

Kanner, Asperger, and Frankl: A third man at the genesis of the autism diagnosis

Autism
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Abstract

Scholars have long speculated about how Kanner and Asperger's descriptions of autistic behavior appeared just 1 year apart in America and Austria even as World War II had severed communication between the two countries. Both conspiracy and serendipity have been alleged, but a simpler explanation has now emerged. Autistic knowledge crossed the Atlantic with Georg Frankl—a previously unrecognized “man in the middle” who followed his fiancé to America. The evidence presented here fills in many blanks and suggests both Kanner and Asperger benefited from Frankl's insight. He was a guiding force for both men: unseen until now because he left very little in the way of published papers. To the end of their lives, Kanner and Asperger described their conditions as separate and distinct. Today, they are both part of the Autism Spectrum in *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). This article explains how and why Kanner and Asperger saw their descriptions as different. It makes the case that Georg Frankl helped both men see autism as we know it today and first saw the breadth of that continuum.

Keywords

Asperger, autism spectrum disorders, diagnosis, Frankl, Kanner, psychological theories of autism

The recent publication of two popular books—Silberman's *NeuroTribes* (2015) and Donovan and Zucker's (2016) *In a Different Key*—has shined fresh light on the genesis of the autism diagnosis. Most significantly, Silberman revealed that Leo Kanner hired Georg Frankl from the Vienna clinic where Asperger also worked.¹ Donovan and Zucker tracked down Donald Triplett (Kanner's first autism case study) and gained access to previously unseen records at the Johns Hopkins clinic. The questions those books raised in my mind inspired this article, and I owe a great debt to both authors. I hope they are pleased at the way this article builds on their work.

The findings presented here shed new light on Frankl's role in our understanding of autistic behavior and provide details that suggest some remarkable conclusions about him. Most importantly, Frankl was a senior faculty member in the Lazar Clinic when Asperger joined as a resident in 1932. When Frankl left Vienna in 1937, he did not bring Asperger's ideas about autistic behavior to America. As Asperger's teacher, he brought his own ideas that he later shared with Kanner. That will be detailed in the following pages.

How the autistic label came to appear in its current context—just 1 year apart in Maryland and Austria—has baffled researchers for decades. In 1943, Baltimore psychiatrist Leo Kanner published “Autistic Disturbances

of Affective Contact” in the American journal *Nervous Child*. A few months later, in 1944, Viennese pediatrician Hans Asperger published his thesis “Die ‘Autistischen Psychopathen’ im Kindesalter” in *Archiv für Psychiatrie un Nervenkrankheiten*. The English translation of Asperger's thesis is “The ‘Autistic Psychopaths’ in Childhood.”

There were similarities in their descriptions, most obviously the subjects' seeming detachment from other people. Most of the subjects had a love of ritual and routine, and some degree of obliviousness to the unspoken cues of others. Those traits are important elements of today's *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5) autism spectrum.

There were also significant differences, first being the subjects' apparent functioning. Asperger's subjects possessed clear, precise speech and good cognitive skills. Several of Kanner's subjects did not speak at all or were minimally verbal. Most had cognitive impairments.

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Asperger's thesis was initially published in German and Kanner's paper dominated the English-language conversation. In 1971, Kanner was the editor of the first autism journal—the *Journal of Autism and Childhood Schizophrenia*—and he specifically recognized Asperger when he published D. Arn Van Krevelen's paper comparing what Van Krevelen called the distinctly different diagnostic descriptions of Asperger and Kanner (Van Krevelen and Kuipers, 1962). That paper prompted psychiatrist Lorna Wing to investigate Asperger and his work some years later (1981). Uta Frith published a translation of Asperger's thesis in 1991. This translation created some misconceptions with respect to intent because she did not translate Asperger's six-page introduction and she used "autism" and "autist" throughout the translation, where Asperger only used the term "autistic" in the original German. The translation may be described as "influenced by modern knowledge." Scholars were immediately drawn to similarities and differences between Kanner's and Asperger's papers. But both doctors denied any involvement of the other in their work.

Most researchers accepted their statements. Strange coincidences do happen. Other scholars suggested that one must have appropriated the work of the other, though it wasn't clear how that might have happened. By setting the known facts in chronological order, some startling truths emerged about how Asperger and Kanner came to describe what Wing, Frith, and many other psychiatrists saw as a spectrum, even as they drew very different conclusions while separated by an ocean and a world war.

The simultaneous appearance of the term *autistic* in its present context in Austria and America wasn't a conspiracy or a coincidence. Nor was it a case of one man grabbing the other's work. Instead, it was a side effect of something altogether unexpected: a love affair.

The two stars of this story met at the University of Vienna in the late 1920s. Georg Frankl and Anni Weiss worked together under the renowned Viennese doctor Erwin Lazar. Georg was an Austrian native; a newly graduated physician with interests in pediatrics and psychiatry. Anni came from a family of wealthy German industrialists. She was a student of what we now call special education and psychology. Both were Jewish, as were a majority of Viennese medical professionals.

