kanner, "Behaviour disorders in childhood" (1944), p. 764.
[477] Kanner, "The children haven't read those books: reflections on differential diagnosis" (1969), p. 9.
[478] Kanner, "Feeblemindedness: absolute, relative, and apparent" (1948).
[479] Kanner, "Prognosis in child psychiatry" (1937), p. 926.
[480] Leo Kanner and Sander E. Lachman, "The Contribution of a Psychiatrist as a Member of the Pediatric Hospital Staff" (1935), p. 559; Kanner, "Prognosis in child psychiatry" (1937), p. 926.
[481] Kanner, "The significance of the complaint factor (1933)", p. 177.
[482] Kanner, "Prognosis in child psychiatry" (1937), 922-24; idem "Psychotherapy of children" (1941), p. 499

history.[483] He warned paediatricians for the fallacies of homogeneity and categorical absoluteness: he stressed that 'the' feebleminded are very different from each other and show varying degrees of 'inadequacy'.[484] Avoiding these fallacies required a revision of diagnostic practice: Kanner taught paediatricians "to formulate the problem briefly and concisely" and to express the facts "lucidly in plain English, steering clear of terminologic [sic] confusions and generalizations".[485]

Kanner's fourth and final attitudinal requirement was that, *after* the unique, individual, profiles of many children had been determined, it would be useful to group similar profiles under a single heading, for example 'schizophrenia'.[486] Kanner did not think of these headings as disease entities, as Emil Kraepelin had, but rather as 'types', 'patterns' or 'sets' of individual profiles.[487]

4.2.1 The problem of psychiatric-paediatric collaboration

Kanner was in favour of interdisciplinary collaboration in general: he called for the "efficient working together of the parents, the schools, the school physicians, the psychiatrist, the social workers, the juvenile courts, and the welfare agencies".[488] Kanner believed that all disciplines working with people had the same interest, namely "the overt as well as the implicit activities of the human individual receiving impressions from and projecting himself upon his environment".[489]

Then again, given Kanner's position, his principal concern was with the role of paediatricians and psychiatrists within this combined effort. The first problem Kanner encountered in the unique setting of a psychiatric consultation

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[483] Kanner, "Psychological Care of the Sick Child" (1942), p. 2; "Psychiatry: its significance in pediatrics" (1943), 57
[484] Kanner, "Exoneration of the feebleminded" (1942), p. 18.
[485] Kanner, "The Contribution of a Psychiatrist as a Member of the Pediatric Hospital Staff" (1935), p. 559.
[486] Kanner, "The significance of a pluralistic attitude in the study of human behavior" (1933), p. 35; idem, "The children haven't read those books: reflections on differential diagnosis" (1969), p. 9.
[487] Kanner, "Modern trends in psychiatry" (1937), p. 481; *Child psychiatry* (1948), p. 209. Kanner further organized these types in larger groups but also relativized his own groupings See The significance of the complaint factor (1933), p. 177; "psychiatric problems in children" (1942); "Behaviour disorders in childhood" (1944), p. 765
[488] E.g. Kanner, "Mental hygiene in elementary and secondary schools" (1933), p. 12.
[489]Kanner, 'The significance of a pluralistic attitude in the study of human behavior. (1933), p. 30.

service at a large paediatric hospital was that paediatricians had to collaborate closely with him in his role of child psychiatrist. This collaboration was not a matter of course. In the first decades of the 20th century, psychiatry and paediatrics did not seem to have anything in common.[490] Since psychiatric disorders were observed very rarely before puberty, psychiatric interest in children was limited to the most severely mentally handicapped.[491] As for paediatricians, they received no psychiatric training and the diagnosis and treatment of the kind of behaviour problems that were commonly found in children had been taken out of their hand hands by non-medical professionals, notably teachers and psychologists.[492] When in the 1920s child guidance clinics began to address these common problems, paediatricians were not included in their interdisciplinary teams.[493]

For such reasons, it was not until the 1930s that the idea was born of a closer collaboration between psychiatrists and paediatricians. [494] Paediatricians became more psychiatry-conscious, as more articulate parents began to demand mental as well as physical treatment of their children.[495] Psychiatrists became interested in childhood in it is own right, not just as a source of adult problems. As the first psychiatrist working at a paediatric hospital, Kanner was at the forefront of this new collaboration and had to warm paediatricians to the idea. In so doing, his strategy was to show the practical usefulness and scientific rigor of psychiatry.[496]

For Kanner, the consultation service for individual patients was just the basis for a wider educational approach, aimed at giving paediatricians a base of "psychiatric intelligence".[497] He invited paediatricians to be present during

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490 Kanner, "The development and present status of psychiatry in pediatrics" (1937), p. 418.
491 Kanner, "The pediatric-psychiatric alliance" (1938), p. 72.
492 Kanner, "Work with psychobiological children's personality difficulties" (1934), p. 403.
493 Kanner, "The development and present status of psychiatry in pediatrics" (1937), p. 422.
494 Kanner, "The development and present status of psychiatry in pediatrics" (1937), p. 423; idem, "Modern trends in psychiatry" (1937), p. 482. See Marga Vicedo and Juan Ilerbaig, "Leo Kanner's call for a pediatric-psychiatric alliance" (2020).
495 Kanner, "The pediatric-psychiatric alliance" (1938), p. 73.
496 Kanner, "The contribution of a psychiatrist as a member of the pediatric hospital staff" (1935), p. 558. In the beginning, Kanner set three aims for himself (p. 562): being of service to children with behaviour and personality disorders, demonstrating that psychiatric methods are objective and common sensical and teaching paediatricians to treat the whole patient, as a unique individual, and not just attend to his organs and tissues.
497 "Liaison work in psychiatry" (1935), p. 81-82; idem, "Supplying the psychiatric needs of a pediatric clinic' (1932), p. 403-4.

his contact with children and their parents. In case of referrals, a copy of the complete psychiatric record was sent back to them, so as to be included in the case history. Kanner participated in their weekly staff conferences, during which he would sometimes present a case of his own. He organized bi-weekly lectures about child psychiatry for the paediatric staff and gave lectures to medical students as part of their training in paediatrics.

In all this, Kanner found it important that behaviour and personality problems of children would be approached *medically*, by physicians within a *clinical* setting.[498] Although Kanner valued the contribution of other professionals, he was also aware of their of lack of schooling in physical health. Child guidance clinics and schools were isolated from medicine and only concerned with the mental wellbeing of children. Kanner considered this separation of mental problems and physical problems a symptom of an artificial separation of mind and body that he found very problematic. In his view, the discipline best prepared to deal with the child as a whole and with the whole range of infantile personality and behavioural problems was child psychiatry, which in Kanner's view, "just as adult psychiatry, unquestionably belongs in de domain of medicine".[499]

4.2.3 The problem of incongruent emotional reactions

In 1938, being one of the leading child psychiatrists in the States, Kanner received a thirty-three-page letter from Beamon Triplett, an attorney from Forest, Mississippi. In the letter, Beamon described the conduct and life history of his five-year-old son, Donald – according to Kanner he did so "in obsessive detail".[500] Kanner replied that he would like to observe Donald in his clinic. A date was set for the second week of October 1938, and the Triplett's embarked on a two-day journey by train to Baltimore.[501] On October 7, they first visited

[498] Kanner, "The training of the psychiatrist in child guidance" (1947), p. 360-361.
[499] Kanner, "Psychiatric problems in children" (1942), p. 574.
[500] Kanner, "Autistic disturbances of affective contact" (1943), p. 217; for context, see Dan Olmsted and Mark Blaxill, *The age of autism: mercury, medicine, and a man-made epidemic* (2010), p. 172-3; Steve Silberman, *Neurotribes: The legacy of autism and how to think smarter about people who think differently* (2016), p. 177; John Joseph Donvan and Caren Brenda Zucker, *In a different key: The story of autism* (2016), p. 30.
[501] John Joseph Don**o**van and Caren Brenda Zucker, *In a different key: The story of autism* (2016), p 33.

