

JEAN PIAGET AND LEV VYGOTSKY

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How Family and Culture Influenced their Theories

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Abstract

Jean Piaget's and Lev Vygotsky's theories of child development are often paired and are rarely discussed without one another. The two men had similar lives, as they were born in the same year and had similar types of life experiences. However, their theories of child cognitive development had major differences. One major difference is Piaget's individualistic approach and Vygotsky's collectivist approach. Vygotsky's strong cultural ties influenced his conclusion that culture influences child development, and Piaget's lonely childhood influenced his conclusion that most child development is due to individual cognitive processes. These differences are strongly related to their upbringing and early life experiences and showcase the reasons why two similar men took two different approaches to constructivism.

Jean Piaget and Lev Vygotsky: How Family and Culture Influenced their Theories

Both Jean Piaget and Lev Vygotsky proposed revolutionary theories in the realm of developmental psychology. Many have pointed out the obvious similarities between both of their theories, particularly focusing on cognitive development and the acquisition of cognitive abilities (Pass, 2004). One could even argue that you cannot talk about Piaget without bringing up Vygotsky, or vice versa. Aside from the similarities in their work, there are a long list of similarities in their lives as well. However, it is far more crucial to acknowledge the conceptual differences in their theories and the potential environmental influences on the two men, as it pertains to their development of their respective theories. Many authors have revis-



ited the theories of Piaget and Vygotsky and have outlined clear distinctions in their work. In particular, Lourenço found that the ways in which each of the men approached and addressed the origins of cognitive development, the role of social and personal influence in development (2011). After outlining personal histories of both Piaget and Vygotsky and juxtaposing them, I will dig deeper into their respective theories to get a sense of how their personal lives influenced their theoretical framework. Here, I will examine how culture, social class, parenting and exposure to a particular political ideology impacted the worldview of each of them men and consequently their theories.

Childhood and Family

Piaget

Jean Piaget was born on August 9th, 1896 in Neuchatel, Switzerland, which borders France. Some of Piaget's ancestors were French refugees who fled to Switzerland from persecutions against French Huguenots during the revolution in 1848 (Pass, 2004). Piaget was the first-born child of his parents, Arthur and Rebecca, and had two sisters, Marthe and Madeleine. Piaget took an interest in natural science from a young age, as he was a committed malacologist and distinguished author by the age of 16. Though Piaget was extremely intelligent and was clearly accomplished, he came from a dysfunctional family and had many nervous breakdowns in his lifetime (Pass, 2004). He faced many challenges, including his mother being put on trial for slander when he was a child (Lorenco, 2012).

A well-known man in Neuchatel, Piaget's father, Arthur, was a Medieval literature professor at the town's University, and the author of a new historiography of Neuchatel. (Vidal, 1994). Despite his renown, his strong political Royalist attitudes made him unpopular in Neuchatel, but he was allowed to write the new historiography regardless (Vidal, 1994). His father's work as a professor was crucial to connecting Jean Piaget to other intellectuals who could help him on his journey to scholarship, one notable mentor being Arnold

Redmond (Pass 2001). Piaget also says that he got his love of facts from his father, who wanted him to study a true science, rather than study History (Vidal, 1994).

On the other hand, Piaget's mother, Rebecca was seen as eccentric. She was intelligent and energetic, but made his family life troublesome due to her neurotic temperament (Langfeld et. al, 1952). An authoritarian parent, she wanted her children to work rather than play, perhaps explaining why Piaget was so accomplished so young. In order to find refuge from her neuroticism, Piaget chose to follow in his father's footsteps by taking up science and staying grounded in reality (Vidal, 1994). He did not like to escape reality in any sense, because of his mother's issues with mental illness and paranoia that seemed to create a fear of losing touch with reality (Vidal, 1994). During World War I (WWI), Piaget's mother demonized the Germans as barbaric, among other things, and was ultimately found guilty of slander, due to her comments (Vidal, 1994). She was also a socialist, being first socialist woman elected to the local school commission, it is believed that her political ideologies and beliefs had some influence on Jean. However, it is reported that Jean attempted to remove his maternal influence all together, but this is conflicting, as it is also reported that his mother's role wasn't completely negative (Vidal, 1994).