Their boss was a Vienna Medical School graduate who headed the hospital's new children's clinic. Dr Lazar had a diverse range of interests, including Down's syndrome (in Lazar's day this was called Mongolism), psychopathy, schizophrenia, and the challenges of children in trouble with the courts (Roazen, 1985: 102–120). Lazar's clinic became the training ground for a stream of doctors-in-training. He believed his staff should learn from the children, so he had them play with and observe them. Most children were treated on an outpatient basis, but there were 21 beds and some children stayed at the clinic

for evaluation and treatment. Michaels (1935) published an excellent contemporaneous description of the Vienna clinic.

One of the things the Vienna clinicians observed was behavior we'd now call autistic, though they did not use that name for it. Instead, they described withdrawal, fixation on objects, love of ritual and routine, and strange speech. Lazar was a student of Swiss psychiatrist Eugen Bleuler, so his staff probably discussed Bleuler's (1911) paper in which he used the term autism to describe schizophrenic detachment. And they were likely aware of other accounts, like Grunya Sukhareva's (1926) paper describing six boys with what we'd now call autistic traits (Manouilenko and Bejerot, 2015). A review of the medical literature of the early 20th century shows many similar cases, all described by European clinicians. Weiss (1935) and Frankl (1933) both published case studies and papers without using the word autistic.

The United States was slow to adopt European thinking about child psychiatry. The Austrians, Germans, and Swiss had established child clinics at the beginning of the century. After 20 years, Johns Hopkins became the first American university to establish both a child psychiatry clinic and teaching program. Dr Leo Kanner was chosen to head the clinic in 1930.

Kanner was an Austrian-born and German-educated émigré, 36 years old, smart, and ambitious. Like most of his contemporaries, Kanner was trained in medicine before the formal emergence of child psychiatry. Kanner initially developed his expertise by working at a state mental hospital in Yankton, South Dakota. He had been trained in cardiology in Berlin, but even then he had an affinity for families and children. Kanner was a gifted writer and speaker who published on a wide variety of topics. His insightful writing attracted the attention of Adolf Meyer, the Swiss-born doctor who headed up psychiatry at Johns Hopkins.

Meyer invited Kanner to Johns Hopkins on a Commonwealth child psychiatry fellowship (1930). After 2 years, Meyer appointed him a permanent part of the staff. By 1935, Kanner turned his first 400 case studies into what became the definitive text on child psychiatry in America, firmly establishing his reputation.

Meanwhile, Hitler was named Chancellor of Germany in January 1933. Within Austria, there was broad support for the Führer and his ideas, and the Jewish community saw an alarming rise in anti-Semitism. More than 60% of Vienna's doctors were Jewish, particularly the psychiatrists and psychologists. By 1934, those Jewish doctors were being denied promotions and even getting dismissed from their positions. They began to emigrate, and in most areas there was no one to take their place.

Dr Lazar died suddenly in 1932, leaving the Vienna children's clinic without a leader. The hospital leadership had recently changed too, with the 1930 appointment of

Franz Hamburger, a Nazi supporter with strong anti-Semitic views (Hamburger, 1939; Roelcke et al., 2014: 152). Hamburger replaced Lazar with Dr Valerie Bruck, an immunologist best known for her work in rickets (Bruck-Biesok et al., 1927).

With Lazar's death, 35-year-old Georg Frankl became the senior psychiatrist. Psychologists Anni Weiss, Josef Feldner, and a nun, Sister Viktorine Zak comprised his staff. There was also an internist, Dr Erwin Jekelius. Later that year, a new pediatrician joined them—Hans Asperger. He was a recent graduate of the university medical school, just 25 years old, Catholic, still in training, and a favorite of director Hamburger, who became his habilitation thesis advisor.

Asperger would learn his trade under Weiss and Frankl. His later descriptions of autistic psychopaths are very similar to some of the children Weiss described in the 1930s. Asperger's focus on personality and use of the term "autistic psychopath" was surely also informed by Lazar's (1927) book on psychopathy. Frankl would have told Asperger about language impairment and showed him his (1933) paper, "Ordering and Obeying." Asperger's later choice of the word psychopath shows that he saw the children as having a personality disorder, as did Weiss. In his own writing, Frankl explored neurobiological reasons for the observed behaviors—a prescient explanation in line with current thinking.

By 1934, Asperger was forming his own diagnostic ideas. Much later, his daughter Dr Maria Asperger Felder would cite a letter from April of that year in which her father suggests "autistic" might be a useful term to describe the personality disorder they observed in some children (Feinstein, 2010: 10–11). It's not clear if that was Asperger's own thought, or Bleuler's idea as passed on by Frankl or Weiss; or perhaps, it took shape in their weekly discussion group (Silberman, 2015: 82–109). The similarity of their patients to Bleuler's (1911) description seems obvious in hindsight, but it may not have been so clear then.