Kanner at Johns Hopkins.[502] Here is how Kanner recalled this experience, 35 years later:

> I was struck by the uniqueness of the peculiarities which Donald exhibited. […] [H]e was unable to carry on an ordinary conversation. He was out of contact with people, while he could handle objects skillfully. His memory was phenomenal. The few times when he addressed someone – largely to satisfy his wants – he referred to himself as "You" and to the person addressed as "I". He did not respond to any intelligence tests but manipulated intricate formboards adroitly.[503]

On October 14, Kanner examined Donald with Georg(e) Frankl at the *Harriet Lane Home*.[504] Kanner was puzzled by Donald's behaviour, which he had never seen before and which he had never seen described before.[505] He was not alone in his puzzlement. The next day, Donald was admitted to the *Maryland Nursery and Child Study Home*, where George Frankl and Eugenia Cameron examined him for two weeks. On October 27, Donald was shown to the staff of the *Henry Phipps Psychiatric Clinic* prior to the staff conference; during the conference, his case was discussed.[506] Like Kanner, the other psychiatrists present at the staff meeting did not know what to make of Donald's behaviour. Psychiatrist Wendell Muncie, who had a daughter with similar symptoms, believed that Donald's condition was "not in the literature"; others in the team considered "various possible explanations, from problems with ego development to word deafness and organic lesion".[507]

In the next five years, ten more children were brought to *Johns Hopkins* whose behaviour resembled Donald's and differed "markedly and uniquely from anything reported so far".[508] In January 1942, Kanner wrote in a letter: "I have followed a number of children, who present a very interesting, unique and as of

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[502] Ibid., p 319.
[503] Kanner, "The birth of early infantile autism" (1973), p. 93.
[504] Marga Vicedo and Juan Ilerbaig, "Autism in Baltimore, 1938–1943" (2021), p. 1158.
[505] Albert Zachik and Henry Wasserman, "Interview with Dr. Leo Kanner" (1976).
[506] Marga Vicedo and Juan Ilerbaig, "Autism in Baltimore, 1938–1943" (2021), p. 1157.
[507] Ibid., p. 1159.
[508] Kanner, "Autistic disturbances of affective contact" (1943), p. 217; idem, "Early infantile autism" (1944), p. 211.

yet unreported condition, which has both interested and fascinated me for quite some time".[509] This group of children was an "unpremeditated 'discovery' which was not the result of a specific search", which Kanner often described as a piece of serendipity: "a gift not originally sought for".[510]

What were the complaints of the adults who brought or referred these children to Kanner?

The complaint of Donald's parents was that he seemed to have no affection for other people but had strong emotional reactions when he was interfered with. Donald's emotional responses to the presence or absence of people were different than expected. Donald could occupy himself for a long time without demanding the attention of his parents. When his parents let Donald be, he seemed a happy child without a care in the world. At first, his parents interpreted this ability to entertain himself as 'goodness' and they were pleased with it.[511] Donald's parents were worried because he did not seem to feel for or to be interested in the people around him. Donald's parents were distressed that he only seemed concerned with lifeless objects, meaningless facts and rigid routines. His interactions with objects and people had to be consistent and predictable. Most of Donald's actions were "repetitions carried out in exactly the same way in which they had been performed originally"[512] and he required the same predictability of his parents. His happiness would turn into rage or panic when his parents tried to rearrange the objects, tried to deviate from fixed rituals or tried to interfere in another way.

Frederick also had unexpected emotional responses to his environment. A physician referred him to Kanner with the complaint that Frederick, according to his mother, was "afraid of mechanical things" such as her egg beater, and

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[509] Leo Kanner papers, Archives Box 100695, folder 24, American Psychiatric association Foundation, Melvin Sabshin, M.D., Library & Archives: Letter from Leo Kanner to Ernst Harms, dated 19 January 1942.
Muncie's daughter Bridget (under pseudonym Barbara K.) was the fifth case described by Kanner in "Autistic disturbances of affective contact". See Dan Olmsted and Mark Blaxill. *The age of autism: mercury, medicine, and a man-made epidemic* (2010), p. 173, 182, 350-351.
[510] "early infantile autism Revisited" (1968), p. 18; "The birth of early infantile autism" (1973), p. 93.
[511] Kanner, "Early infantile autism, 1943-1955" (1956), p. 92.
[512] Kanner, "Autistic disturbances of affective contact" (1943), p. 219.

was “perfectly petrified” of her vacuum cleaner, but didn’t like to be hugged and “acted as if people weren't there at all”.[513]

On February 2, 1943, the mother of Charles brought her four-year-old son to Kanner’s clinic with the complaint: “The most impressive thing is his detachment and his inaccessibility. He walks as if he is in a shadow, lives in a world of his own where he cannot be reached”; in contrast, he would “get severely excited and jump up and down in ecstasy” when spinning cylinders.[514]

The mother of Alfred complained that he had an “overattachment to the world of objects and failure to develop the usual amount of social awareness”.[515]

The general complaint, then, was that the emotional responses of these children seemed to be different than the situation required.

Kanner’s initial interest in Donald and children with similar (albeit unique) profiles, “went in the direction of observation and diagnosis”: he wanted to develop a diagnostic formulation that would help himself and his colleagues to understand “the intrinsic nature of the condition as related or unrelated to the intrinsic nature of other conditions”. [516]

“Diagnosing”, Kanner once wrote, “means knowing something well enough to be able to tell it apart from other things”.[517] In Kanner’s view, progress in psychiatric diagnosis has been made mostly by breaking ill-defined generalities up in carefully separated entities, “like an onion from which more and more layers were peeled off”.[518] Often the facts about the patient might be subsumed under several such diagnostic headings. This posed the question: to which of these different headings does the unique profile of this patient belong?

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[513] Ibid., p. 222-223.
[514] Kanner, "Autistic disturbances of affective contact" (1943), p. 235-236; idem, "Early infantile autism" (1944), p. 213; idem, "Early infantile autism" (1961), p. 3; idem, "Follow-up study of eleven autistic children originally reported in 1943" (1971), p. 135.
[515] Kanner, "Autistic disturbances of affective contact" (1943), p. 233.
[516] Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 416.
[517] Kanner, "Modern trends in psychiatry" (1937), p. 480.
[518] " Kanner, "The children haven’t read those books: reflections on differential diagnosis" (1969), p. 5; see further his "The Specificity of Early infantile autism” (1958), p. 110 and “Emotionally disturbed children: a historical review” (1962), p. 101.

Donald and the other children were originally presented to Kanner as being deaf, mentally disabled or schizophrenic, but on further inspection they did not meet the criteria for any of these three conditions.[519]

Seven of the eleven children Kanner initially described were considered deaf or hard of hearing.[520] The reason was that they did not respond to commands and questions by other people.[521] Initial testing by Kanner and his colleagues confirmed that their response to sounds were absent or inadequate. However, careful further inspection revealed that their hearing as such was not impaired.

Kanner at first considered that Donald and the other ten children might have Heller's disease, as in this syndrome a period of normal development is followed by regression, but this did not explain their difficulties with and lack of positive feelings about interactions with people.

Several children were brought in with the suspicion of mental disability; in the parlance of that day, they were called 'idiots', 'imbeciles' or 'feebleminded'.[522] Again, testing by Kanner and his colleagues initially seemed to confirm this: the children scored very low on standard intelligence tests. However, on further examination, their early history and their specific characteristics distinguished them from children with mentally disability. [523] For example, they had "excellent memory" for certain facts and an "astounding vocabulary".[524] These children were intelligent, and some parents even thought of their children as child prodigies.

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[519] Kanner, "Autistic disturbances of affective contact" (1943), pp. 242, 247, 248 ; idem, "Early infantile autism" (1944), p. 211. Another possibility considered but rejected by Kanner was that they suffered from a "degenerative organic process". Cf. Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 417; Kanner and Leonard I. Lesser, "Early infantile autism" (1958), p. 721. Kanner also considered the possibility of aphasia, but as their gestures were also affected, he rejected this possibility too. Cf. his "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 417.

[520] Kanner, "Autistic disturbances of affective contact" (1943), p. 244.

[521] Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 418.

[522] Kanner, "Autistic disturbances of affective contact" (1943), p. 242; "Early infantile autism" (1944), p. 211.

[523] Kanner, "Feeblemindedness: absolute, relative, and apparent" (1948), p. 391.

[524] Kanner, "Early infantile autism" (1944), p. 217.

Of the initial group of eleven children, two had been presented to Kanner as schizophrenic.[525] Kanner had seen his share of patients with schizophrenia[526] and was acquainted with the literature on the subject.[527] Kanner did notice certain remarkable similarities to this rare condition, notably the difficulty of establishing affective rapport.[528] Hence, Kanner considered the possibility of schizophrenia with insidious onset.[529] Were this the case then he would have expected that the period in which affective rapport was impossible was preceded by a period in which affective rapport had been possible. However, in these children, there was no such withdrawal from a previous period of affective rapport.[530] In addition, the children did not have hallucinations or delusions, as Kanner would have expected to be the case in childhood schizophrenia.[531] Kanner's conclusion was that Donald and the other children did not meet the criteria for childhood schizophrenia and must have a condition that "differs in many respects from all other known instances of childhood schizophrenia".[532]

None of these existing disorders was known to include the precise combination of features that was reported by the parents of Donald, Frederick, Charles and the other children. Then again, although Kanner could not diagnose Donald and the other children with any of the known psychiatric disorders, he could relate their condition to a *symptom* of several known disorders.