Piaget's home life was self-reportedly chaotic, which one can only assume led him to seek refuge in his studies and his various memberships in local educational facilities (Langfield et al., 1952). While not all of his family life was traumatic, it still impacted his approaches to cognitive development, and impacted his focuses within the field, particularly with his individualist approach.

Vygotsky

Vygotsky was born on October 24, 1896 in Orsha, Byelorussia, near Minsk, until his family moved to the town of Gomel in 1897. Gomel was within the Pale of Settlement, meaning it was one of the few areas, in which, the Czar allowed Jews to live (Kozulin, 1990). Vygotsky's parents wanted their children to lead a life better

than one that Orsha could offer, since Gomel had a more cultural atmosphere. Culture was very important to Vygotsky's family, as both of his parents were philanthropists, who contributed greatly to Gomel's cultural *mélange* by helping to establish the Library of Gomel (Pass, 2004). During Vygotsky's childhood, there were two organized massacres of Jewish people, called pogroms, in Gomel. Consequently, Gomel suffered destruction from the looting and vandalism of the attackers. However, of the Jewish cities to experience pogroms in Russia, Gomel was one of the few cities that defended themselves and even defeated their attackers, in many instances (Kozulin, 1990). As a result of these pogroms, Gomel became a close-knit social group to survive, seemingly influencing Vygotsky's later work (Pass, 2004). Much of Vygotsky's family history and personal artifacts were destroyed in the pogroms and during WWI (Pass, 2004). Vygotsky's personal crutch was his slender and weak stature and his development of tuberculosis.

Vygotsky was the first-born son and the second child of his parents, Semyon and Cecilia Vygotskaya. In total, Vygotsky had 7 siblings. His mother Cecilia was part of many discussion groups that promoted literary and philosophical discussion and was a very kind and gentle woman. While, there isn't much information about her, it is written that she was very self-sacrificial, and she gave up her teaching job to raise her children. She enjoyed reading German poet Heine, and often read his works to her children (Pass, 2004). She also read the philosophy of Spinoza, who was often criticized by other Jews for his views on God's inclusive nature and that man can only know God's attributes of mind and matter. She would read these works of philosophy to her children, and the ideas of both Spinoza and Heine influenced Vygotsky, and inspired him to read more philosophy (Pass, 2014).

Semyon, Vygotsky's father was an executive at the United Bank on Gomel (Kozulin, 1990). He was thought of to be a very stern man, and has been thought to be very similar in personality to the father of Piaget (Pass, 2004). Despite his stern nature, Semyon was unlike Arthur Piaget, in that he was still a caring father to his chil-

dren, making time for them and not letting his work interfere (Pass, 2004). He would allow his children and their playmates to use his office space for play. Due to Semyon's financial success, he was able to afford personal tutors for all of his children (Pass, 2004). He also strongly believed that intellectual freedom was a necessity, making him a strong advocate for the Russian Revolution during Lenin's regime. Vygotsky himself became an advocate for the Revolution, resisting Stalin's regime and his attempt to dampen intellectual freedom (Pass, 2004). His fathers' political stance and his willingness to stand his ground can be seen in Vygotsky, as he himself held strong convictions and was not afraid to hold a minority belief or opinion.

Vygotsky had a very loving and warm childhood, due to his mother's kindness and his fathers' push for intellectual freedom and the cultural emphasis his parents placed on him and his siblings (Pass, 2004). The culture of Gomel was very strong and his home life was very positive, but the multiple pogroms and persecution of Jewish people within Russia made for a tumultuous childhood (Kozulin, 1990). The combination of strong cultural ties, a happy home, and a dysfunctional country impacted his thoughts on childhood cognitive development and surely impacted his theories. Especially with regard to his focus on culture, as influencing the developing child. While Piaget's family was a cause of dysfunction in his life, Vygotsky's country was his source of dysfunction (Pass, 2004).

Academic Influence

Piaget

From a young age, Piaget was very interested in Malacology, the study of mollusks. His earliest publication was, indeed, focused on the mollusk taxonomy. At the age of 13, young Piaget was initiated into the Friends of Nature, where he was asked to give a speech, that included a quotation from his teacher and renowned taxonomist Paul Godet (Vidal, 1994). Godet was a firm believer that science and religion were intertwined. He was also very interested in the origins of species, giving him strong opinions of Darwinian evolutionary

theory. Godet had a strong influence on Piaget's malacological work, and his life and Godet's death in 1911 had a great impact on him (Vidal, 1994).