One principal difference between autism and schizophrenia was that schizophrenia generally affected previously healthy adults. The children coming to the Vienna clinic had been different from a very early age, according to their parents. Otherwise, Bleuler's description of autism matches in many respects the current definition of autism. Asperger seems to have separated autistic psychopathy out in 1934 as he did not refer to schizophrenia in his case studies.

In the midst of the clinic's activity, Anni Weiss and Georg Frankl fell in love. They kept their feelings secret. If word got out, one or both might be fired as Hamburger was looking for excuses to get rid of Jewish staff.

That fall, Weiss was abruptly let go from the clinic (Castell, 2008: 104). While no record of her dismissal survives, 1934 was when the first Jewish clinicians were fired, and women were targeted first. She was fluent in English and found a post at Columbia in New York City. Her papers arrived 1 October, and she set sail from France

2 weeks later. Unfortunately, her papers were less than perfect, and the Americans denied her entry. She had to sail back to Italy, where she spent a stressful few months getting documents sorted out. Even with a decade's experience as a psychologist in Austria, Weiss had to start over in New York. Her first American journal article appeared the following spring (1935). She became a Columbia child guidance associate, and then a child psychologist, finally getting her license to practice psychology in America.

Weiss stayed at Columbia for 3 years. During that time her family was driven from their ancestral home in Germany, and she felt increasing pressure to get Frankl out. By 1935, there were few positions for Jewish doctors in Europe. The situation was worst in Germany and deteriorating in Austria. Her German mother would have painted a very disturbing picture when she visited New York in 1936, on her way to exile in England after the Americans denied her asylum.

Frankl needed a sponsor and a job offer to come to America. Weiss found both for him at the Johns Hopkins Hospital. By that time, Kanner was working hard to help his Jewish colleagues in Europe. Kanner encouraged the state of Maryland to ease the licensing rules for Jewish clinicians from Europe, and he asked everyone he knew about jobs. All told, he would help some 200 Jewish clinicians leave Nazi Europe. Weiss was delighted to learn that Frankl would be one of them.

Back in Vienna, Dr Bruck retired from the Lazar clinic and Nazi sympathizer Hamburger, who was Asperger's mentor, named him to take her place. Frankl was more experienced than Asperger but he was a Jew. Asperger was just 28 years old and not yet finished his training, but he was Catholic and therefore promotable. As insulting as Asperger's promotion may have seemed to Frankl, the Nazi threat to his own career was probably more disturbing. Many modern-day narratives describe Asperger as the clinic director from 1935, but none point out that Asperger was what we'd now call a third-year resident when he got the job. Describing more senior doctors like Frankl and Weiss as "Asperger's staff" paints a misleading picture, even though technically correct.

The clinic staff had scattered. Jekelius went to work for the city health department at Spiegelgrund hospital, where he would establish their infamous child euthanasia clinic. Asperger and Frankl were the only medical staff left, along with Sister Viktorine and psychologist Feldner. During that period Asperger settled on a term to describe the condition he saw in so many of their patients: autistic psychopath, a personality disorder derived from the schizophrenic psychopath Bleuler and Lazar described a few years before.

In doing so, Asperger diverged from Frankl, whose writing favored a neurobiological explanation for autistic behaviors. He seems to have built on the thinking of Weiss, who described psychopathy in her 1933 autistic-like case study (1935). Weiss had embraced Lazar's ideas of

psychopathy, and it seems Asperger did, too. That would have far-reaching implications, as would Frankl's retention of the neurobiological hypothesis.

Frankl continued to work at the clinic but by 1937 his position was precarious.² Kanner's job offer came just in time, along with a US entry visa where Kanner had vouched for him personally. An Austrian exit visa followed a short while later. Four days after leaving Vienna, Frankl boarded the Cunard liner *Laconia* in Liverpool, bound for New York. Some would have called Georg Frankl a refugee, but he had a tourist-class cabin, US\$1500 in the bank, and US\$55 in cash. His papers were all in order and he had the job offer letter in his pocket. He wasn't so much fleeing the Nazis as racing to join Weiss, who'd been waiting for him nearly 3 years.

Frankl arrived in New York on 16 November 1937 and married Weiss 6 days later. The next order of business was his medical license. As Kanner would later note, Georg Frankl was one of the few doctors to pass the American license exam on his first try. With that, he started his new job as a child psychiatrist at Johns Hopkins' Harriet Lane Children's Home. To all indications, Frankl quickly became one of Kanner's top clinicians. Kanner publicly praised Frankl's abilities and his 12-year background at the Vienna Hospital.

The following fall, Kanner met the patient who would establish his reputation in autism: a 5-year-old named Donald Triplett. After initially evaluating Triplett, Kanner turned him over to Frankl and his colleague Dr Eugenia Cameron.³ They spent 2 weeks studying Triplett without a diagnosis. *NeuroTribes* and *In a Different Key* both describe that evaluation.