In the 1930's Kanner had already described, in several disorders, emotions that were not congruent with the situation; they did not fit the circumstances. Kanner first described this symptom in the 1935-edition of his textbook.[533] Emotions could be incongruent in quality (e.g. emotions triggered by a detail rather than the whole), in grounding (e.g. emotions that seem to lack

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525 Kanner, "Autistic disturbances of affective contact" (1943), p. 244.
526 Kanner, "Mental disturbances in adolescents" (1941), p. 519.
527 Kanner, *Child psychiatry* (1948), p. 706 ff; "Psychopathology of childhood: basic considerations" (1944), p. 33-34; Marga Vicedo and Juan Ilerbaig, "Autism in Baltimore, 1938–1943" (2021), p. 1163
528 Leo Kanner and Leonard I. Lesser, "Early infantile autism" (1958), p. 728.
529 Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 418; "Schizophrenia as a concept" (1960), p. 46.
530 Kanner, "Autistic disturbances of affective contact" (1943), p. 242.
531 Leo Kanner and Leonard I. Lesser, "Early infantile autism" (1958), p. 725; "Schizophrenia as a concept" (1960), p. 53.
532 Kanner, "Autistic disturbances of affective contact" (1943), 248; see also "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 418.
533 Kanner, *Child Psychiatry* (1935), p. 66-70.

all situational foundation) or in timing (e.g. emotional reactions that occur long after the situation to which they are a response is gone).[534] For example, in patients with schizophrenia, he described "uncontrolled outbursts entirely out of proportion to the responsible setting" and "outbursts of laughter or weeping" that "seem to come out of a clear sky and have no foundation whatever in the external situation".[535] In these patients, such incongruent emotions were one symptom among others and were part of a more general disorder that included other, non-emotional, symptoms.

The behaviour described by Donald's father in his first letter to Kanner also seem to involve incongruent emotions.[536] Beamon wrote that Donald "almost never cried to go with his mother", had "no apparent affection when petted" and never seemed "glad to see father or mother or any playmate".[537] His parents had expected, as any parent would, that their son would show affection towards them, but he did not. In contrast, Donald had stronger feelings (positive or negative) about objects. Donald was unusually interested in certain objects, which he played with in an unusual way: he "spun with great pleasure anything he could seize upon to spin" and "kept throwing things on the floor, seeming to delight in the sounds they made". He resented it when his parent tried to take such priced objects away. Conversely, Donald was "fearful of tricycles" and he seemed "to have almost a horror of them when he is forced to ride". He avoided self-propelling objects at all costs. Donald also became very upset when his parents deviated everyday rituals which persisted after the situation in which they originated was long gone and which Donald wanted to preserve without tolerating any change. For example, at mealtime, his mother had to say "'Eat it or I won't give you tomatoes, but if you don't eat it I will give you tomatoes" – something which his mother had said to him once and which she since had to repeat each time or Donald "squealed, cried, and strained every muscle in his neck in tension".[538]

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[534] Kanner, "Behaviour disorders in childhood" (1944), p. 772; Kanner, "Psychopathology of Childhood: basic considerations" (19), p. 5
[535] Kanner, *Child Psychiatry* (1935), pp. 66, 67.
[536] Kanner, "Autistic disturbances of affective contact" (1943), p. 218.
[537] Ibid.
[538] Ibid., p. 219.

What posed a problem for Kanner was that the incongruent emotions displayed by Donald seemed to be his main problem, rather than being a symptom of any of the known psychiatric disorders. In this sense, it posed a diagnostic and scientific problem for Kanner to solve.

4.2.4 The departmentalization problem

The framing of Kanner's first paper on these children, reveals that Kanner was not only concerned with incongruent emotions in general, but also more specifically with their interaction with children's intellectual performance.

A first clue is that in the co-editor's introduction to the special topic of which his article was a part, Kanner criticized the tendency in psychiatry, which dominated until the start of the 20th century, to emphasize cognitive abilities and achievements over emotions, effectively identifying mind with intelligence. By contrast, he applauded a new emphasis on "the individual's relations to his family and to people in general" that is, on "his emotional reactions to his specific life situation".[539] Kanner situated his paper within a larger shift, which he observed and stimulated, from an isolated focus on intelligence to (as he later put it) considering "the integrative relationship between test results, emotional factors and interpersonal give-and-take".[540]

A second clue is that Kanner started his paper with a quote from Rose Zelig's book *Glimpses into child life*, which had just come out: "To understand and measure emotional qualities is very difficult […] we are still unable to measure emotional and personality traits with the exactness with which we can measure intelligence."[541] The quote comes from a chapter entitled *Your child's emotions affect his learning*, in which Zelig argued that the importance of intelligence for learning is overstated while the role of emotions in learning is much more prominent than psychologists realized. Zelig gave an example from her own education. As part of her experimental psychology course, she had been instructed to open mechanical puzzle boxes, so as to remember what it is like to learn something. Zelig thought she would open the puzzle box in no time, but

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[539] Kanner, "Co-editor's introduction" (1943), p. 216
[540] Kanner, "Emotional disturbances simulating mental retardation" (1957), p. 54.
[541] Rose Zeligs, *Glimpses into child life: the twelve-year-old at home and school* (1942), p. 107. Quoted in Kanner, "Autistic disturbances of affective contact" (1943), p. 217.

it took her more than an hour. That night, in bed, she realized what had gone wrong: being emotionally upset had interfered with her ability to concentrate on the problem. In the same vein, then, Kanner believed that in Donald and the other children their emotions interfered with their intellectual performance.

Kanner expressed this in terms of 'emotional blocking'. He was critical of the way this term was used by psychoanalysts, who "speculated" mental disabilities "out of existence", by arguing that intellectual disability is not really intellectual, but is rather a secondary result of a restriction of the libidinal forces available for intellectual use.[542] However, Kanner applauded the more general insight that the unfolding of a child's potential for intellectual development "is guided, fostered or restricted by the emotional development which takes place".[543] He believed that emotional disorders can lead to poor intellectual functioning in children who do have a good intellectual endowment.[544]

Kanner held that in some cases, such as infantile psychoses, there is indeed only the appearance of mental disability. We have seen that the children like Donald were originally brought to him on the suspicion that they were 'feebleminded'. Kanner was adamant that this diagnosis was mistaken and that their "cognitive potentialities were only masked by the basic disorder".[545] That is why in his famous first paper on autistic disturbances, he claimed that "[e]ven though "most of these children were at one time or another looked upon as feebleminded, they are all unquestionably endowed with good *cognitive potentialities*".[546]

In Kanner's view, recognition that emotion may interfere with children's intelligence was a step towards the more general recognition that intelligence, emotion and cognition are not separate faculties but 'integrants' that form a seamless whole.[547] I will refer to this problem as the departmentalization problem, as it involves the division of the mind and, more generally, human

[542] Kanner, "Child psychiatry and the study of mental deficiency" (1941), p. 225; *Child Psychiatry* (1948), p. 66-70.
[543] Kanner, *Child Psychiatry* (1948), p. 67; idem, "Feeblemindedness: absolute, relative, and apparent" (1948), p. 388; "The emotional quandaries of exceptional children" (1952), p. 28.
[544] Kanner, "Emotional disturbances simulating mental retardation" (1957), p. 65.
[545] Kanner, *Child Psychiatry* (1948), p. 717.
[546] Kanner, "Autistic disturbances of affective contact" (1943), p. 247.
[547] Kanner, "Emotional interference with intellectual functioning" (1952), pp. 703-4.

functioning, into neatly separated departments, such as 'emotion' and 'intelligence' or 'body' and 'mind'.

Kanner formulated the departmentalization problem most clearly in his paper *Emotional interference with intellectual functioning* (1952). This paper also shows that he recognized this more general problem in the experience that many autistic children scored low on intelligence tests, in spite of good intellectual prospects.

On a Sunday morning, around the time Kanner published his first paper on autism, a friend called him on the telephone, and invited him to come see an unusual child that was visiting her house. When Kanner arrived, he was led to four-year-old Jay, who paid no attention to his greeting and did not verbally respond to anything he said. The boy was reading aloud from a copy of the National Geographic Magazine without, however, understanding the meaning of the words. Jay seemed oblivious to others, until they tried to interfere, which "caused marked displeasure ranging from impatient dodges to full-fledged temper tantrums".[548]

Kanner convinced Jay's father to bring his son to his clinic at a later time. Like all children brought in for diagnosis, Jay was subjected to several intelligence tests, and "his psychometric rating was extremely low, both on the Binet-Simon Scale and on the Vineland Social Maturity Test".[549] He could therefore easily have been diagnosed with intellectual disability, but Kanner held off on such a diagnosis.

In the following years, Jay and his mother came regularly to the clinic, and six years later his intelligence seemed much improved, as he scored high on the same Binet test.