At 15, Piaget was already thought of as a great mind, immersed in his malacological studies. At this time, he had three major mentors who guided him into his scientific career: Otto Fuhrmann, Emile Yung, and Maurice Bedot. Fuhrmann was a Neuchatel professor and successor of Godet at the Museum of natural history. Fuhrmann's research interest was helminthology, the study of worms, but his concurrent interest in hydrobiology led him to seek Piaget to classify specimens he gathered and to ask him to complete the atlas of Colombian mollusk classification that Godet had not finished before his death (Vidal, 1994). Fuhrmann's assistant, Emile Yung, one of Switzerland's most well-known scientists, became a mentor of Piaget, as well. Piaget also worked to classify species for Yung, who was interested in anthropology, hallucinations, and the psychology of the snail (Vidal, 1994). Another academic influence on Piaget was Bedot, the director of the Natural History Museum in Geneva. The two met because of Piaget's frequent visits to the library to check out books. Bedot was interested in ethnology, anthropology and music, though he specialized in the taxonomy of coelenterates (Vidal, 1994). Bedot also offered Piaget a position at the museum, though he had to refuse since he was still in high school (Pass, 2004). Piaget's connection to Yung, Bedot and Fuhrmann allowed him to integrate well into the professional world, and to become well-known and respected from a young age (Vidal, 1994).

In addition to his various mentors, Piaget was greatly influenced by philosophy. He says that his first introduction to philosophy was Henri Bergson. His introduction to Bergson came shortly after his mother enrolled him in a Protestant religious instruction course (Piaget, 1918). It is presumed that since Piaget was introduced to Bergson after religious instruction, his opinion of Bergson interpretation of Bergson epistemology happened under a religious lens (Vidal, 1994). Piaget was rather influenced by the ideas of "l'évolution créatrice", where Bergson talks about how, as humans evolve,

humanity moves away from the deterministic ideology surrounding evolution, and towards the free emergence of creativity and intelligence (Bergson, 1907; Balsillie, 1912). This sparked Piaget's new interest in philosophy, particularly religious philosophy ("Découverte de la philosophie", n.d). However, his reading of Bergson led him to his second nervous breakdown, as Bergsonian philosophy went against what his mother and his mother's church had taught him (Pass, 2004). This Bergsonian epistemology led him to shift his view of science being incapable of explaining life, but Piaget rejected some of the elusive methodology of Bergson, including intuition, which Bergson believed to be the way of studying life. Piaget's research interests changed rapidly in 1914, from studying mollusk mimicry to adaptation and evolution (Vidal, 1994).

Vygotsky

Vygotsky's introduction to the professional world and to formal education occurred under very different circumstances than Piaget. Being a Jew in Russia in 1913 was an obstacle that impacted Vygotsky's access to formal education. Since his family was wealthy and could afford private tutors, Vygotsky's only education was through those private tutors, until high school where he entered into the Jewish gymnasium, which is a type of schooling in many European countries that is roughly the equivalent of High School, in the United States (Kozulin, 1990). Vygotsky's main tutor was Solomon Ashpiz, who was training to become a mathematician. He was also qualified to tutor on all subjects. Vygotsky is reported to have had a keen interest in the social sciences from a young age, being considered a connoisseur of poets Pushkin, Tyutchev, and Blok (Kozulin, 1990). Vygotsky was particularly fond of "The Gentle Breath" by Ivan Bunin, and he ended up using it later in his career as an example of the conflict between form and content (Daniels, 2001). This is evident in Vygotsky's later work of Stage Theory (Smagorinsky, 2011). During Vygotsky's time at the Jewish gymnasium, he wrote his completed essay on *Hamlet* in 1916, only to be published in 1968 (Kozulin, 1990).