The Triplett file at Johns Hopkins does not mention the word autistic after that initial 1938 visit. Kanner seemed unsure what to make of him. Frankl probably recognized some of his behaviors from children he'd seen in Vienna, but the record shows no diagnostic label. The early descriptions of Triplett portray a more impaired child than those who appeared in Asperger's case studies of the day; more in line with Gottfried, a child they had seen at the Vienna clinic about 1933. Weiss had written a case study on him (1935).

Back in Vienna, Asperger gave a 1938 talk where he spoke publically for the first time of autistic psychopathy in one child. Based on that, he told his audience that brighter autistic individuals could be useful, perhaps essential, to society. He also presented what became the autistic spectrum, reporting that the differences he described appeared in children at all levels of cognitive ability. For the most impaired people, Asperger spoke of "hard choices" clinicians had to face, to keep "bad genes" out of society. Asperger presented everything in his talk as his own original work. In fact, what Asperger claimed was clearly based on Bleuler, Lazar, Frankl, and Weiss, but the political climate precluded crediting Jews like Frankl or Weiss with any intellectual achievement.

Today, Asperger is credited with first recognizing the breadth of the autistic spectrum, but it is important to point out his perspective when doing so. Asperger wrote favorably of the bright autistic psychopaths in 1938–1945 German-language articles, but his treatment of more impaired children was harsh. He describes them as imbeciles, having interests of no possible value. The language he used was strikingly different from that used by Kanner when describing similar cases.

It was Lorna Wing (1981) who really championed the modern concept of the autism spectrum even as Asperger said he did not agree with her on that point. Prior to that, Frankl (1933, 1957) had written of a continuum but made little of the idea.

Meanwhile, 3 years passed as Frankl settled into his new life as a child psychiatrist in America, working alongside Kanner. They continued to ponder a diagnosis for Donald Triplett. Correspondence between Kanner and Mrs. Triplett preserved in the Johns Hopkins archive suggests he was wrestling with that question.

Frankl apparently reviewed case histories of children Kanner saw before his arrival. We know that because there were 11 profiles in Kanner's 1943 paper, and Case 8 (Alfred L.) was seen by Kanner in 1935. At that time, according to Kanner's paper, his mother described Alfred's autistic behaviors but they were not recognized as such. That only happened *after* Frankl's arrival, the Triplett evaluation, and a review of earlier cases.

These events suggest that Frankl brought fresh insights with him from Vienna. He would have been aware of the use of Bleuler's terms "autistic" and "psychopath" to describe certain children. At the same time, Frankl had his own ideas about the neurobiological foundation of autistic behaviors and the breadth of the spectrum. We know from Asperger's journal that he mused about "autistic psychopath" as a possible term to describe children they saw as early as 1934. It is likely that Asperger got the suggestion from his mentor Frankl, who in turn learned the term from Bleuler. We cannot know exactly what those men said to each other, but it is possible that Frankl suggested the same to Kanner a few years later. It's equally likely Kanner came to that conclusion on his own, and Frankl reinforced that, as both men were surely familiar with Bleuler's work. Kanner actually cites Bleuler in other contexts in his (1935) textbook, and he would later state Bleuler was the source for the word autistic (James Harris, 2016, personal communication). Sometime in 1941, Kanner and Frankl agreed the word autistic described the behaviors of Triplett and a few other children. Most significantly, they settled on "affective contact" as the central behavioral challenge.

Funding for Johns Hopkins child psychiatry was thin in those days, so Kanner had never been able to pay Frankl appropriately. Several of Kanner's letters make that point, even as they express his high regard for the man. Kanner recommended him for several better-paying positions and

Frankl accepted one of them in 1941, with Kanner's blessing. It seems that settling on the term "affective contact" was one of the last things the two men did together at Hopkins. We know that because the first draft of Frankl's *Nervous Child* paper (1943) was submitted at about that time, featuring affective contact in the title and body. Kanner's own affective contact paper was submitted and published in 1943.

Kanner first mentioned autistic disturbances of affective contact in a 1942 letter to Mrs Triplett, preserved in the Triplett file at Hopkins, and quoted in *In a Different Key*. In his letters of that time, Kanner consistently noted Frankl's valuable contributions. Although Kanner and Frankl may have discussed the naming of autistic affective contact, we don't have documentation; it may be that their simultaneous publication of papers on affective contact a short while later was meant as a mutual recognition. Kanner did not cite any sources in his (1943) paper even as he was surely aware of the foundations upon which his description was being built. In his later writings (1949 onward), Kanner would credit earlier sources and even state that his was not the first description of these traits. Psychiatrists of today see Kanner's (1943) paper as the seminal definition of autism, but in fact Kanner only used the word "autistic" at that time. He would not use the word "autism" as a definition for five more years.

Meanwhile World War II was raging in Europe and had spread across the Pacific. With no civilian communication between American and occupied Austria, the development of autism's descriptions would proceed on parallel but somewhat divergent courses.