Experiences such as this posed the question how it can be that a child who turns out to have good intellectual prospects, may initially perform poorly on intelligence tests. Kanner's explanation led him to the departmentalization problem. He argued that Jay's initially low scores were due not to a poor intellectual endowment, but to an emotional disability. This suggested that intelligence was not an isolated factor but interacted with the emotional factor. A

[548] Kanner, "Emotional interference with intellectual functioning" (1952), p. 701; idem, "Emotional disturbances simulating mental retardation" (1957), p. 64.
[549] Kanner, "Emotional interference with intellectual functioning" (1952), p. 702.

child can look intellectually impaired while it is really emotionally impaired. Kanner clearly believed that this was the case in (some) autistic children:

> It is typical of [Jay's] illness, which I have named early infantile autism, that the disability to form affective ties and the resultant lack of responsiveness shut off the avenues of communication which are needed for psychometric evaluation.[550]

All in all, children such as Jay and Donald made Kanner wonder how it can be that some children have difficulty with emotionally reacting to their environment in a way that fits the occasion, and had this difficulty to such an extent that it interfered with their intelligence.

4.3. Kanner's concepts

4.3.1 The concept of emotional reactivity

In the 1930's, the first consistent attempts were made to study children with emotional problems.[551] Until he met George Frankl in 1938, the main concept Kanner had at his disposal to conceptualize the emotional problems of children was 'emotional reactivity'.

Kanner first used the term 'emotional reactivity' in 1934, contemplating what would help children "to acquire a more appropriate mode of emotional reactivity".[552] He gave the following example: throwing a pitcher of cold water on a child with a breath holding spell may end the spell, but will not cure it. In such cases, he argued, the underlying emotional difficulties of the child should be remedied. A year later, he gave another example:

> If we think of so relatively simple a situation as that of a child being brought for a physical check-up, we know that different children behave differently. They have different attitudes towards the examination and the examiner.

[550] Ibid. p. 702.
[551] Kanner, "Emotionally disturbed children: a historical review" (1962), p. 100.
[552] Kanner, "Work with psychobiological children's personality difficulties" (1934), p. 411.

> […] Philip C., an intelligent 5-year-old was brought for a check-up to the Harriet Lane Home. He played cheerfully in the waiting room. When his turn came and he was approached by the physician, he suddenly burst forth with a vehement tantrum, in which fright rather than anger was the dominant note. [553]

Philip's reaction had to do with this unique history: he had had a tonsillectomy three months earlier and being in a similar situation now he was afraid to experience the same discomfort again. To recognize this, Kanner had to consider both environmental influences (the situation) *and* signs displayed by the child in reaction to that situation (the emotion).[554]

Kanner taught paediatricians that in diagnosing children they should take their emotional reactions *as a whole* into account: they should describe both "how the child reacts emotionally" and what "environmental constellation" triggered it.[555] His point was that emotional reactions are determined both by the personality of the child and by the environment to which the child reacts.

That is why, in conceptualizing emotions, the term 'reactions' was essential to Kanner. He defined emotions as "acts of adjustment" that are *reactions* "to various types of life situations".[556] Kanner borrowed the term 'reactions' from Adolf Meyer, who defined reactions as "mechanisms" that are formed through growth, chance or practice and that once established act as proclivities to respond in a certain way to a "set of circumstances or developments".[557]

Kanner, then, stressed the importance of emotions for any child and believed that among all the mental functions of a child, emotions are particularly intertwined with the person as a whole and his total situation.[558] He wrote that "[e]motional reactions are perhaps better suited than any other form of human functioning to serve as a demonstration of psychobiological and sociobiologic

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[553] Kanner, *Child psychiatry* (1948), p. 115.
[554] Kanner, *Child psychiatry* (1935, p. 65.
[555] Kanner, "Psychopathological problems of childhood" (1935), p. 591; see also Child psychiatry (1935), p. 16
[556] Kanner, "Psychopathology of childhood: basic considerations " (1944), p. 5.
[557] Johns Hopkins Medicine, Nursing, and Public Health, Alan Mason Chesney Medical Archives, Series XII Scientific notes and records: Baltimore, Unit XII/1: Working Notes, Folder 578: Reaction & Responsiveness
[558] Kanner, *Child psychiatry* (1948), p. 79.

integration".[559] In his view, emotion-words such as 'fear' or 'joy' do not denote natural kinds, but are "snapshots from the linguistic camera" that give one only a limited impression of the reaction as a whole; they are "brief designations of certain broad constellations involving a situation, a person's response to it, and his more or less conventionalized manifestation of the response".[560] He emphasized that none of these aspects can be studied in isolation.

In the first edition of his textbook Kanner had already devoted a separate chapter to "the emotional factor".[561] Here he emphasized that emotions such as love, hate, fear, anger and disappointment were as important for child psychiatrists to take into account as the intellectual endowment of children.[562] Indeed, Kanner maintained that a normal development "depends to a large extent on the establishment of sound personal relationships" and learning "how to get along with people".[563]

Three years before he met Donald, Kanner already reported "noticeable individual variations of emotional responsiveness" between children.[564] He described a spectrum of emotions, ranging from adequate to inadequate reactions, depending on their congruence with the situation. Least inadequate and most common were "emotional disorders", namely jealousy, temper tantrums and fear.[565] More inadequate and less common were "disturbances of emotional adaptation to other people", such as bullying, extreme timidity, proneness to crying, stubbornness and, significantly, "a tendency to withdraw as much as possible from contact".[566] Most inadequate and rare were the "wholly incongruous emotional responses" of children with schizophrenia or intellectual disability. For example, such children might burst out in laughter for no reason, become furious out of the blue or respond indifferently to the death of a relative.

For Kanner, all such inadequate emotional reactions were indications that something was off with the interaction between the child and its environment. He believed that in some cases, their emotional reactions had to do with

[559] Ibid., p. 79.
[560] Ibid., p. 75.
[561] Child psychiatry (1935)., pp. 63-72.
[562] Ibid., p. 16.
[563] Kanner, "Types of Maladjustment in Children" (1936), p. 441.
[564] Kanner, Child psychiatry (1935), p. 71.
[565] Kanner, Ibid., p. 275-293.
[566] Kanner, "Types of Maladjustment in Children" (1936), p. 441.

their personality.[567] In his view, children with different life experiences and constitutions differ markedly in their emotional reaction to the same situation.[568] Another source of emotional variation was the situation itself. For children, the most important of these situations were home, school and neighbourhood and it often happens that they reacted differently in one situation (e.g. at home) than in another (e.g. at school).[569] Hence, Kanner would ask not only how the child reacted emotionally, but also to what situation it was a reaction. In so doing, Kanner focussed on the child's interpersonal relationships.[570]

4.3.2 The concept of affective contact

As is well known, Kanner described the condition of Donald and the other children as "disturbances of affective contact". This clearly indicates that in order to conceptualize the difficulties these children had with emotionally adapting to their environment, Kanner turned to the concept of 'affective contact'. In chapter 1, we have seen that he borrowed this term from George Frankl. I will now show how he used that concept and why he needed it.

Kanner chose to put the term 'affective contact' in the title of his first and best-known paper. The paper was published in 1943, but Kanner had already decided to use this phrase in the title in April 1941, when he presented a draft of his paper to the staff of the *Henry Phipps Psychiatric Clinic*. On that occasion, Kanner already proposed that a "peculiar lack of any sort of affective relationship to persons" was a fundamental feature of the new syndrome.[571] Similarly, in his first public statement on the subject, in 1942, Kanner already spoke of a "disturbance of affective contact" in the sense of having "no workable relationship to people".[572] In his first paper on "disturbances of affective contact",

[567] Kanner, "Behaviour disorders in childhood" (1944), p. 776.
[568] Kanner, "Psychopathology of childhood: basic considerations " (1944), p. 7.
[569] Kanner, "Behaviour disorders in childhood" (1944).
[570] Kanner, "Psychopathological problems of childhood" (1935), p. 591.
[571] Marga Vicedo and Juan Ilerbaig, "Autism in Baltimore, 1938-1943" (2020), p. 1163.
[572] R. S., B. Lourie, L. Pacella, and Z. A. Piotrowski, "Studies on the prognosis in schizophrenic-like psychoses in children" (1943), p. 551.

Kanner used the term 'affective contact' four times outside of that title phrase. Each time he referred to the children's "inability to make any affective contact".[573]

The term *contact* is imperative here: Kanner did not mean to say that these children have no emotions at all, but rather that these children have an inability to form emotional connections with other people. The emotions were there but they did not form a basis for good interpersonal contact, as they did not fit the situation in which they occurred. These children had emotional reactions, but they were different than expected in that situation.

Kanner often opposed affective contact to contact with objects. Thus, he proposed that the 11 children he described in his first article were "impervious to people, with whom for a long time they do not have any kind of direct affective contact" but were "able to establish and maintain an excellent, purposeful, and 'intelligent' relation to objects".[574] Similarly, looking back in the 1970's, Kanner emphasized that children like Donald were "remote from affective and communicative contact" but did develop "a remarkable and not unskilful relationship to the inanimate environment".[575] This contrast makes clear that Kanner did not mean to say that these children did not interact with the world at all, but rather that they had only developed "a specific kind of contact with the external world", namely a form of contact that focussed on inanimate objects, while they shut themselves of only from "the human portion of the external world".[576]

As we have seen, the framing of his first paper on Donald and the other children makes clear that Kanner believed that their inability to form emotional connections to other people was a problem, not only in itself, but also because it interfered with these children's intellectual performance.