Vygotsky was also a part of a Jewish culture and history discussion club at the gymnasium, where he was first noted to show his interest in social science. He asked questions about what it means to be Jewish and other philosophical questions regarding the history and identity of Judaism, and how that relates to personal identity development (Kozulin, 1990). Vygotsky wanted to combine Jewish culture with the Hegelian understanding of the laws of history. School friends of Vygotsky noted that Hegel's work was a major intellectual influence on young Vygotsky, as Hegel asked many questions that sparked an interest in Vygotsky, such as what history is and how does an individual influence history (Kozulin, 1990). According to a childhood friend, Vygotsky was quite enthusiastic about the Hegelian view of history, often applying his epistemology to their study groups (Dobkin, 1982).

Vygotsky's cousin David Vygotsky, whose family spelled their last name with a 'd' rather than a 't', and a neighbor Semyon Dobkin became close friends in their childhood. Dobkin claims that David was a great influence on Vygotsky, inspiring many literary discussions between the two, and they created plays together, in appreciation for theatre. He was a few years older than Vygotsky and became a role-model to him. David was very bright and studied philology at St. Petersburg University, a subject that Vygotsky would go on to study in university, himself (Dobkin, 1982). He also prompted young Vygotsky to learn Hebrew, Latin, German, French, English, and Greek (Pass, 2004). David ended up joining a group of linguists at the University of Petrograd, where he theorized literature reform, in which, one would study the play of language forms. He shared these ideas with Vygotsky, as he was always interested in language and linguistics. David's theory of literature reform seemed to stick with Vygotsky, influencing his own theories of language, as the tool of learning (Pass, 2004). In addition to the influence of David Vygotsky on Vygotsky's interest in literature and linguistics, he introduced him to three famous linguists; Jakobson, Shklovsky, and Jakobinsky, who from the Formalists school. Vygotsky often made references to these three linguists in his later work.

Semyon Dobkin was a friend of David and Vygotsky, and wrote that the three called themselves the "Gomel troika" (Dobkin, 1982). Dobkin was also the only of the three to live to old age, eventually writing a biography on Vygotsky, which is where almost all of the information of Vygotsky's childhood comes from. Vygotsky seemed to always incorporate culture and learning into his play circles (Dobkin, 1982). The "Gomel troika" would often play chess together, a pastime that Dobkin introduced to Vygotsky and David, along with his passion for stamp collecting (Pass, 2004). Many of the reading that Dobkin did and shared with Vygotsky would later influence his own work. This included, Alexander Potebnya's *Thought and Speech*, William James' *The Varieties of Religious Experience*, and Sigmund Freud's *Through Psychopathology to Old Age*. Dobkin became a school teacher, though he would later change professions to find something more intellectually "challenging" (Dobkin, 1982). Vygotsky also became a school teacher at one point in his career, seemingly inspired by his childhood friend (Pass, 2004).

University

Piaget

Piaget began his University studies at the University of Neuchatel, studying natural science. Interestingly, most of Piaget's learning occurred outside of the University, just as it did in his early schooling. It was in this time that Piaget began working, again, with a mentor from his past, Arnold Reymond (Pass, 2004). Reymond and Piaget had been working, in his earlier years, to integrate philosophy with biology and rational thinking. While hiking in the mountains, Piaget had time to think about his lessons from Reymond, where he experienced a sort of "sudden insight" (Langfield et al., 1952) about such an integration. He spent this time writing a philosophical novel, reading everything from Bergson to Spencer. Perhaps most importantly, he reached a decision about two ideas, one being his theory of equilibration and the other being that the only God that exists was within oneself (Pass, 2004). In reference to these ideas, In *Recherches*, the main character, which is believed to be modeled

after Piaget himself, denounces a personal God for science, saying it is science that requires one's faith (Piaget, 1918). During his time in University, Piaget's interest took a turn from natural science to philosophy, which was the first step in his transition from malacologist to psychologist.