Asperger's view of autistic psychopathy as a personality disorder came from his mentors Weiss and Lazar. Many other European clinicians would embrace a similar point of view over the next 50 years, to the great detriment of autistics who were seen as willfully misbehaving. Frankl and Kanner's neurobiological hypotheses took hold in America, and it has become the accepted view of autistic behavior in most of the world today. For an autistic person the concept of "neurological difference" is both healthier and more constructive than Asperger's behavioral explanation. When the two men are compared today, it is significant that this difference in their initial viewpoints is almost always overlooked.

One reason for this was that Asperger observed that some of the parents were "like the children," suggesting an inherited condition. While we now recognize personality disorders as heritable, that is a much narrower view of autism than what prevails in much of the world today.

The respective patient populations also explain some of the divergence in their thinking. The top 1% and the bottom 1% of the IQ range were present in the American population, along with everyone in between. In wartime Baltimore, children with severe cognitive impairments might have been pitied and even mocked or scorned, but

they still had a right to life. At least that's what Kanner thought, and he expressed those views strongly when euthanasia was discussed in American medical journals. Every state in America had institutions for what were called the "feeble-minded and defective," and thousands more cognitively impaired children remained at home with their parents. Kanner's clinic would identify many autistic children, quite a few of whom also had obvious cognitive or functional impairments. Some did not speak or they spoke strangely. The staff would observe hidden abilities in many of the children, but overall they had significant challenges.

The situation in 1941 Vienna was dramatically different. There, mothers were told cognitively disabled kids were "useless eaters"; a drain on the resources of state and family at a time when everything was needed to win the war. Nazi laws required doctors to report birth defects, cognitive impairments, blindness, and even deafness. Parents were encouraged to place those children in residential clinics, for the good of the family and the state. Once institutionalized, the children were systematically killed by poison, starvation, or exposure. There were several killing centers at Austrian hospitals, with Vienna's Spiegelgrund being the largest.

Parents were told their children were being sent for better treatment. When they died, the report would attribute death to sudden illness. At the time, most parents were ashamed of disabled children. That meant parents of disabled children didn't talk with each other, so the realization that disabled children who were sent away all died was slow to take hold.

By 1942, much of the bottom of the Austrian IQ range had been systematically exterminated.⁴ Consequently, there were no significant numbers of cognitively impaired children at treatment clinics in Vienna or anywhere else in the Reich. So when Asperger described his patients, they were all possessed of average or even exceptional intelligence.

The Nazi child euthanasia program may well have influenced how Asperger's autistic psychopathy diagnosis evolved. In the early 1930s, Weiss and Frankl first noticed the behaviors that would now be called autistic in children who were thought to be intellectually impaired. It was only later that children with higher IQs were observed. Thanks to eugenics and a twisted concept of "who would be useful to the Reich," these higher IQ children became Asperger's focus, and their intelligence and his training caused him to see their issues as a personality disorder, even as he recognized the same traits in their parents. The more intellectually impaired children were considered useless, and many were ultimately killed.

Kanner's first case studies had more severe neurodevelopmental disorders than those profiled by Asperger, which helped Kanner see beyond personality to the underlying neurological issues Frankl had described.

In their writings, Kanner and Asperger would agree on certain basic autistic traits. They both saw, “children who are in their own world,” “children who prefer to play alone,” “children who don’t show love, or respond to parental affection,” and the fixations on objects rather than people. They also agreed on the children’s need for routine and ritual, and recognized what we now call autistic special interests. And they both noted similarities with the parents, though Kanner and Asperger came to very different conclusions about causes, and they also focused on different traits.

In 1943, the journal *Nervous Child* devoted an entire section to Frankl and Kanner, and their reflections on autistic language and affective contact. Frankl had submitted his paper first, and the publisher approached Kanner for a complementary contribution of his own. Frankl’s paper was called “Language and Affective Contact.” Kanner’s paper was “Autistic Disturbances of Affective Contact.” It’s clear from the two papers that Kanner focused on children with no known neurological diagnoses, while Frankl took a broader view that included kids with recognized conditions like tuberous sclerosis.

That same year in Vienna, Asperger finished his thesis on autistic psychopaths and submitted it to the University of Vienna. The thesis was published in 1944 (in German). Meanwhile, Asperger was drafted into the Army and would not return to his clinical work until after the war had ended, in 1946. He would spend the intervening years as a medical officer. Frankl and Kanner did not have that distraction; they spent the war years at their hospital.

In “The ‘Autistic Psychopaths’ in Childhood,” Asperger described four children he had studied since the mid-1930s. Given those dates, Frankl (through 1937) and Weiss (through 1934) were present for these early case studies. Asperger describes IQ testing in the same manner that Weiss described testing in 1935. There’s no question their teaching laid the foundation for Asperger’s later assessments.

