

The role of argumentation in forensic neuropsychology: a perspective between scientific objectivity and legal decisions

El papel de la argumentación en la neuropsicología forense una perspectiva entre objetividad científica y decisiones jurídicas

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Summary

Este artículo analiza el impacto de la neuropsicología forense en el ámbito judicial en el contexto de litigios relacionados con la custodia de menores, violencia intrafamiliar, abuso sexual infantil y violencia de género. Evaluando la calidad y accesibilidad de los informes neuropsicológicos en estos casos, el trabajo muestra que en las causas de custodia los informes se distinguen por su claridad, precisión diagnóstica y relevancia científica, lo que facilita su ingreso al proceso judicial. En contraste, los informes en violencia de género y violencia intrafamiliar resultan más problemáticos en términos de claridad y accesibilidad lo que puede reflejar la complejidad de la evaluación del abuso emocional y psicológico en contraposición al abuso físico. Estos resultados resaltan la necesidad de trabajos en conjunto entre neuropsicólogos y abogados, y, por lo tanto, que los actores del sistema judicial cuenten con mejores constitución y formación en neuropsicología forense para optimizar la interpretación y uso de los informes. También se propone la necesidad de más y mejores metodologías en la neuropsicología forense para la elaboración de los informes que se presenten ante la justicia.

Palabras clave: neuropsicología forense, informes judiciales, custodia, violencia doméstica, colaboración interdisciplinaria.

Abstract

This article examines the impact of forensic neuropsychology in the judicial arena in the context of litigation related to child custody, domestic violence, child sexual abuse, and gender-based violence. Evaluating the quality and accessibility of neuropsychological reports in these cases, the study shows that in custody proceedings the reports stand out for their clarity, diagnostic accuracy, and scientific relevance, which facilitates their admission into

the judicial process. In contrast, reports on gender-based violence and domestic violence are more problematic in terms of clarity and accessibility, which may reflect the complexity of evaluating emotional and psychological abuse as opposed to physical abuse. These results highlight the need for collaborative work between neuropsychologists and lawyers, and therefore for actors in the judicial system to have better training and expertise in forensic neuropsychology to optimize the interpretation and use of reports. It is also proposed that more and better methodologies in forensic neuropsychology are needed for preparing reports submitted to the courts.

Keywords: forensic neuropsychology, court reports, custody, domestic violence, interdisciplinary collaboration.

Introduction

Forensic neuropsychology constitutes a fundamental interrelation within the discipline that integrates neuroscience and psychology in the judicial field in decision-making in cases with cognitive and emotional components, which are the nexus and foundation of legal decisions. (Sales et al., 2020) The field of neuropsychology is the field of science; law is based on legislation, ethical principles, and regulations. The disagreement between forensic neuropsychology and law lies precisely in how neuropsychology is presented and used as evidence in the legal system. (Aguinaga Vidarte, 2023)

Within the field of forensic neuropsychology, scientific reasoning is vitally important for evaluating the validity and significance of the results generated from evaluations of certain individuals. These evaluations could be for cases involving criminal responsibility, child custody, and brain injury assessments. (Dzib et al., 2023) Forensic neuropsychologists' reasoning must consider empirical evidence and the needs of the judicial system, which depends on transparent, logical, and pragmatic solutions for case resolution. The experts' ability to convey their findings in an understandable manner is of utmost importance. (Dujó & Paniagua, 2023).

However, the argumentative process in forensic neuropsychology has its challenges. The quality of a judicial decision may depend on complex and sometimes ambiguous neuropsychological findings. Sometimes a well-constructed neuropsychological report may be misinterpreted and therefore dismissed by legal professionals, who may lack the necessary expertise in neuropsychology. (Sweet et al., 2023) The misalignment between the demand for quick, unequivocal answers in the legal field and the careful, often intricate, scientific reasoning that needs to be provided can become a source of bias in a case. This underscores the need for further study of how experts articulate and justify their positions in court. (Marcopulos et al., 2024).

Lack of explanation as to why including other disciplines can contribute to the health and development of neuropsychology. Furthermore, external pressure from stakeholders in the judicial process can compromise the objectivity of forensic neuropsychology. Experts often find themselves in situations where they must defend their assessments against questions and arguments from the parties involved, which can lead to unintentional bias.(Begali, 2020)How a neuropsychologist frames an argument can affect a judge's assessment of the probative

value of the evidence, raising the question of how much impartiality could be maintained under such pressure. Here, the ability to differentiate between objective science and the more subjective realm of legal interpretation is essential.(Hutten et al., 2024).