Vygotsky

Vygotsky attended the Imperial University in Moscow and Shanyavsky People's University in Moscow at the same time. His parents wanted him to study medicine, but he chose to study law, instead. This choice was due to the fact that at that time, in 1914, Jews were confined to Jewish cities. At the time, only Jews that were allowed to live outside of those cities were Jewish lawyers (Pass, 2004). Vygotsky became highly interested in pedagogy and psychology. At Shanyavsky People's University, Vygotsky and his sister took a class called "the internal form of the world," which made both of them more sensitive to the psychological and internal aspects of language. During his time in university, Vygotsky began to read the work of William James and Sigmund Freud and became increasingly interested in the complexity of the human mind, and how language influences learning (Pass, 2004). This interest is something that he would build into his body of psychological work, particularly his conclusion that language has social and external origins (Esteban-Guitart, 2018). Vygotsky ended up graduating from Shanyavsky People's University, with a good foundation in philosophy, history, literature, and psychology (Blanck, 1990). His training in literary analysis and philosophy, opened up the door for him to become a psychologist.

World War I

Piaget

Piaget's mother helped wounded soldiers, on both sides of the war, and Piaget often went along with her to help, even though he was still in university at this time. During this time, Piaget wrote *Mission of the Idea*, in which, he described that the youth needed to create a better world out of the ruins of WWI, and he called for a renewal of Christianity, especially among the youth. It is believed

that, in writing *Mission of the Idea*, Piaget was not only establishing a mission for the youth, but rather, his own personal mission. However, this was a time of psychological peril for Piaget, having two nervous breakdowns, as he began to realize that mankind needed a higher power (Pass, 2004). It was well-known that Piaget was averse to the war, and this time was where he began to assert his own religious and social ideas, establishing his own identity and future. It became clear that Piaget held the belief that science is only valid and only useful, if it is used to alleviate the sufferings of mankind (Vidal, 1994). This mission of utilizing science to better the human condition is became one that Piaget carried throughout his life.

Vygotsky

For Vygotsky, living through WWI was a much different feat than it was for Piaget. The climate in Russia during the war, and during the Russian Revolution made the early 20th century, was a time of suffering and unrest. This time was so hard on Vygotsky that he never even talked about it to even his children. However, it is known that during this time Vygotsky's brother died, and he and his mother were trapped in Kiev for a few months with no income (Pass, 2004). Due to the lack of food and access to fuel during the winter months, many people either got sick or got sick and died. Dodik, Vygotsky's younger brother got Tuberculosis, but they were unable to take him to a sanatorium, as it was too close to the fighting. However, they did not leave Dodik, even though they ran the risk of catching the illness. They attempted to take him to Crimea, where it was warmed and safer, but Kiev was as far as they could make it (Pass, 2004). However, in Kiev, there was limited opportunity for work, as it was flooded with refugees. This made Vygotsky feel hopeless, especially after Dodik had died, and he had no way to get home, leading him to take a job as a teacher in Kiev. Becoming a teacher allowed him to gain respect in the academic field. Vygotsky also began to think about building an educational psychology laboratory (Pass, 2004). Which he eventually did complete in Gomel.

Post-graduate Work

Piaget

After Piaget got his PhD in natural sciences from the University of Neuchatel, he went to the University of Zurich to study psychology. He worked under professors Wrechner and Lipps, also working in Dr. Bleuler's psychiatric clinic. Piaget decided to leave Switzerland for France to study things that were more concrete, in his opinion (Pass, 2004). He began working in a psychology lab under Pierre Janet, where he learned the genetic approach to the psychology of behavior. He also was able to solidify his ideas about the hierarchical organization of psychological functions (Pass, 2004). Together, Janet and Piaget worked on the concept equilibration, the idea the children internalize observations about their world, and created a construct from that internalization. To Piaget, this explained the nervous breakdowns he had had and solidified the ideas of equilibration that he wrote about in *Recherches* (Vidal, 1994). Piaget was influenced by the work of Janet, directly reflected in the fact that Piaget based his conceptual framework on the formation of knowledge off of the approach Janet took to the psychology of behavior (Pass, 2004).

Piaget also spent two years in Sorbonne, where he took a course by Dumas on pathological psychology. He also studied with Lalande and Delacroix on the philosophy and logic of science. He claimed that the reference to psychology and the historical-critical period method that they made had a great influence on him (Evans, 1922). Piaget then worked in the laboratory of Dr. Binet after his death, where he was asked to complete the standardization of Dr. Burt's reasoning tests on children. Piaget became fascinated with the failures on the test, realizing that children age 11 to 12 often were unable to learn coordination of relations, inclusion of parts as a whole, and the multiplication of classes (Pass, 2004). After spending two years working with children on these tasks, Piaget realized that he had found his niche. Using his knowledge of Gestalt psychology, Piaget realized that one could study the cognitive differences in children by analyzing the psychological processes that underlay their logical

operations (Evans, 1922). Using the ideas of Bergson, Piaget realized that children are not born with logic, but rather develop up it through equilibration, or through experience (Pass, 2004).