It is significant that the few times Kanner used the term 'affective contact' after his fist paper, he did so in papers on the relation between intelligence

[573] Leo Kanner and Leon Eisenberg. " Childhood problems in relation to the family: summary of a seminar" (1957), p. 162.
[574] Kanner, "Autistic disturbances of affective contact" (1943) ", p. 249.
[575] Kanner, "The birth of early infantile autism" (1973), p. 94. In contrast to Bleuler's concept of autism, see the historical section below.
[576] Kanner, "Infantile autism and the schizophrenias" (1965), p. 412.

and emotion.[577] The first time was eight years later, when he wrote about an autistic boy who initially scored extremely low on intelligence tests, but later scored high: Kanner remarked that he "responded more to the intelligence tests" as his "affective contact […] with the therapist increased".[578] The second time was another five years later, when he wrote that "there are "degrees not only of the intellectual potential but also of the ability to establish affective contacts".[579] It seems that Kanner considered affective contact the emotional equivalent of intellectual endowment.

I believe, therefore, that Kanner had a specific reason to adapt Frankl's concept of 'affective contact': it explained how children with good intellectual potential could have a poor intellectual performance and helped him understand how this emotional problem can be an innate disorder or disability in itself. Kanner needed to understand why some children have contact problems without the presence of other symptoms and without the presence of a known disorder that could explain it. Kanner's proposal was, simply put, that children such as Donald were born with a severely limited ability to form emotional connections to other people, as other children are born with severely limited intellectual abilities.

4.4. Kanner's theory of early infantile autism

In 1941, Kanner developed the plan to write a paper on Donald and children with similar symptoms, in order to communicate his findings to his colleagues.[580] Being asked, in November, to co-edit an issue of *The Nervous Child*, Kanner mentioned that he had some materials he was eager to develop, but which he was holding for *The Nervous Child*.[581] Because their condition was unlike anything he had seen before, he suggested to write a longer paper that

[577] Another context in which Kanner later used the term was childhood schizophrenia, which in his view "share[s] with early infantile autism the loss of affective contact". Cf. Kanner and Leonard I. Lesser, "early infantile autism" (1958), p. 728.
[578] Kanner, "Emotional interference with intellectual functioning" (1952), p. 702.
[579] Kanner, "Emotional disturbances simulating mental retardation" [1957], p. 65.
[580] Kanner, "Early infantile autism revisited" (1968), p. 18.
[581] Leo Kanner papers, Archives Box 100695, folder 24, American Psychiatric association Foundation, Melvin Sabshin, M.D., Library & Archives: Letter from Leo Kanner to Ernst Harms, dated November 18, 1941.

would include detailed case descriptions.[582] Around March 1943, Kanner finished the projected paper, and gave it the title *Autistic disturbances of affective contact*.

In the paper, Kanner presented the condition of Donald and 10 other children as a new syndrome that had not been described before. He described it as an *autistic* disturbance, involving an extreme degree of *autism*. He defined autism as: "an innate inability to form affective contact with people in the ordinary way to which the species is biologically disposed".[583] From archive materials we now know that Kanner already used the adjective 'autistic' in April 1941 and continued doing so until he published his paper in 1943.[584] A year later, he decided on the term early infantile autism.[585]

Looking back, Kanner was clear about his reasons for choosing the terms 'autistic' and 'autism'.

He chose *a* term because was afraid that otherwise autism would be lumped together with other conditions.[586] Far from wanting to introduce another "rigid disease entity" into the world, Kanner introduced a new term so as to prevent the new category from being lumped in with the catch-all abstraction of existing disease categories.[587] Most important to Kanner was not the precise diagnostic allocation of early infantile autism, but that it would be "studied per se and not dumped in a welter of a supposedly uniform disease entity".[588] Simply lumping autism together with a known disorder would do just that.

To appreciate how important this was to Kanner, it is important to know that in presenting autism as a disease entity, he departed from Adolf Meyer's approach. Instead of disorders, Meyer formulated "reaction types": groupings of similar reactions of a person to its environment, which occurs in a variety of

[582] Leo Kanner papers, Archives Box 100695, folder 24, American Psychiatric association Foundation, Melvin Sabshin, M.D., Library & Archives: Letter from Leo Kanner to Ernst Harms, dated January 5, 1943.
[583] Leo Kanner, "Co-editor's introduction" (1943).
[584] Marga Vicedo and Juan Ilerbaig, "Autism in Baltimore, 1938-1943" (2021), p. 1163.
[585] Kanner, "Autistic disturbances of affective contact" (1943), p. 248; idem, "Early infantile autism" (1944.)
[586] Kanner, "Infantile autism and the schizophrenias" (1965), p. 413.
[587] Kanner, "Work with psychobiological children (1934)", p. 411.
[588] Kanner, "Schizophrenia as a concept" (1960), p. 51.

situations.[589] Kanner had endorsed his approach to classification in the first edition of his textbook:

> Adolf Meyer, justly dissatisfied with a psychiatric classification based on the rigid nosological concept of "disease entities" prefers to deal with that with which one is confronted in psychopathology as "frequently recurring combinations of facts, which sometimes occur in pure culture and sometimes in combinations". He does not term them "disease entities" in the sense of "disease" of traditional medicine but more modestly, "reaction types" […].[590]

Progress in psychiatric diagnosis was made, in Kanner's view, by moving "away from sweeping, all-inclusive generalizations", offering in their stead "compact behavioural patterns which could be observed, described, and ameliorated in terms of their unduplicated uniqueness".[591] In positing a distinct disorder, Kanner went against the grain, so important was it for him to prevent autism from being lumped together with other disorders.

Kanner chose *the* term 'autism' to denote the incongruous emotional reactions of these children towards other people. They made him think of the "withdrawal from the external world" in severe cases of schizophrenia, which Eugen Bleuler had called autism.[592]

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[589] On this idea, see Adolf Meyer, "Fundamental conceptions of Dementia Praecox" [1906], p. 433.
[590] Kanner, *Child Psychiatry* (1935), p. 40. He still endorsed it in the second (1948) edition: "Meyer was dissatisfied with Kraepelin's rigid nosology. He objected to the "disease" concept of pathological behaviour. He thought of mental illness as an individual's specific reaction to his specific life situation. There is no unlimited variety of reaction; a number of similar patterns can be discerned. These are patterns of performance […]. Efforts are now under way to turn from symptom diagnosis to formulations which would indicate both the type of reaction and the motivating factors" (p. 206-7).
[591] Kanner, "The children haven't read those books: reflections on differential diagnosis" (1969), p. 3.
[592] Eugen Bleuler, "Autistic thinking" (1951), p. 419. Translation of Eugen Bleuler, "Das autistische Denken" (1912), p. 16: "Ohne einen deutlichen Grad van Abwendung vond der Außenwelt möchte ich das Spiel der nämlichen Mechanismen nicht Autismus nennen." Quoted in Kanner, "Infantile autism and the schizophrenias" (1965), p. 412 and in "The Birth of early infantile autism" (1973), p. 94. Kanner quoted the translation of this passage to stress that for Bleuler withdrawal from reality set pathological *autism* apart from normal *autistic thinking*.
Kanner had already seen this symptom in 1934, when Herbert was brought to his clinic, a twelve-year old boy diagnosed with schizophrenia; he was "inaccessible" and "avoided companions". Cf. Kanner, "Mental disturbances in adolescents" (1941), p. 520; idem, "Round Table Discussion: Psychiatric Problems of Adolescence" (1948), p. 74

In the previous chapter we have seen that Bleuler's concept of autism had two aspects: withdrawal from reality and non-realistic thinking. In the 1940's, Bleuler's two-tier idea of 'autism' was well-known in psychiatry, also in the USA, but it was not popular in Kanner's circle. Adolf Meyer rarely used the term 'autism', and when he did, he only referred to the second tier of Bleuler's conception: the idea of non-realistic thinking, which includes non-pathological forms of imagination, such as daydreaming and fantasy and does not need to be symptom of a disorder.[593] I don't think Meyer ever substantially discussed 'autism' as a symptom of dementia praecox or Bleuler's idea of withdrawal from reality.[594]

In contrast, Kanner acknowledged both tiers of Bleuler's conception of 'autism' prior to developing his own conception of autism. In his first psychiatric paper, from 1931, actually at the very first page he ever published in psychiatry, Kanner already wrote about "autistic schizophrenic delusions removed from the need of any checking consideration of actual possibilities".[595] He was aware of the other aspect as well: six years later he wrote that the "the outstanding phenomena" of schizophrenia are "withdrawal from the reality of life and autistic fancy-born thinking" – Bleuler's two tiers.[596]

Kanner was well aware that when Bleuler introduced these two ideas he was talking about adults, or at least adolescents, not about young children.[597]

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[593] In the inaugural Salmon Lecture, which Meyer delivered in April 1932, he distinguished between "autistic fancy and adaptation to reality", a distinction clearly resembling Eugen Bleuler's distinction between autistic and realistic thinking. Meyer, *Psychobiology: a science of man* [1932], p. 88. Indeed, in his first-year course on psychobiology, he asked students: "How do you bridge over the gaps between autistic tendencies of fancy and the adaptation to reality)", referring to Bleuler's lecture on autistic thinking. Cf. Adolf Meyer, "Outline of first year course" [1938], p. 267. Bleuler gave this lecture at Meyer's invitation at the opening of the Henry Phipps Psychiatric Clinic in 1913.
In his second Salmond lecture, Meyer he tied the idea of autistic fancy to his central concept of symbolization and mentation (see next chapter): he described autistic thinking, in Bleuler's sense, as one form of mentation that uses symbolization, namely the form that sees possibilities that are supplementary to current reality.