The ethical dilemmas associated with forensic neuropsychology also influence the way neuropsychologists base their conclusions. These situations often force neuropsychologists to justify their determinations in accordance with those described in the forensic literature, while also taking into account the demands of the judicial system.(Gouvier, 2025)This tension is often unsustainable in situations involving the determination of criminal liability, where the mental health of the accused is a determining factor. In these cases, the neuropsychologist must show how the neurological disorders affecting the person may have been determinants of the subject's behavior, preventing the prescribed rationale from turning the explanation into a simplistic neuroreduction that ignores the multiple factors that influence the commission of a crime.(Tortora et al., 2020).

It should be noted that, although forensic neuropsychology must be based on scientific principles, ultimately, in the field of law, the final decision regarding the legality of a situation rests with the judge or jury, and it is, among others, their responsibility to consider scientific evidence based on its value and its resolution of the legal conflict in which they are involved.(Young, Soble, et al., 2025)The summoning of a neuropsychologist as an expert witness in a trial raises other issues within this interdisciplinary framework. What degree of real impact does his or her testimony have on the court's final decision? Should judges and juries be trained in neuropsychology so they can better support their decisions? These questions highlight the tense balance that must exist between law and science.(Martin & Schroeder, 2020)

The argument in forensic psychology must include a review of the available evidence. They must not only present their findings, but also describe the procedures they employed, the restrictions they face, and the implications of the conclusions they are arguing for in the legal context.(Leonhard, 2023a)This review is critical to establish that the judges' decisions are based on rationale that defends them and that the rights of the person being examined are being respected. The experts' arguments must be supported and described in a way that allows for critical review so that the scientific evidence is not distorted.(Reddy, 2025)

The discipline of neuropsychology. Neuroscience and neuropsychology offer advances in the understanding of the brain and its functions. The development of arguments in this regard is essential for the proper and scientific use of this resource in judicial decisions within the

scope of the law. The intersection of science and law will constitute both a challenge and an opportunity to improve justice and the understanding of people's behavioral reasons.(Guilmette et al., 2020)

Forensic neuropsychology has established itself as a fundamental interdisciplinary field, integrating neurocognitive science and the law, particularly in the assessment of complex human behavior from a brain-based perspective. This article focuses on discussing scientific

persuasion in forensic neuropsychology and the intersection of science and legality, based on the interests of neuroscience and the needs of the legal system.(Boone et al., 2022)This has become particularly important due to advances in the understanding of the brain's cognitive functions, which facilitate the assessment of cognitive, emotional, and behavioral conditions encountered in judicial proceedings. From a national perspective, this is reflected in the adaptation of forensic neuropsychologists to a scientific environment that seeks to offer courts clearer and more useful diagnoses. From a theoretical perspective, forensic neuropsychology focuses on the ethically complex interactions and methodological implications that arise at the intersection of data, science, and the law, which should and can be applied to a case.(Messler et al., 2025)

This paper highlights the importance of critically examining the intersection of neuropsychology and the law. It investigates how scientific reasoning can serve as both a connecting bridge and a barrier between the realm of science and the courtroom. Whether a forensic neuropsychologist's testimony will influence the final verdict depends largely on their ability to reason clearly, accurately, and objectively. This speaks to the need for continued research and advocacy for interdisciplinary training so that forensic neuropsychology can ethically and scientifically inform judicial decision-making.(Boone et al., 2022).

Materials and methods

The qualitative approach adopted for this work was descriptive and argumentative, from the perspective of a dialogue of scientific argumentation, given that forensic neuropsychology examines the boundary between science and law. The methodology was based on document analysis, in this case neuropsychological reports used for decision-making in judicial proceedings. Convenience sampling was used, selecting documents containing the most impactful neuropsychological assessments, which included cases of criminal liability, child custody, and brain injury, over a five-year period. This was intended to ensure a comprehensive picture of the legal situation and changes in practical argumentation.(Islas-Vargas & Leticia, 2025)