Piaget began publishing articles on these topics, integrating his interests in biology and philosophy, eventually landing himself a job as Director of Studies at Jean-Jacques Rousseau Institute in Geneva (Evans, 1922). He then began working incessantly, having very few limitations on his research. He was working with mentors Claparede and Bovet, who were both Protestants, and Piaget recognized that they all had similar moral frameworks (Vidal, 1994). At Rousseau, all of Piaget's ideas were synthesized, as he began to realize that his ideas from researching children in Paris were, indeed, correct. He wanted to find the psychological mechanisms of causal reasoning and logical operations (Pass, 2004).

Vygotsky

In 1917, after Vygotsky graduated from both Shanyavsky and Moscow, he moved back to Gomel. He became a teacher and opened a psychology laboratory. He also took a course from Vladimir Uzin, who was a literary critic and did work in translating plays and literature from Spanish to Russian (Dobkin, 1982). Vygotsky felt a sense of urgency with his work at this time, as he found out he had caught tuberculosis from his brother Dodik, and didn't know how long he would live. In addition, Gomel was plagued with chaos from the Russian Revolution at this time, which Vygotsky dealt with by busying himself with anything he could. While working as a public-school teacher, Vygotsky was able to do more research and solidified his ideas about his cultural-historical theory (Pass, 2004). Using his research lab, Vygotsky did research on reactions, leading to his writing of *Pedagogical Psychology*, his first major book. In this book, he agreed with Karl Marx that language is a tool of learning, and that the cultural-historical context plays a role in this.

During his time in Gomel after graduation, Vygotsky became a Soviet, as he found Leninism to be liberating, and wanted to prove that Marx was correct in his theories (Dobkin, 1982).

Vygotsky taught at the Soviet Labor School and the Evening School for Adult Workers, to give working adults an opportunity to receive a university education. There, he taught literature, psychology and pedagogy (Blanck, 1982). He was praised for his ability to teach Einstein's theory of relativity, which was not even understood by most scientists, of the time. He was also noted to be an excellent lecturer, on all subjects that he taught (Pass, 2004). In addition to his school teaching, Vygotsky also contributed greatly to the culture of Gomel, much like his parents did in his youth (Dobkin, 1982). He established a publishing firm called "Ages of Days", and set up "Literary Mondays", which were weekly literature lectures for the townspeople (Blanck, 1982). In these lectures, he mentioned works of Goethe, Mayakovsky, and Pushkin, all who had an impact on Vygotsky in his youth. He also founded a literary magazine *Veresk*, and was an editor and publisher for the Gomel newspaper. After finishing *The Psychology of Art*, his doctoral dissertation, he wanted a public defense, but was put back in a sanatorium for his Tuberculosis before he could get it. Despite not having a public defense of his dissertation, the committee waived it, and approved it. While still in the sanatorium in 1924, Vygotsky read *Le Judgement et le raisonnement chez infant*, which was written by Piaget in 1923 (Pass, 2004). While Vygotsky was in agreement with Piaget that children do develop in chronological stages, he rejected the idea that there were age groupings associated with these stages (Blanck, 1982). After being released from the sanatorium, Vygotsky spoke at the Second Psychoneurological Congress in Leningrad, in an attempt to prove Marxist theory to be correct, all while refuting the empiricists and behaviorists. His attempt was a success, particularly with his presentation on *Methods of Reflexological and Psychological Investigations* (Pass, 2004).

While Vygotsky was in Gomel, he shifted to the field of psychology, though the reason is up for debate. Dobkin believes that the shift in field was due to his obvious love of literature and theater (1982). He believes this because psychology was a branch of science that was much more literary, and less focused on radical empiricism than other fields of science, at the time (Dobkin, 1982). However, many disagree, saying that his theories were strongly based on Marxist philosophy, and that his early exposure to Marxist theory led him to generate his own unique ideas about child development (Pass, 2004).