In “Autistic Disturbances,” Kanner wrote, “Since 1938 we have observed ...” a phrase that has been subject to several interpretations over the years but never expressly explained. In this writer’s view, Kanner’s “1938” refers to both the year Triplett was first evaluated and also the year Frankl arrived at Kanner’s clinic. There’s no doubt Kanner knew of Bleuler’s autism definition, but he didn’t apply it to children like Triplett until after Frankl’s appearance. There is also considerable similarity between Kanner’s description of Triplett—who was evaluated by Frankl for 2 weeks—and Weiss’ description of children like Gottfried in the mid-1930s. The common link—unseen till now—is Georg Frankl. And, behind both Kanner and Frankl stood Bleuler, with his (1911) description.

A final piece of evidence emerged from the Johns Hopkins archives, in the form of 1942–1943 correspondence between Kanner and Ernst Harms, publisher of the

Nervous Child journal. At that time, the journal planned to publish Frankl’s paper on affective contact and language. Harms hoped for a contribution from Kanner too. On 5 January 1943, Kanner wrote, “the more I read [Frankl’s paper], the more I am impressed by it and the more I realize what a gem it is. My own paper on autistic disturbances of affective contact is now [just taking shape.]” He continues, “The few cases that come into consideration present a condition that has never been described before.”

The two papers present a fascinating difference of opinion between Frankl and Kanner. Frankl tried to explain autistic behaviors in the context of other neurological disorders. Kanner presented autistic behavior as defining its own condition and excluded those with any known neurological condition. At the same time, it’s clear that both men saw a neurobiological condition, not a personality disorder or behavioral disorder.

According to Kanner, autistic behavior had never been described before, but Frankl would have known that was incorrect. He and his wife had described similar cases in as early as 1933, and European journals had published other descriptions (such as Sukhareva) even earlier although none used the term autistic in their descriptions. Yet, Kanner may have been unaware of those descriptions in an age in which there was no easy way for an American to search European journals. Prior to Frankl’s arrival in Kanner’s clinic, there is no evidence that Kanner had a particular interest in what we now call autistic behaviors. For him, that started with a detailed letter he received from Donald Triplett’s father and his subsequent evaluation.

Later scholars focused on the word “autistic” in Kanner’s title, but in fact the central issue about which he and Frankl wrote in their respective papers was affective contact or what we now call emotional connection. Kanner described withdrawal into the self and disconnection from family. Frankl observed disconnect from the perspective of language. Kanner did not speculate on causes; he merely described the behaviors he labeled “autistic disturbances.” Frankl’s paper asks if the disconnects were manifestations of schizophrenia, Parkinson’s, congenital word deafness, or tuberous sclerosis.⁵ Reading the two papers, it seems that Frankl had a broader view of autistic behavior that extended from Asperger’s highly intelligent autistic psychopaths to people with recognized neurodevelopmental disorders.

This view of autism as a spectrum should be no surprise, given Frankl’s 15-plus years observing behaviors that would later be called autistic. Reading between the lines, it certainly seems that Frankl might have been the unseen hand guiding both men, with Asperger having the advantage of being mentored first. Frankl and Kanner parted ways in 1941, when Kanner recommended him for a position as Director of the Buffalo Guidance Center. After 2 years, he became director of the child guidance clinic at the University of Kansas. Once in Kansas, his

wife worked beside him as a psychologist and began helping at United Jewish Social Services. War had destroyed their homeland, but the Frankls were safe in America. Both became US citizens: Anni in 1940 and her husband in 1944. Georg Frankl moved away from autistic behavior research, though he wrote one more paper on autism, in 1957. *Autism In Childhood*—124 pages—sits today in the rare book archive of the University of Kansas.

Weiss first wrote about the unusual intelligence of an autistic child observed in the Vienna clinic. In America, she continued her work, focusing not on autism, but on IQ and intelligence testing. Her husband knew about autism, based on his knowledge of Bleuler, but his interests were broader. He spent his career as a general child psychiatrist: one of the first in America in that budding field.

By 1949, Vienna was beginning to recover from the war. Asperger came back from the Army to head the Children's Clinic, and he reportedly encouraged Frankl to return to a post at the hospital (Silberman, 2016, personal communication). Frankl visited Vienna that summer to discuss it, but ultimately he took a position in North Carolina. Asperger struggled to rebuild the hospital in the aftermath of war, with most of the staff lost. He would remain there for the rest of his career.

Conclusion

The evidence makes a very strong case that Bleuler was the first to give the name autism to the social withdrawal we associate with that condition today, in 1911. From his 1934 diary entry, it seems Asperger may have been the first to use the term autistic psychopath to describe behaviors Frankl and Weiss had observed in the Lazar clinic. But, it's equally likely that Asperger was simply repeating a suggestion from Frankl or Weiss, his mentors in the clinic. Asperger recognized how his autistic psychopathy could drive creativity at its upper end. He also recognized family clusters and realized some autistic psychopathy is inherited, noting autistic traits in his patients' parents and other family members. Asperger was first to speak of autistic psychopaths publically in a 1938 speech, but Weiss described psychopathy in a child we'd now call autistic in 1935.