The target population consisted of neuropsychological reports prepared by professionals in the field, such as psychologists, psychiatrists, and neuroscientists, all of whom play an important role in the judicial process. The selected sample was diverse, encompassing various legal contexts, which made it possible to capture a broad perspective of the reports

used in court. Regarding the variables to be studied, elements related to the quality of scientific argumentation were examined, including the accuracy of diagnoses, methodological clarity and soundness, the coherence of findings and their judicial relevance, and, specifically, the relevance of such reports to the court's decision.(Arias-Gonzales & Covinos-Gallardo, 2021)

Data collection was based primarily on document analysis, which in this case consisted of reading the neuropsychological reports of the selected cases. This analysis focused on

detecting patterns and particularities in the neuropsychologists' arguments and defense of their conclusions in judicial contexts. Considerations included clarity in the presentation of neuropsychological results, justification of the methodologies on which the results were based, and the establishment of the relationship between the results and the legal implications of the neuropsychological findings.(Sánchez Molina & Murillo Garza, 2021)

Data organization and analysis were performed using induction, which in this case consisted of pattern searching and thematic analysis. For this purpose, content analysis was used, which facilitated the fragmentation of arguments into their constituent parts and the use of concepts such as assessment techniques, diagnostic objectivity, neuropsychology, and verdict. With this approach, the information was classified according to the diversity of arguments in the documents, allowing us to understand how forensic neuropsychology is organized within the legal system.(Sánchez et al., 2021)

This descriptive and argumentative qualitative approach allowed for a thorough exploration of how forensic neuropsychology is presented in court and how neuropsychological reports are used to support judicial decisions. Document analysis emerged as a crucial tool for analyzing the explanation and quality of scientific argumentation, as well as for analyzing the needs of the legal system as it adjusts to the presentation of neuropsychological evidence.(Jiménez-Moreno et al., 2022)

Results

Analysis of Neuropsychological Reports

In the context of the research, various categories of analysis were established for the neuropsychological reports in order to assess their quality and legal value. This, in turn, contributed to the development of a systematic analysis in the document review, encompassing the respective scientific aspects as well as elements of legality. The analyses were broken down into the following categories.(Bichard et al., 2022)

Diagnostic Accuracy: Refers to the evaluation of diagnostic reasoning in reports. This includes an analysis of the diagnosis of the disorders or conditions described, their identification, the justifications presented in relation to scientific evidence, and the context of the case.(Loring et al., 2025)

Methodological Clarity: Refers to the description of the methodology and techniques used in the neuropsychological assessment included in the report. Look for evidence regarding the appropriateness of the methods used for the case, the level of detail presented in the explanation of their application, and the justification provided for the selection of the technique.(McCormick et al., 2025)

Coherence of Findings: Refers to the evaluation of neuropsychological findings in relation to the evidence that had been previously determined, as well as the clinical history and the legal context of the case.(Sweet et al., 2021b)

Legal Impact and Relevance. This category covers the relevance of scientific findings to the judicial sphere. It determines whether the results of the assessment have a direct and evident influence on the resolution of the dispute and whether these solutions address the legal questions posed by the court.(Sherman et al., 2020)

Accessibility and Communication. The document's scope and ease of understanding by people outside the field of neuroscience, particularly judges, lawyers, and other stakeholders involved in the litigation, are analyzed. Consideration is given to appropriate simplification of the text and the layout of the findings.(Zago & Bolognini, 2020)

Ethics and Transparency. This category assesses whether neuropsychological reports are socially responsible, whether confidentiality issues have been upheld, and whether the restrictions on the findings have been adequately described and effectively communicated.(Merten et al., 2022)

Regarding the quality of neuropsychological arguments in reports for high-impact court cases such as domestic violence, child sexual abuse, gender-based violence, and custody, different characteristics and trends have been identified that affect the way neuropsychology is presented in court. Each of these arguments has specific characteristics that require different approaches in the argument.(Young, Erdodi, et al., 2025a)

1. Domestic Violence

Within neuropsychological reports in cases of domestic violence, the tendency to argue science in terms of the cognitive and emotional consequences of abuse is consolidated.(Fisher et al., 2021)Exploring the neuropsychological sequelae associated with post-traumatic stress disorder, as well as the anxiety, depression, and emotional dysregulation disorders that the perpetrator or victim of abuse present, due to the abuse that the person has experienced, is crucial for achieving accurate diagnoses and articulating arguments that demonstrate the clear connection between the disorders. In some cases, one or more of the brain mechanisms involved were overvalued, and descriptions of mechanisms that go beyond abuse and aggression and that could explain the life of the perpetrator or victim of abuse were neglected.(Galovski et al., 2021)