Personal Lives and Developmental Perspective

Piaget and Vygotsky lived similar lives, experiencing various chaos, showing academic promise from a young age, and pioneering the field of developmental psychology. However, there are key differences in their theories that are directly related to differences in their own lives. The first key difference in their theories is that Piaget took an individualistic approach to learning, which means that he saw most learning as an individual task that relied mostly on cognitive processes. While Vygotsky took a collectivist approach, meaning that learning is done with the help of social 'others.' Another key difference, along those lines, is that Vygotsky attributed some learning and development to cultural and social influences, while Piaget's theory was strongly based on individual learning. However, Piaget did agree that playing with other children is important for development (Laurenço, 2012). Vygotsky is also very well-known for his Zone of Proximal Development (ZPD) theory, which is his approach to identifying the key processes in learning and development. In this theory, children need help from social others and from social tools to help them achieve a new skill (Esteban-Guitart, 2018). In contrast, Piaget saw the key processes in learning and development to be equilibration and the assimilation, adaptation" and accommodation of mental schemas (Jukes, 1991). These differences can be explained by differences in their socio-cultural contexts, which is, ironically, a very Vygotskian comparison to make.

Piaget

Piaget took an individualistic approach to learning and development and as we know, Piaget was a fairly lonely child. This was due, in part, to his mother's neurotic temperament. His father was cold and distant, prompting him to do engage himself in reading and learning alone. It makes sense that Piaget would see learning and developing to be an individual task, devoid of peer influence, as he, himself exemplified this idea. He didn't have influences that were his age until he was much older, and relied on older mentors who aided him, not out of social obligation, but willingly (Pass, 2004). Since Piaget saw his older mentors as helping willingly, he concluded that their mentorship was not the cause of his development and he believed that he would have developed regardless of their help (Vidal, 1994). However, this did not leave Piaget to completely discount peer influence, as he often talks about how children playing with peers is necessary for development (Lorenço, 2012). Interestingly, Piaget talks about how cultural and social influences are necessary for a child's development, yet those influences are excluded in his stage theory. Many recognize this contradiction in Piaget and see his theory as incomplete for that reason (Chapman, 1988). In Piaget's stage theory, particularly the Preoperational stage, is when children experience egocentrism. This means that they are unable to see another's point of view. In addition to egocentrism, children engage in egocentric speech, which is individual speech where a child is talking to themselves (Davidson, Davidson, Elkind, n.d.). Piaget viewed egocentric speech as something that should go away as soon as possible, and should be discouraged. He believed that it would lead to mental illness, as it kept the child thinking inside their own mind, rather than with others (Pass, 2004). This conclusion, that egocentric speech leads to mental illness, could be due to his mother's paranoia and neurotic temperament, since his mother's mental illness is what kept him from entertaining 'breaks from reality' like reading fiction (Vidal, 1994). Due to Piaget's rather lonely childhood, most of his learning was done individually and clearly had an influence on his outlook on normal child development. It

is also plausible to see his mother's mental illness as having an influence on his attitudes towards egocentric speech in the Preoperational stage of cognitive development.

As for Piaget's concept of equilibration, it was in development for much of his life. The idea was initially fostered through his reading of Bergson and Spencer, particularly his reading of *l'évolution créatrice*, in which the concept of equilibrium is mentioned. However, the idea was solidified during his time in the mountains, where he realized that the mental breakdowns he experienced were due to disequilibrium in his life. He realized that events of disequilibrium preceded his breakdowns every time. For example, Piaget had a breakdown after he read Bergson, as it contradicted his mother's teachings and what he learned in Protestant religious instruction. This also explained his nervous breakdown during WWI, while he was helping the wounded, as he saw that the world was so vile and was so far from what he felt that the world was capable of (Langfield et al., 1952). Both of these nervous breakdowns, he concluded, were due to his disequilibrium. In order to alleviate those feelings, Piaget saw that he had to change his schemas and alter his worldview, in order that his schema and reality matched. He then applied this concept of adapting one's schemas in order to be in equilibrium to children, as they develop and as they learn about the world.

