羅夏克測試與大型語言模型

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　　我一直嘗試將不同的工具和大型語言模型（LLM）結合，這是將傳統軟體工具進行數位轉型最快的方式。例如曾將魚骨圖管理加上 ChatGPT，效果甚佳。接下來我想嘗試將 LLM 和羅夏克墨漬圖結合，進行心理投射測試時。

　　然而，我嘗試將 ChatGPT 和羅夏克墨漬圖」（Rorschach Inkblot Test）結合，進行心理投射測試時，ChatGPT 的表現就有點荒腔走板，言不由衷。

　　羅夏克測試使用 10 個墨漬圖案，每個墨漬圖案幾乎具有完美的對稱性。其中 5 個墨漬是黑墨，2 個是黑墨和紅墨，另外 3 個是彩色的。這些墨漬圖並非隨機或偶然的設計，羅夏克（Hermann Rorschach, 1884 ～ 1922）精心設計每一個墨漬圖，使其儘可能具有模稜兩可和「矛盾」的特點。

　　羅夏克將墨漬圖開發為診斷精神分裂症的工具。後繼者則擴大使用於一般的個性測試。無論是在心理學還是文化上，這個測試本身有著驚人的生命力。

　　羅夏克測試不僅僅關於你看到什麼，更重要的是你如何看待它。大多數的墨水渲染看起來像無意義的形狀，但羅夏克墨漬圖確實可以看出不同的東西，給個人的創造力留下空間，但這些墨水渲染也有一種真實的結構，可以客觀地檢查你所看到的東西是否符合標準或超出範疇。

　　羅夏克是一位瑞士精神科醫生，曾師從榮格（Carl Gustav Jung）。相較於羅夏克，弗洛伊德是一位文字型的人，他的心理學完全關乎言語療法，因此早期如 ChatGPT 的 LLM 較容易插入（plug in）弗洛伊德的測試。羅夏克認為，看見比說話更深刻，我們如何看待事物更能展示出我們是誰。最近，多模式學習模型（Multimodal LLM）就更能適應羅夏克的測試。

　　羅夏克在發明測試後不久就去世了，此測試在他無法控制的情況下朝著各種不同的方向發展。在美國，神祕的內在風格、個人魅力，是什麼讓你在人群中脫穎而出等特性，皆以不同羅夏克測試的變形版進行測驗。

　　第二次世界大戰爆發，羅夏克測試被大量運用於臨床心理學領域。它被用於紐倫堡的納粹審判，也被用於越戰期間叢林中的農民。專家對於不同被測者的反應會有奇妙的解讀。例如，您如果在 10 張卡片中有 4 個以上的性（Sexual）回應，可能暗示存在精神分裂症；如果被測試者的性回應過少，可能暗示性挫折。

　　羅夏克在墨點卡片濕潤的狀態下將它們沿中心軸對摺，使它們都具有對稱性，被測者很容易將它們旋轉 90 度，解讀它們像是水中的倒影。若被測者是罪犯，則鏡像回應被用來區分精神病患者和非精神病患者。對圖形細節的關注可以解釋為衝動或警覺性，亦即能夠看到他人忽視的事物。然而，如果過於關注細節，則可能表示對平凡事物的著迷，僵化的強迫性思維，有時還可能涉及偏執狂。

　　之後有大量論文發表對各種對象的測試，有些光怪陸離，有些還頗為搞笑。

　　羅夏克測試引發許多爭議，一些嚴謹的學者開始展開研究。一項於 2013 年進行的重要研究，回顧所有與該測試所聲稱測量的方面相關的研究，剔除不夠嚴謹的部分後，證實當前的羅夏克測試的可行性。這些墨水測試具有客觀的視覺特性，測試本身有著具體的歷史和用途，只要按照特定的方式運作，其結果就有意義。

　　羅夏克測試顯然不是容易駕馭的工具，若能巧妙地以微調模型或檢索增強生成 (RAG) 融入 LLM，其威力必然大增。

羅夏克（Hermann Rorschach, 1884 ～ 1922）。

Rorschach Test and Large Language Models

I have been consistently exploring the combination of various tools with large language models (LLMs) as the most effective method for digitally transforming traditional software tools. For example, merging the Fishbone Diagram with ChatGPT has proven to be highly effective. My next goal is to experiment with integrating LLMs and the Rorschach Inkblot Test for psychological projection assessments.

When I attempted to integrate ChatGPT with the Rorschach Inkblot Test for psychological projection assessments, ChatGPT's performance was inconsistent and lacked authenticity.

The Rorschach test consists of 10 inkblot patterns, each near-perfect symmetrical. Among them, five are black, two are black and red, and the remaining three are colored. These inkblots were not randomly created; Hermann Rorschach (1884–1922) meticulously crafted each one to maximize ambiguity and "contradiction."

Rorschach developed the inkblot test to diagnose schizophrenia. Successive researchers expanded its use to assess general personality traits. This test has demonstrated remarkable vitality in both psychological and cultural settings.

The Rorschach test pays more attention to how you interpret what you see rather than the images themselves. While most of the inkblots may appear as meaningless shapes, they can reveal various perspectives, allowing for individual creativity. However, these inkblots also possess a specific structure that enables an objective assessment of whether your interpretations align with standard expectations or deviate from them.

Hermann Rorschach was a Swiss psychiatrist who studied under Carl Gustav Jung. Unlike Rorschach, Freud focused on verbal processes, and his psychological approach was centered on talk therapy, making it easier for early language models like ChatGPT to incorporate Freud's methods. In contrast, Rorschach believed that visual perception delves deeper than verbal expression and that our interpretations of what we see can reveal more insight into our identities. Recently, multimodal learning models (Multimodal LLMs) have proven to be better suited for adapting to Rorschach's test.

Shortly after creating the test, Rorschach passed away, and the test started to evolve in ways he could not have anticipated. In the United States, different variations of the Rorschach test are used to assess traits such as mysterious inner qualities, personal charisma, and what sets someone apart in a crowd.

During World War II, the Rorschach test became extensively used in clinical psychology. It was utilized in the Nuremberg trials for Nazi war criminals and also used to evaluate peasants in the jungles during the Vietnam War. Experts provide interesting interpretations of the responses given by subjects. For example, having more than four sexual responses out of the ten cards might be interpreted as a sign of schizophrenia, whereas an unusual low number of sexual responses could indicate sexual frustration.

Rorschach created the inkblot cards by folding them along their central axis while still damp, resulting in a symmetrical effect. This design allowed subjects to rotate the cards by 90 degrees and view them as reflections in water. When analyzing criminal subjects, mirror responses help differentiate between psychotic and non-psychotic individuals. Observing fine details in the shapes can be interpreted as a sign of impulsivity or heightened alertness, reflecting the ability to notice what others might overlook. However, an excessive focus on details might indicate an obsession with trivial matters, rigid and compulsive thought patterns, or even paranoia.

Afterward, many studies were published involving tests on different subjects, with some being quite bizarre and others rather amusing.

The Rorschach test has sparked considerable controversy and prompted in-depth research by meticulous scholars. A comprehensive study conducted in 2013 reviewed all research related to the aspects the test claims to measure, excluding less rigorous studies, and confirmed the test's current validity. The inkblots have objective visual traits, and the test has a concrete history and purpose. When administered properly, its results remain meaningful.

The Rorschach test is clearly not a simple tool to master, but its effectiveness could be significantly enhanced if skillfully integrated into large language models (LLMs) using techniques such as fine-tuning or Retrieval-Augmented Generation (RAG).