2. Child Sexual Abuse

In the evaluation of cases of child sexual abuse, neuropsychological reports focus on the long-term damage the abuse can cause to the victim. The impact on memory, attention, learning, and emotional assessments is analyzed.(Rothwell et al., 2021)The argument is assessed based on the specialist's integration of brain damage and the psychosocial consequences of abuse. However, sometimes the reports do not adequately explain the relationship between brain damage and the abuser's sexual behavior, which in the legal field can be decisive in establishing guilt or suitability for the care of a minor.(Kewley et al., 2020)

3. Gender Violence

In cases of Gender Violence, neuropsychological reasoning focuses on the psychological and neurocognitive consequences of abuse, including anxiety disorder, depression, and the ramifications of compromised self-esteem, body image, and self-perception.(Meneses-Meneses et al., 2023)The value of reports depends significantly on the neuropsychologist's articulation of the scientific evidence related to the neurobiological and emotional consequences of abuse (Hernández-Flórez & Klimenko, 2023). In some reports, the reasoning is coherent and well-founded, while in others, the understanding is rather superficial and overly generalized, which may overlook certain aspects of neuropsychological damage, thus diminishing the clinical value of the report in the legal context.(Torres-García et al., 2021).

In custody, neuropsychological reports should consider factors on parental capacity and factors on the child's emotional well-being, depending on the impact of the family environment, and especially the disorders that the parents may have.(Fisher et al., 2021)Neuropsychology in these cases focuses on the evaluation of cognitive, emotional, and behavioral factors in the parents, and the effect of any alterations on their relationship with their children (Hernández-Flórez et al., 2024). In some cases, the arguments are strong, and evidence can be found on how a parent's neuropsychological conditions impact their ability to provide a safe and stable environment for the child. However, some reports lack support explaining the impact that neuropsychological disorders can have on the parents' performance within the custody process, and this is affecting the quality of judicial decisions, which are based on documentation with little evidence.(Dzib et al., 2023)

The results of the evaluation of neuropsychological reports in court cases involving domestic violence, child sexual abuse, gender-based violence, and custody are presented below. To illustrate and facilitate understanding of some of the results, graphs and tables were used to summarize the most relevant aspects of the neuropsychological arguments.

Table 1.

Results of document analysis

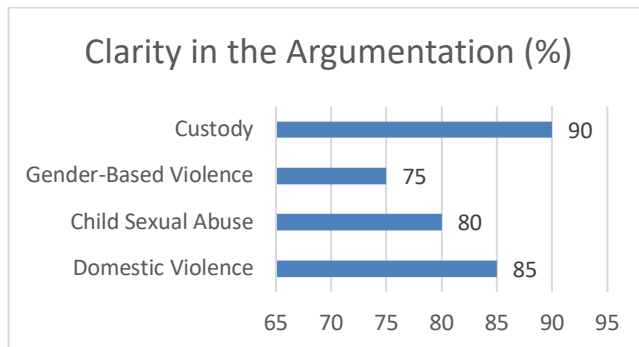
Case	Clarity in Argumentation (%)	Diagnostic Accuracy (%)	Impact on the Judicial Decision (%)	Scientific Relevance (%)	Accessibility of the Report (%)
Domestic Violence	85	80	78	82	75
Child Sexual Abuse	80	85	82	84	77
Gender Violence	75	75	70	72	73
Custody	90	88	85	87	80

Note. Prepared by the authors (2025)

Custody reports show a high prevalence of clear argumentation, achieving 90% accuracy and correct diagnostic accuracy, at 88%, making these reports more easily understandable and applicable to judicial decisions. In contrast, gender-based violence reports obtained the lowest scores in clarity (75%), diagnostic accuracy (75%), and impact on decisions (70%), implying that communicating in these cases could be a challenge. In the case of child sexual abuse, the diagnostic accuracy rate is high, at 85%, and impact on decisions is high, at 82%. In the case of domestic violence, the rate is somewhere in between for all aspects. Custody remains the most accessible, at 80%, and gender-based violence reports are the least accessible, at 73%.