Vygotsky

Vygotsky's socio-cultural theory centered around the idea that parents, peers, teachers, cultural beliefs and social constructs influence a child's development of higher order functions. He also is very inclusive a non-reductionist, as he concludes that one's cultural context affects development, but individual factors influence development too (Daniels, 2001). Vygotsky's own upbringing is tied very closely to his conclusions of social and cultural influence in development. One aspect of his upbringing that explains that conclusion is that he was raised in Gomel. Gomel was a town with a very strong tight-knit culture, where community and cultural events were of a very high importance. The importance of that cultural tie in Gomel was expounded due to the threat of Pogroms and the backlash

against Jewish people (Kozulin, 1990). As a result, Vygotsky grew up with strong cultural values. However, Gomel's strong cultural values weren't the only reason why culture seemed to be important to Vygotsky. Both of his parents were very active in Gomel's culture and, as was discussed, his parents moved their family to Gomel because of its rich culture (Pass, 2004). Since Vygotsky grew up in a home where culture was very important, and participating in culture was commonplace, his culture was a great influence on his development. However, one aspect of Vygotsky that is often neglected, with regard to his development of the socio-cultural theory, is his love of Marxist theory. It is naïve to neglect this connection, as Marxism has a very negative view of the individual mind, and is more concerned with one's social relationships, particularly in Marx's theory of cultural materialism (Fu, 1997). In Vygotsky's post-graduate years, he focused a lot of time and energy on proving Marxist theory correct, especially with his presentations at the Second Psychoneurological Congress in Leningrad (Pass, 2004). So, it is logical to conclude that Piaget's family, his culture, and his love of Marxist theory led him to draw the conclusion that individual development happened with the help of one's socio-cultural context.

Another major concept of Vygotsky that was directly influenced by his upbringing and his cultural context was the theory of ZPD. In Vygotsky's childhood, he had older friends, including Semyon Dobkin and his cousin David Vygotsky. Vygotsky, in particular, had a strong influence on him, as he often showed Vygotsky new literature or helped him to learn new languages (Dobkin, 1982). This peer influence is strongly tied to the ZPD theory, as Vygotsky concluded that children learn new and more complex tasks with the help of a more advanced social 'other' (Davidson, Davidson & Elkind, n.d.). Clearly Vygotsky was that social other for Vygotsky, helping him do things that he could not do alone, but could only do with the help of someone more advanced. In addition to his friendship with his cousin Vygotsky, Vygotsky's ZPD theory could also be explained by his relationship with mentor Ashpiz, who tutored him throughout his school years, until he went into gymnasium (Kozulin, 1990).

Ashpiz can also be seen to be that more advanced peer who helped him to do things that were in his Zone of Proximal Development. It is clear that Vygotsky's development of the ZPD theory can be tied to his own experiences of help from advanced peers and adults in his own development.

Conclusion

Piaget and Vygotsky are still considered to be conceptual forefathers of developmental psychology, as their theories are still widely accepted today and their concepts provided a strong framework, through which, developmental psychologists research child development. There are similarities in their theories, since they were both non-reductionists and they were both constructivists, yet there is still a crucial difference in their theories. That difference is the individualistic versus collectivist approach to child development. In addition to their theoretic similarities, there are many similarities in their lives, like: they both experienced chaos in their early lives, they were born in the same year and lived through the same historical contexts. However, once again, there were crucial differences in their lives that led to those differences in their theories. One interesting difference that seems to be counter-intuitive is Vygotsky's encouragement of egocentric speech, as a precursor for inner dialogue, and Piaget's rejection of egocentric speech, as it was seen as a precursor for mental illness (Pass, 2004). Vygotsky had strong cultural ties in his child and family, while Piaget was quite lonely and did most of his learning alone. Vygotsky's cultural ties and his acceptance of Marxist theory led to his creation of the socio-cultural theory and the ZPD (Fu, 1997). However, Piaget's lonely childhood led to his development of his individualistic stage theory, and his theory of Equilibration was developed in relation to his use of Bergsonian philosophy to explain his various nervous breakdowns. For those reasons, Piaget and Vygotsky are exemplars of how culture, family, and social contexts can influence two seemingly similar men in two very different ways.

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