In 1962, Van Krevelen observed that Asperger focused on static traits (less emotional sensitivity, more rationality) where Kanner described a different course of development, in keeping with his neurobiological idea.

Three strengths of Kanner's (1943) paper were its deep insight into the nature of autistic detachment in children, the recognition that it was present from the very beginning, and the systematic description of the behaviors that led to later genetic findings. Kanner recognized that some people with autistic presentations speak, some have delay in language, and others do not talk at all. He also described the apparent disconnect between children and parents.

Kanner's subjects expressed a need for routine, focused intelligence, precise speech, and literal understanding, as did Asperger's autistic psychopaths. Kanner was the first to recognize sensory sensitivity. In this writer's opinion, Kanner's greatest initial contribution was advancing the neurobiological view of autism, as opposed to the personality disorder viewpoint articulated by Asperger. That perspective is the framework for accommodating all we have learned about the additional complications and co-occurring conditions of autism since 1943.

These early descriptions of autism remain outstanding for their many insights, almost all of which have stood the test of time.

The evidence presented in this article shows that Georg Frankl was really much more of a key figure than previously recognized. He had his own expertise, including a fundamental understanding of behaviors we now call autistic. He did not get his knowledge from Asperger; indeed, the reverse appears to be true. The fact that Asperger was running the children's clinic when Frankl left was immaterial to Kanner. What the evidence shows is that Kanner hired a Jewish doctor who was at risk in Nazi Austria, at the urging of that doctor's (Frankl's) fiancé. Kanner helped a great many Jewish clinicians escape Nazi Europe. There is no evidence that autistic knowledge played any part in his recruitment.

Frankl and Kanner were contemporaries, men of the same age and similar background. Asperger was a decade younger, and all of his clinical training with children was under Frankl. Modern-day descriptions of "Asperger as director and Frankl as his diagnostician" imply a relationship that is different from what the evidence shows.

Frankl's *Nervous Child* paper (1943) shows that he had a well-established and deep understanding of the communication and fixation aspects of affective contact, and that he recognized its existence across the intelligence continuum. In that sense, Frankl was describing a continuum (today, we call it a spectrum). He also speculated about possible medical associations, some of which have been since been proven. Frankl's greatest contribution is his early embrace of the neurobiological model to account for autistic behaviors. Kanner's original assessment is right—Frankl's paper is a gem—and it is worthy of renewed consideration, particularly as Kanner's companion piece rose to such prominence.

The facts presented in this article show that there was no impropriety in the near-simultaneous appearance of the Asperger and Kanner papers. Kanner and Asperger were both influenced by Frankl, and Bleuler in turn inspired Frankl and Kanner. To a significant degree, similarity between the Asperger and Kanner descriptions is testament to the strong and previously unrecognized influence of Frankl. The story of autism's definition is all the more remarkable now that these additional facts have emerged.

Two unsung heroes have emerged in this tale. Georg Frankl deserves credit for first observing the autistic disconnect between facial expressions, body language, and speech (1933). Anni Weiss noted hidden intelligence, fixations, and communication impairments in case studies as early as 1933 (1935). Both those observations were key to the autistic psychopathy description Asperger would formulate, and Frankl was beside Asperger for the formulation through late 1937. Then, Frankl was beside Kanner when his neurobiological ideas about autistic behavior took shape. And we mustn't forget Bleuler, who may well have been describing some autistic people as he formulated his definitions of schizophrenia.

There's no one "father of autism" in this story. The closest we come is to acknowledge Bleuler for naming autism in schizophrenia in 1911, Frankl and Weiss for describing many of the autistic behaviors (without naming autism) by 1935, Asperger describing "autistic psychopaths" who might be of use to the German Reich in 1938, and Kanner for the definitive initial portrayal of autism in 1943. In this writer's opinion, if there is any pivotal figure in this story, it is Georg Frankl, and he wasn't even committed to autism research. He just wanted to be with Anni.

It's ironic that the Frankls never wished to be autism specialists. Back in Vienna, they seem to have given Asperger much of the knowledge base for his diagnostic creation. Their desire to be together brought autism's diagnostic foundation to America, where Kanner and Frankl shaped the version that was ultimately published by Kanner.

The Frankls did find their dream in America. They may not have raised a family together, but their work helped thousands of children. Anni spent years volunteering for Jewish social services, and both of them worked with disadvantaged people in Kansas City and North Carolina. Georg Frankl died in 1975 and his wife in 1991. They were married 37 years.

When we acknowledge Frankl, Weiss, Kanner, and Asperger, we should also recognize the contributions of the many 19th- and early 20th-century clinicians whose detailed case studies clarified the behaviors and traits later associated with what we call autistic. It's significant that almost all those reports came from Europe, even as Kanner made his autism diagnosis an American phenomenon. Kanner did not mention any of those people in 1943, but he would cite them in his later papers.