Figure 1

Clarity in argumentation



Note. Own elaboration (2025)

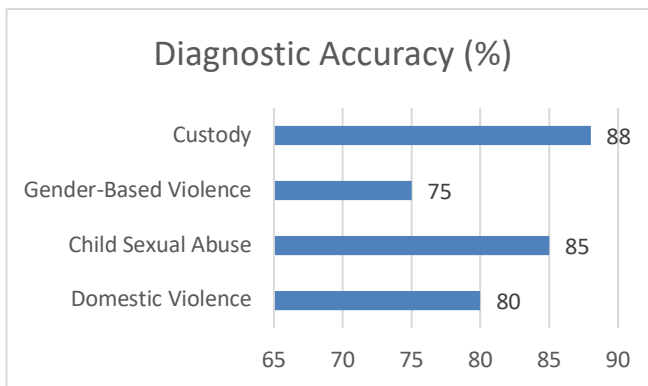
The graph shows that reports in custody cases present the greatest clarity of argumentation (90%), which is consistent with forensic psychology theory, which highlights the importance of reports being understandable to non-specialized judges and lawyers, especially when it

comes to child welfare. In contrast, reports of gender-based violence are the least clear (75%), which may reflect the complexity of these cases, where emotional dynamics make effective communication of findings difficult. Reports of child sexual abuse (80%) and domestic violence (85%) are at an intermediate level, indicating that, although clear, they still have room for improvement, as these cases require a delicate approach to adequately communicate

the impact of the abuse. These results reinforce the idea that the legal context influences the clarity and accessibility of neuropsychological reports.(Giromini et al., 2022)

Figure 2

Diagnostic accuracy

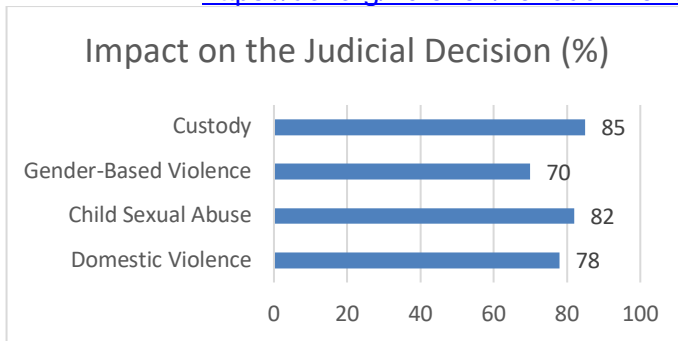


*Note.*Own elaboration (2025)

Custody reports are the most accurate, with 88% diagnostic accuracy, which aligns with forensic psychology, which suggests the need for precise and clear diagnoses in situations where the welfare of children is involved. It also links to the theory on the assessment of parenting capacity, which proposes comprehensive diagnoses of parents' ability to provide a nurturing environment for their children. Meanwhile, reports on gender-based violence have the lowest diagnostic accuracy, at 75%, which may reflect the difficulty of diagnosing emotional and psychological abuse disorders, which are insidious and difficult to measure. Cases of child sexual abuse (85%) and domestic violence (80%) have moderate accuracy and clearer diagnoses, suggesting that the complex intrapsychic and emotional issues prevalent in these forms of abuse remain a challenge.(McWhirter et al., 2020)

Figure 3

Impact on the judicial decision

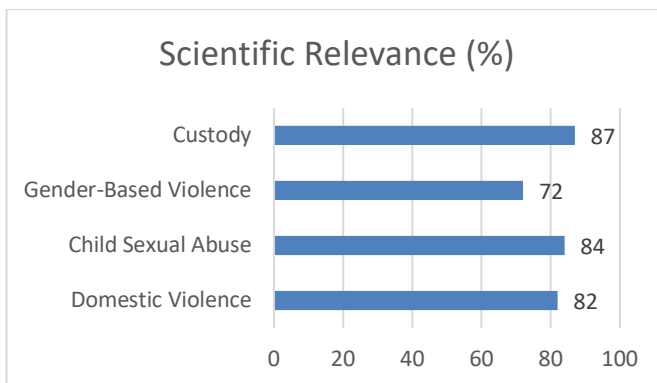


Note. Own elaboration (2025)