[594] He did mention it in passing, however, in Adolf Meyer, "Psychosis" [1902], pp. 289; idem, "The evolution of the dementia praecox concept" [1928], p. 484.

[595] Kanner, "Judging emotions from facial expressions" (1931), p. 1.

[596] Kanner, "Modern trends in psychiatry" (1937), p. 481.

[597] Kanner, "Child psychiatry: retrospect and prospect" (1960), p. 16; idem, "Infantile autism and the schizophrenias" (1965), p. 415. Elsewhere, Meyer wrote about a category of patients who developed 'shut-in' personality and indulged in "vague autistic fancy, daydreaming, withdrawal from reality". Adolf Meyer, "Leading concepts of psychobiology (egasiology) and of psychiatry (ergaiatry)" (1951), p. 303.

That is why he added the adjectives 'early' and 'infantile'. Kanner maintained that in general, childhood behaviour disorders are defined by two factors: the age of onset and the complaint of which they are the nucleus.[598] The two adjectives reflect this view: 'early' specified the age of onset as being in the first years of life and the term 'autism' referred to aloneness of these children.

The idea of aloneness only partly corresponds to Bleuler's first tier (the idea of withdrawal): Kanner stressed that the aloneness he was talking about "is not, as in schizophrenic children or adults, a departure from an initially present relationship; it is not a 'withdrawal' from formerly existing participation".[599] In other words, the end state was the same but the process was different. Kanner later explicated that Bleuler's second tier did not quite apply either, as children with early infantile autism "develop a remarkable and not unskilful relationship to the inanimate environment".[600] He seems to have thought that their thinking is guided by the non-social aspects of reality just fine and only fails to take into account *social* demands and constraints.

Kanner, then, did not simply take over Bleuler's concept, even though he used his term. That Kanner borrowed this term from another diagnostic frame, that of schizophrenia, does not mean that he thought of early infantile autism as the same as schizophrenia. He did not think that the term childhood schizophrenia applied well to the children he was studying, due to the early onset and the absence of such positive symptoms as delusions and hallucinations.

It was not until 1949, when he was pressed to assign the new syndrome to a known diagnostic category, that Kanner conceded to describe it as an early form of schizophrenia: "[T]here has been a storm of vigorous protest, to the point that I have decided not to object if this group of children is listed among the schizophrenias."[601] Kanner used the plural term schizophrenias to highlight that if early infantile autism is described as schizophrenic, it must be seen as an early form among a range of different forms of schizophrenia in children and not be reduced to the form with later onset that had become known as childhood

[598] Kanner, "Behaviour disorders in childhood" (1944), p. 761.
[599] Kanner, "Autistic disturbances of affective contact" (1943), p. 242.
[600] Kanner, "Infantile autism and the schizophrenias" (1965), p. 412.
[601] Kanner, "Schizophrenia as a concept" (1960), p. 51.

schizophrenia[602]. Kanner came to this conclusion at a time when there was a revival of interest in childhood schizophrenia.[603]

Clearly, describing autism as the earliest form of childhood schizophrenia was a pragmatic concession to popular demand. His own belief rather seems to have been that early infantile autism was an *infantile psychosis* similar to but not identical with childhood schizophrenia. He first expressed this idea in 1949, when he wrote: "In 1943 […] I published 11 cases of infantile psychosis noticed as early as in the first two years of life".[604] Kanner seems to have included autism in a more general category of "psychotic conditions of childhood", alongside childhood schizophrenia, manic depression, cerebral disorders and metabolic disorders.[605] This impression is strengthened by the fact that in one of his last publications, Kanner described 15 cases of early infantile autism, as part of an evaluation of a group of 34 "psychotic children" and expressed the hope to contribute to the "diagnostic differentiation of psychotic disturbances in childhood".[606]

Kanner believed early infantile autism to be very rare. He diagnosed only 8 children a year with early infantile autism, despite referrals from other clinics.[607] Once word got out that Kanner had some experience with children like Donald, children with similar complaints were referred to him by other institutions, from throughout the United States and even from abroad. In 1946, the group had already grown to 23 children,[608] in 1948 to 50 children[609] and in 1956 to 120 children.[610] At that time, Kanner and his colleagues had followed 50 of these children after their diagnosis for an average period of 8 years.[611] The names and diagnoses of all these children were cross-indexed so as to easily

[602] Kanner, "Schizophrenia as a concept" (1960, p. 50.
[603] Kanner, "The thirty-third Maudsley lecture: Trends in child-psychiatry" (1959).
[604] Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 416. See also his "The conception of wholes and parts in early infantile autism" (1951), p. 23.
[605] Kanner, "Childhood psychosis: a historical overview" (1971), p. 19; See also the abstract of Leo Kanner, Alejandro Rodriguez, and Barbara Ashenden, "How far can autistic children go in matters of social adaptation?" (1972), p. 9.
[606] Kanner, "Evaluations and follow-up of 34 psychotic children" (1973), p. 226.
[607] Kanner, "The specificity of Early infantile autism" (1958), p. 110.
[608] Kanner, "Irrelevant and metaphorical language in early infantile autism" (1946), p. 242.
[609] Kanner, "Problems of nosology and psychodynamics of early infantile autism" (1949), p. 416.
[610] Leo Kanner and Leon Eisenberg, "Early infantile autism, 1943-1955" (1957), p. 91.
[611] "Childhood schizophrenia: Symposium, 1955", p. 558.

locate relevant case files and in the early years, Kanner considered his clinic "a quasi ex-officio archive of all things that pertained to the syndrome".[612]

Kanner found that although each autistic child had a unique profile, they did have some characteristics in common. Each of these characteristics on their own might have been ascribed to other disorders, but Kanner believed that their combination was unique and pointed to a new syndrome that had not been reported before.[613]

4.4.1 Two fundamental features

Kanner did not think of autism, as scholars do today, as involving cognitive deficit, learned behaviour, or neurological difference. Instead, he thought of autism as an *emotional disorder*[614] involving an inability to form emotional ties. There is, however, a second definition that Kanner used, which was not based on Frankl's idea of contact disorders: he would often say that the defining features of Early infantile Autism are a desire to be alone and a desire to keep the environment the same.

The common view today appears to be that in conceptualizing early infantile autism, Kanner started out with a range of characteristics on the same footing, but somewhere between eleven and fifteen years later (the exact timing varies) narrowed them down to just two fundamental traits: (1) detachment from contact with other people or *aloneness* and (2) an anxious obsessive desire for the maintenance of *sameness*. As a recent paper puts it: "Kanner would mention aloneness and insistence on sameness in his initial paper, and in his 1954

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612 Leo Kanner, Alejandro Rodriguez and Barbara Ashenden, "How far can autistic children go in matters of social adaptation?" (1972), pp. 27-8.
613 Kanner, "Autistic disturbances of affective contact" (1943), p. 242; "Early infantile autism" (1944), p. 211; Kanner, "To what extent is early infantile autism determined by constitutional inadequacies?" (1954), p. 378.
614 By emotional disorder, Kanner did not mean what the DSM-IV later called anxiety disorders (such as panic and obsession-compulsion). He did initially see similarities between autism anxiety and compulsion. But in the end, he did not find compulsions in children with autism, and although he did find anxiety, he came to regard is as a secondary symptom of autism. In the second edition of his handbook. Kanner therefore classified autism under childhood schizophrenia' rather than under 'anxiety attacks' or 'obsessions and compulsions'.

paper, he asserted that these are *the two main* traits, saying that 'all other symptoms' could be explained through them".[615]

I think this view of the development of Kanner's thinking is mistaken. To begin with, he apparently offered the idea of two main traits already in February 1951 at a conference talk delivered at the *Institute of Living* in Hartford. Kanner is reported saying that "there are two features especially prominent in the syndrome", namely: "(1) aloneness; extreme from early age and (2) a consistent desire for the maintenance of sameness".[616] More importantly, he already focussed on these two traits in his first recorded public statement on the subject (a third trait –anxiety– was later dropped as a separate feature). He made this statement in May 1942, when he went to the 98th annual meeting of the *American Psychiatric association*.[617] On the third day, he heard a paper being read on schizophrenic-like psychoses. In response to the paper, he said:

> I have myself come upon a number of children whose difficulties very early in life gave the impression of schizophrenic-like disorder, with very marked disturbance of affective contact, anxiety, and obsessive-compulsive behaviour.[618]

Thus, in May 1942, more than a year before the journal featuring Kanner's first paper on autism was published, he already pointed to disturbances of affective contact and obsession as the two fundamental features of the children's difficulties. This shows that Kanner originally proposed three concepts: affective contact, obsession and anxiety, but soon singled out the first two.[619] He did not

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[615] Christopher Sterwald and Jeffrey Baker, "Frosted Intellectuals: How Dr. Leo Kanner Constructed the Autistic Family" (2019), p. 698. The paper they refer to is Leo Kanner, "To what extent is early infantile autism determined by constitutional inadequacies?" (1954). Kanner actually read this paper in December 1953 at the association for Research in Nervous and Mental Disease in New York. Cf. Association for Research in Nervous and Mental Disease, Genetics and the inheritance of integrated neurological and psychiatric patterns, *Proceedings of the association, December 11 and 12, 1953, New York, N.Y.* (1954).
Proceedings of the association, December 11 and 12, 1953
[616] Kanner, "A Discussion of early infantile autism" (1951).
[617] Kanner, "The American Psychiatric association" (1942).
[618] The paper and the discussion appeared in print in the January 1943 volume of the American Journal of Psychiatry: R. S., B. Lourie, L. Pacella, and Z. A. Piotrowski, "Studies on the prognosis in schizophrenic-like psychoses in children" (1943). Kanner's statement is at p. 551.
[619] Leo Kanner, "Autistic disturbances of affective contact" (1943), p. 245.

drop the idea of anxiety altogether, but rather tied it to both affective contact and obsessiveness, describing them as *states* that were anxiously protected by the child. So it happened that when his first paper on autism was published, in 1943, it contained the claim that "[a]ll of the children's activities and utterances are governed rigidly and consistently by the powerful desire for aloneness and sameness".[620]

I conclude that when in the 1950's Kanner began to emphasize these features as the two *fundamental* features of early infantile autism, he was simply making more explicit what he had thought all along: that the behaviours shown by Donald and the other children like him were best conceptualized as *a combination of two desires, namely a desire for aloneness and a desire for sameness.*

Throughout his career, Kanner used various terms to describe these features: "extreme withdrawal and excessiveness", [621] "withdrawal from contact and desire for sameness", [622] "desire for aloneness and sameness", [623] and "extreme self-isolation and obsessive insistence on the preservation of sameness".[624] These formulations placed different accents but referred to the same two features. These two features have in common that they consist of a *status*, aloneness or sameness. Further, they also have in common that they are *emotionally driven*: the achievement of these statuses makes autistic children happy and satisfied, and their disturbance makes them anxious and upset. Finally, in Kanner's view, the two features both *interfered* with learning, creating the illusion of intellectual disability.[625]

It remains somewhat unclear how Kanner related 'affective contact' to these two desires. It seems to me that it corresponds to the first desire, the desire to be alone. There is a difference between an inability and a desire, however. An inability points to a lack, to something that the child is not able to do, whereas a desire points to a want, what the child prefers to do (but may or may not be able to). Further, it is unclear how Kanner related the second feature, an obsessive desire for sameness, to the first and to the inability to form

[620] Kanner, "Autistic disturbances of affective contact" (1943) ", p. 249.
[621] Kanner, "Feeblemindedness: absolute, relative, and apparent" (1948), p. 391.
[622] Kanner, "The conception of wholes and parts in early infantile autism" (1951), p. 23.
[623] Kanner, "To what extent is early infantile autism determined by constitution-al inadequacies?" (1954), p. 378.
[624] Kanner, "Early infantile autism, 1943-1955" (1956), p. 93.
[625] Kanner, *Child psychiatry* (1948), p. 96.

affective contact. It does not seem self-evident to me that a child that cannot form affective ties with other people tries to control its environment so as to maintain sameness. Kanner offered neither a description nor an explanation of their precise relationship.

I will now elaborate on the two primary features of aloneness and sameness, respectively.

4.4.2 A desire for aloneness

In his first paper on autistic disturbances, Kanner reported that Donald "was happiest when left alone, almost never cried to go with his mother, did not seem to notice his father's homecomings, and was indifferent to visiting relatives".[626] This is how Donald's father described this aloneness in his letter to Kanner:

> He seems almost to draw into his shell and live within himself. We once secured a most attractive little boy of the same age from an orphanage and brought him home to spend the summer with Donald, but Donald has never asked him a question nor answered a question and has never romped with him in play. He seldom comes to anyone when called but has to be picked up and carried or led wherever he ought to go.[627]

Kanner described such aloneness as a *status* that is anxiously protected by the child, arguing that their "self-isolation" is "not so much a process or event as it is a status, which the child strives anxiously to maintain".[628] He believed that the protection of this status was motivated by a strong *emotion,* in particular a desire for aloneness. He seemed to suggest that this desire in autistic children, took the place of the instinct to form affective ties in other children.

Kanner proposed that children such as Donald would see the external world as a continuum ranging from still and therefore non-interfering objects to extremely interfering vacuum cleaners – with interfering people in the middle. This struck him as a very atypical development of relationships to the

[626] Kanner, "Autistic disturbances of affective contact" (1943), p. 218.
[627] Ibid.
[628] Kanner, "To what extent is early infantile autism determined by constitutional inadequacies?" (1954), p. 378-9; idem, "Autistic disturbances of affective contact" (1943), pp. 242, 245-7.

environment. Autistic children did not divide their environment up into, on the one hand, social beings who think, feel and communicate and, on the other hand, non-social beings who are not aware of themselves and others. Instead, they ordered beings in the environment according to the threat they posed to their aloneness. This is why autistic children only had a good relationship to those objects "that do not change their appearance and position".[629] Objects that do move or do make noise, such as tricycles and vacuum cleaners, were even more of a threat to their aloneness than people. Food, upon entering the body, could also feel as an intrusion.

Kanner typically used the term 'aloneness' to refer to these ideas. In 1946, for example, he referred to "excessive aloneness" as one of the two outstanding features of the syndrome.[630] Similarly, in 1957, Kanner and his colleague Eisenberg said: "There are two outstanding features to this syndrome. The first of these we refer to as 'aloneness'."[631] Finally, in his 1971 follow up on the original 11 children, Kanner pointed to "aloneness" as one of the two "cardinal characteristics" of autism.

4.4.3 A desire for sameness

Like aloneness, Kanner described sameness as a status, the achievement of which made autistic children happy. They actively tried to maintain this status, protecting it from intrusions:

> [Paul] was always vivaciously occupied with something and seemed to be highly satisfied, unless someone made a persistent attempt to interfere with his self-chosen actions. Then he first tried impatiently to get out of the way and, when this met with no success, screamed and kicked in a full-fledged tantrum. […] He ran around in circles emitting phrases in an ecstatic-like fashion. He took a small blanket and kept shaking it, delightedly shouting, "Ee! Ee!" He could continue in this manner for a long time and showed great irritation when he was interfered with. All these and many

[629] Kanner, "Autistic disturbances of affective contact" (1943), p. 246.
[630] Kanner, "Irrelevant and metaphorical language in early infantile autism" (1946), p. 242.
[631] Leo Kanner and Leon Eisenberg, "Childhood problems in relation to the family: summary of a seminar" (1957), p. 155.

> other things were not only repetitions but recurred day after day with almost photographic sameness.[632]

Kanner reported that several of the children were greatly disturbed upon the sight of objects that were broken or incomplete and did not tolerate changes in the arrangement of furniture or toys. [633] The clearest example is John:

> He was extremely upset upon seeing anything broken or incomplete. He noticed two dolls to which he had paid no attention before. He saw that one of them had no hat and became very much agitated, wandering about the room to look for the hat. When the hat was retrieved from another room, he instantly lost all interest in the dolls.[634]
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> Changes of routine, of furniture arrangement, of a pattern, of the order in which everyday acts are carried out can drive him to despair. When John's parents were ready to move to a new home, the child was frantic when he saw the moving men roll up the rug in his room. He was acutely upset until the moment when in the new home he saw his furniture arranged in the same manner as before. He looked pleased, all anxiety was suddenly gone, and he went around affectionately patting each piece.[635]

In other autistic children, Kanner found similar resistance to changes. Any change in shape, sequence or spatial arrangement was met with "violent outbursts of rage". In behavioural terms, he described the avoidance of changes in the environment as "maintenance of sameness" or "insistence on sameness".[636] Kanner found that even though autistic children did sometimes make small changes themselves, they forced the people around them to keep their external environment exactly the same – when they were with other people such maintenance of sameness was their main activity, not the communication of feelings and ideas.[637]

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[632] Kanner, "Autistic disturbances of affective contact" (1943), p. 227.
[633] Ibid., p. 245.
[634] Ibid., p. 238.
[635] Kanner, "Early infantile autism" (1944), p. 215.
[636] Kanner, "Autistic disturbances of affective contact" (1943) ", p. 245.
[637] Kanner, "The conception of wholes and parts in early infantile autism" (1951), p. 23.