Also noteworthy is the significant role Jewish people played in this story. Autistic children were described (as schizoid) in 1926 by Sukhareva, who was Jewish. From the Lazar Clinic to its early staff ... then Kanner as an early Jewish emigrant from Germany ... Frankl, and Weiss ... and Kanner's efforts to help Jewish medical people in Europe. The story of autism's definition is an overlooked triumph of Jewish culture.

If the Nazis had never come to power, Weiss would have had no reason to go to America, and Frankl would not

have followed. In that case, Kanner may not have made the leap from where he was in 1938 to naming autism and focused on the importance of affective contact as he did. Autism is what Kanner will always be known for, but that's just a word. Affective contact is the key component of autistic disability, and Kanner and Frankl's brilliant insight is that together they recognized that from the start. Today, we call it emotional connection. Helping autistic people connect to the wider world was the challenge they recognized at the outset, and it remains a primary challenge today. What would that mean for the millions of people called autistic today, had Kanner and Frankl not made that leap of reason, as expressed in their two papers? What if Weiss and Frankl never fell in love, or broke up before carrying their insights across the Atlantic? It's sobering to think how much history hung on a chance and a love story.

A note on the research

Medical journal articles generally report research results, and cite written sources in other medical journals. As a historical retrospective this piece is somewhat different. To unravel the history of who was where, and when, I turned to sources more familiar to historians and genealogists.

To learn about the Lazar clinic and the University Hospital of Vienna, I read articles in medical journals (cited as conventional sources) and read contemporary accounts from genealogical databases and historical records. Records for Jewish clinicians in 1930s Austria are few in number. Herwig Czech published a lot of valuable groundwork, in the course of his research into Asperger. Thanks to John Ronald for his translation efforts.

For the details of Weiss and Frankl's journey to America, I reviewed the Ellis Island immigration database, and from there I went to the steamship manifests of Cunard and the other lines. I also reviewed migration records from France and England. Some of those sources are accessed directly while others can be searched with genealogical subscriptions like Ancestry.com.

The record of Anni and Georg's marriage is on file in New York City. I got other details about their lives here from Georg's statements in the 1940 census (which is now open to the public) and the transcripts of his interviews when he transferred his medical license to North Carolina (also a public record.)

John Donovan and Caren Zucker obtained Donald Triplett's permission to review his Hopkins file, and they shared that material with me. That allowed a window into the process by which Kanner formulated his thoughts in letters to Mrs. Triplett. Other information came from the Kanner archive at Hopkins and from the collection of early journals at the National Library of Medicine. I thank John Donovan for that.

Historians also rely on vast searchable newspaper archives, and I found Kanner and Frankl in those, alone

with other doctors who are peripheral to this story. Newspaper articles tell us a lot about the comings and goings of people, and how they fit together. For example, it was a newspaper story that told me when Dr Frankl replaced Dr Eugenia Cameron as senior psychiatrist in Kanner's clinic, and it was another newspaper story that told me of the Frankl's Jewish relief work.

Some questions still remain. For example, Weiss and Frankl married immediately after his arrival in New York, and stayed married the rest of his life. Why hadn't they married in Vienna? So far, the records have not yielded an answer. The other thing we cannot answer is what people actually knew and thought, long ago. That said, the research in this paper presents quite a bit of new information, and with that, a more reasonable hypothesis emerges.

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Notes

1. In much of this article, I will use the word autistic because that is what Kanner and Asperger used in their 1943–1944 papers. Neither man called the condition they described autism until some years later. That is a significant point, and it's been confused by the popular translations of Asperger's thesis, where the word "autism" was liberally inserted by the translator even as Asperger never wrote it. Autistic disturbances, autistic psychopathy, and autistic behavior were the terms used in 1935–1944.
2. Castell (2008: 104) described the supposed firing of Frankl; however, Frankl's own statement in his Hopkins personnel record says he worked at the Vienna clinic until November 1937, when he left for America. That would suggest he resigned and was not fired.
3. Cameron was Frankl's predecessor at the clinic. They worked together for about a year and a half before she left for Wisconsin. Her comments in newspaper interviews of the day show she was possessed of great sensitivity and compassion, as was Frankl. By 1943, Cameron was in charge of the Wisconsin state board of health. She would later (1948) become the Psychiatric Director of the Mental Health Center of Dane County, another pioneering child guidance clinic.
4. I tried to figure this out from the population stats versus numbers killed but could not arrive at a solid number. That said, the percentage was significant. Prewar population of Vienna: approx. 2MM. Number under the age 18 years: approx. 400k. Number of those who would be "feeble minded": 4000. Number killed in clinics: approx. 1000. That assumes the feeble minded make up 1% of the population of children. The ones who were so disabled as to qualify for euthanasia may have been 0.5% in which case half of them were killed.
5. While Parkinson's is not a condition we associate with children, there was an outbreak of a Parkinson-like condition after the 1917 flu. This is believed to be the condition afflicting the older patients described by Sacks (1973). With respect to tuberous sclerosis (TS), Frankl's observation was well ahead of its time. We now know that at least 1/3 of TS patients meet the current criteria for autism too.

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