Reports in custody cases have the greatest impact on the judicial decision (85%). This is in line with child psychology and judicial decision-making, which underscores the importance of accurate neuropsychological assessments. This serves to determine the safest and most appropriate context for the child. This high impact may reflect the relevance of neuropsychology in advocating for child welfare, especially in cognitive-emotional aspects. For gender-based violence, the impact is the lowest (70%). This may indicate that, despite the severity of the abuse, scientific evidence is not being used as forcefully in judicial decisions in these cases, likely due to the complexity of power dynamics and psychological abuse. In the case of reports of child sexual abuse (82%) and domestic violence (78%), although the impact is high, it does not reach the level of custody cases. This leads to the conclusion that, although neuropsychological testing is essential in the case of reports, there are other situational factors that the court takes into account in reaching its final decision. (Henry & Gornbein, 2022)

Figure 4.

Scientific relevance



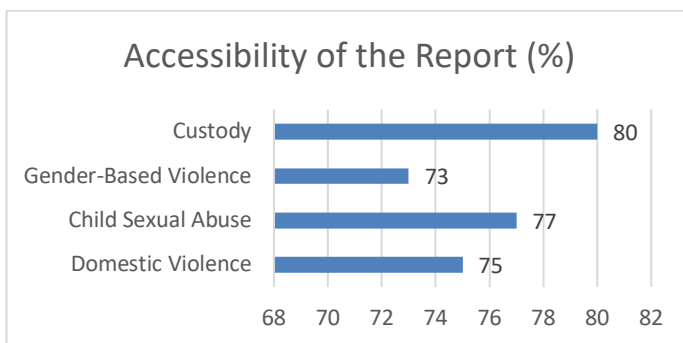
Note. Own elaboration (2025)

It is observed that reports in custody cases have the greatest scientific relevance (87%), highlighting the importance given to neuropsychology in considering child welfare in judicial

decisions regarding custody. Child assessment theory establishes that neuropsychological analysis is essential to understand the emotional and cognitive dimensions of parents and their influence on the family system. At the opposite end of the spectrum are cases of gender-based violence with the lowest scientific relevance (72%), which may indicate that, despite the relevance of neuropsychological evidence, the emotional and social components of abuse, as well as the interaction of other variables, are the most difficult to address and measure objectively. Cases of child sexual abuse (84%) and domestic violence (82%) also show considerable scientific relevance, suggesting that neuropsychology, although relevant, is insufficient. This indicates that challenges continue to be faced in integrating scientific findings into the trial due to the complexity of the psychosocial factors.(Sweet et al., 2021a)

Figure 5

Report accessibility



*Note.*Own elaboration (2025)

In the case of reports on situations that must be resolved legally, communication must be clear and understandable. On the other hand, reports in cases of gender-based violence have the lowest accessibility (73%), suggesting that, due to the emotional and psychological implications in these cases, it is difficult to present neuropsychological findings clearly and directly. Cases of child sexual abuse (77%) and domestic violence (75%) have moderate accessibility, indicating that, although the reports are understandable, it would be desirable to increase the level of comprehension so that the report can be more easily used in the judicial process. This highlights the need to improve the communication of neuropsychological findings, especially in judicial situations that are, by their nature, complex.

(Young, Erdodi, et al., 2025b)

Discussion

The results of this study highlight the importance of building robust interdisciplinary training between neuropsychologists and lawyers, especially in complex cases such as custody.

Forensic neuropsychology must overcome the challenge of translating highly technical and scientific information about the human brain into clear and accessible language for judges and lawyers.(Valencia & Franco, 2022)In this sense, the integration of both disciplines becomes crucial to ensure that neuropsychological reports are understood and, as a result, influence judicial decisions. Collaboration between neuropsychologists and lawyers has contributed greatly to informed judicial decisions that defend the best interests of the child. This is evident in the custody reports, where diagnostic accuracy and clarity were exceptional.(Marcopulos et al., 2024)

The incorporation of neuropsychology into the judicial system involves not only clarity and precision in diagnoses but also the scientific relevance of the reports. In the case of custody, with a scientific relevance of 87%, forensic neuropsychology is essential, as it determines the conditions under which a child will develop. However, in cases of gender-based violence, this integration is discernible, given that the scientific relevance was 72%, the lowest.(Leonhard, 2023b)In this sense, it is necessary to review the translation, from the principles of science to the legal field, and to consider that the complexity of certain abuses, such as emotional or psychological abuse, can make it difficult for neuropsychology to present the results.(Forensic Science International: Synergy, 2022)