Kanner clearly conceptualized such behaviour in terms of obsession. He used the term 'obsessive' twice as often as 'sameness' in *Autistic disturbances of affective contact* and we have seen that in his first recorded public statement on autism he still spoke of obsessive-compulsive behaviour and not yet of sameness.[638]

In Kanner's experience, obsessive-compulsive behaviour was rare before puberty, and when it did occur it was not self-directed: children typically involve others in their obsessions, forcing them to comply with his obsessive needs.[639] In contrast, adults' obsessions are directed towards their own actions. In the context of obsessive-compulsive disorder, Kanner defined obsession as "ideas which keep intruding themselves irresistibly and distressingly upon a person's consciousness, interrupting the orderly sequence of thought and action".[640] In the case of autism, Kanner did not find such distress, nor the feeling that obsessive ideas are intrusions alien to the self. To the contrary, he believed that keeping their environment the same made autistic children happy and even gave them "a gratifying sense of undisputed power and control" over their environment and their body.[641] What Kanner did find was that their obsessive ideas interfered with the spontaneity of their actions. He noted "a marked

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638 Kanner, "The American Psychiatric association" (1942).
639 Kanner, "Children's obsessions" (1946), p. 340-1.
640 Kanner, "Psychopathology of childhood: basic considerations " (1936), p. 28; idem, "Children's obsessions" (1946), p. 340.
641 Kanner, "Autistic disturbances of affective contact" (1943), p. 246; idem, "Early infantile autism" (1944), p. 216. Exercising this power made the children not just happy but ecstatic. In these papers, Kanner even called this gratification 'masturbatory'. In 1943, Kanner wrote: "These actions and the accompanying ecstatic fervour strongly indicate the presence of *masturbatory orgastic gratification*" but in 1944 he dropped the term 'orgastic'. Compare Sigmund Freud's claim that "the sexual aim of the infantile impulse consists in the production of gratification", which Kanner cited in "Infantile sexuality" (1939), p. 588. Kanner had (re)read Freud's *Three Contributions to the Theory of Sex* in 1925. Cf. American Psychiatric association Foundation, Melvin Sabshin, M.D., Library & Archives, Leo Kanner, M.D. papers, Archives Box 100695, folder 7: Autobiography (2) typed copy, pp. 290-1.
I believe Kanner meant this in the broad sense of deriving pleasure from oneself and one's own body, rather than from relationships with other people – i.e. a kind of emotional turning away from others. Compare Kanner's discussion of Erich Benjamin's views of the age of resistance, in "Some Pediatric Problems of Behavior in Infancy and Early Childhood" (1938), p. 427: "The basic disturbance lies in the child's failure of adaptation to the environment, due to insecurity and anxiety. His difficulty of adjusting to the task of growing into relationships with other people and the acceptance of values determined by them […] leaves three possible avenues open to the child: [including…] introversive turning away from reality to find consolation in thumb-sucking, masturbation, and rhythmic body movements". Benjamin considered such emotional resistance a normal inborn tendency, which became pathological only when it persisted much longer than expected.

limitation in the variety of spontaneous activities" and described their actions as ritualistic, mechanical, repetitive, and monotonous.[642]

The behavioural expression 'maintenance of sameness' has been taken over by later researchers, but often without reference to the emotions driving this behaviour in Kanner's view: *anxiety* in the absence of sameness and *security* in its presence.[643] He described the function of obsessive-compulsive behaviour as avoiding insecurity through securing a sameness of performance and I believe he applied the same idea of "security-through-sameness" to children with autism.[644] Typical children would find security in the presence and care of their parents, but without affective ties to their parents, autistic children found security in sameness.

Kanner did not see such obsessiveness as altogether negative. He acknowledged that "[a] certain amount of obsessiveness can indeed be an asset for an artisan, a scientist or an executive" and found that some of the children on growing up learned to use their obsessiveness to their advantage.[645] For example, he reported that Herbert "learned to perform the functions of a kind, helpful, competent orderly, using his routine-consciousness in a goal-directed, dependable manner".[646]

4.4.4 Secondary features

Eugen Bleuler, in his book on schizophrenia, described as *primary* those symptoms that directly resulted from the disease process, and as *secondary* those symptoms that resulted from the way the ill psyche reacted to internal and external stimuli.[647] In the same vein, Kanner distinguished between primary and secondary features of early infantile autism.[648] We have seen what he considered to be the two primary features: a desire for aloneness and a desire for

[642] Kanner, "Autistic disturbances of affective contact" (1943), p. 245.
[643] Kanner, "The conception of wholes and parts in early infantile autism" (1951), p. 26.
[644] Kanner, "Children's obsessions" (1946), p. 341.
[645] Kanner, "Causes and results of parental perfectionism" (1957), p. 381.
[646] Kanner, "Follow-up study of eleven autistic children originally reported in 1943" (1971), p. 143.
[647] Eugen Bleuler, *Dementia praecox or the group of schizophrenias* (1911), p. 284-5.
[648] Leon Eisenberg and Leo Kanner, "Childhood schizophrenia: Symposium, 1955: 6. Early infantile autism, 1943–55" (1956), p. 557.

sameness. Now, in addition Kanner discerned "a number of secondary features" that he considered "derivatives of these".[649]

I will divide these secondary features in three groups, depending on whether they are incongruent to the situation in (1) quality, (2) timing, or (3) grounding.[650] To my mind, this best brings out Kanner's ideas, although he did not himself apply his distinction to the secondary features of autism. I will go beyond Kanner in that sense, and I will use Donald's case, which he described most elaborately, as illustration.

First, consider behaviours that were incongruent with the situation in content. Kanner reported that Donald "was never angry at the interfering person" but "shoved away the hand that was in his way or the foot that stepped on one of his blocks".[651] In other words, he did not attend to persons as a whole, only to isolated body parts. "When a hand was held out before him so that he could not possibly ignore it, he played with it briefly as if it were a detached object."[652] Sometimes Donald's speech did not match the environment in quality, because he failed to shift perspective. For example, when Donald wanted his mother to pull his shoe off, he would repeat what she used to say to him, "Pull off your shoe", without changing the perspective. Similarly, he would refer to others as 'I', using "the personal pronouns for the persons he was quoting, even imitating the intonation".[653]

Second, Kanner's description of secondary features of autism included behaviour that was incongruent with the situation in timing. Most of Donald's actions "were repetitions carried out in exactly the same way in which they had been performed originally", although, in at least the eye of the beholder, the original situation was long gone.[654] For a long time Donald would say 'yes' when he wanted his father to put him up on his shoulder, because his father, trying to get him to say to say 'yes' and 'no', had once asked him, "Do you want me to put you on my shoulder?".[655]

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649 Leo Kanner and Leonard I. Lesser, "Early infantile autism" (1958), p. 716.
650 See §4.3; "Behaviour disorders in childhood" (1944), p. 772.
651 Kanner, "Autistic disturbances of affective contact" (1943), p. 220.
652 Ibid., p. 224.
653 Ibid., p. 219.
654 Ibid., p. 219.
655 Ibid., p. 220.

Third, the final group of secondary features were incongruent in grounding, lacking any grounding in the situational context. Kanner reported that most of the things Donald said during the day were "irrelevant utterances": he repeated words or phrases which seemed to have no foundation in the situation, such as "Chrysanthemum"; "Dahlia, dahlia, dahlia"; "Business"; "Trumpet vine"; "The right one is on, the left one is off"; "Through the dark clouds shining'".[656] Similarly, in responding to what another person said, he would not take into account the situation in which it was said. For example, when he picked something up that he was not allowed to and was ordered to "put that *down",* he would take this literal and put the thing on the floor.[657] Donald's interest also seemed to lack any foundation in the situation and were unchildlike. He "learned the Twenty-third Psalm and twenty-five questions and answers of the Presbyterian Catechism", was always "absorbed in some kind of silly, unrelated subject" and "attempted to make a list of the dates of publication of each issue" of Time Magazine, figuring "the number of issues in a volume and similar nonsense". [658] Kanner found that children with autism had a good memory for such seemingly irrelevant facts.

Although Kanner believed that early infantile autism was emotionally driven, he considered it to be a disorder of the whole personality, the severity of which depended on the child's maturation process and social experiences. This idea will be the focus of the next chapter.

[656] Ibid., p. 219.
[657] Ibid., p. 220.
[658] Ibid., p. 217.