The judicial system must work within social norms and legal interpretations, which means that evidence must be clear and available to make appropriate and fair decisions. The accessibility of reports, especially in custody cases (80%), indicates the success of forensic neuropsychology in these situations, especially when the child's well-being is at stake.(McCormick et al., 2025)However, the accessibility of reports in cases of gender-based violence was even lower (73%). This could mean that the emotional complexities and power dynamics in these situations make it difficult to present neuropsychological findings in a clear and usable manner for the legal system.(Pontér et al., 2020)

Regarding domestic violence and child sexual abuse, although we achieved high diagnostic accuracy (80% and 85%, respectively), the impact of the reports was lower than that achieved in custody cases. This difference could be attributable to what we described in cases where neuropsychological diagnoses are clear; the problem persists in the interpretation and use that the judiciary makes of the results in these cases.(Cruz, 2020)The impact of victimization and trauma, which explains the longer-term effects that abuse leaves on victims, may help explain why these reports, although accurate, do not equally affect judicial decisions. Reports need to better describe the effects of abuse in both quantitative and qualitative dimensions so that their impact on justice is positive.(Sweet et al., 2023)

The influence of judicial decision-making, as seen in cases of child sexual abuse and domestic violence, reflects how the dynamics of power, abuse, and victimization in these contexts impact how neuropsychological reports are perceived and used in court.(Young, Soble, et al., 2025)Although these reports are critical for determining criminal responsibility and protecting victims, their impact depends largely on the presentation of scientific evidence and the knowledge and understanding of neuroscience held by judges and lawyers. This

underscores the need for more judicial training on neuropsychological foundations, so that decisions take into account a more holistic understanding of the impact of abuse on the brain and behavior.(García-Martín & Morentin, 2020a)

The aforementioned work also indicates that, although forensic neuropsychology has improved in the accuracy and clarity of reports, there are aspects that remain unaddressed, particularly accessibility and scientific relevance.(Leonhard, 2023a)In this regard, it would be necessary to review the way in which reports on cases diagnosed with gender-based violence (73%) and domestic violence (75%) are communicated, given that accessibility was the lowest. This suggests that, despite the accuracy of the diagnoses, the reports are not accessible enough to be understood by those within the justice system. Incorporating visualizations, simpler models for presenting neuropsychological data, and other methodologies could impact the effectiveness of these reports for the judicial process.(García-Martín & Morentin, 2020b)

The study highlights the importance of continuing to foster stronger collaboration and interdisciplinary work between neuropsychologists and lawyers. Given the progress in neuropsychology and the development of more accurate tools for analyzing the effects of abuse and cognitive disorders, the legal profession will need ongoing training to understand and apply the most recent findings in the legal field.(Rothwell et al., 2021)Only close collaboration and the application of neuropsychology in judicial processes will allow decisions based on scientific, precise and ethical neuropsychology to be made in the resolution of complex and delicate cases, such as those of domestic violence and child sexual abuse.(Buhas et al., 2021)

This study emphasizes the need to refine and improve the accessibility and clarity of neuropsychological report writing methods. Improving how scientific results are communicated can help optimize the influence of neuropsychological evaluations on judicial decision-making.(Chopra-Galimotu, 2020)Ultimately, science must be a powerful means of safeguarding victims' rights and ensuring that their rights are defended in an evidence-based manner, especially in situations involving considerable psychological and physical suffering.(Begali, 2020)

A serious difficulty in integrating neuropsychological reports into the judicial process is the gap between the scientific complexity of the findings and the need for their simplification. In this sense, neuropsychologists face the challenge of translating their findings into terms that judges and lawyers without neuroscience training can understand and use in their trials.(Reddy, 2025). The accessibility of reports, as we observed in this study, is significantly associated with the type of case. For example, reports on gender-based violence and domestic violence, among others, require additional effort so that legal professionals can understand the findings fluently. Possible improvements in this regard would be the use of simpler language, the inclusion of infographics, or the preparation of summaries of the results.(Martin & Schroeder, 2020)

This study highlights the need to strengthen training and interdisciplinary collaboration in forensic neuropsychology. Tools emerging from neuroscience allow for the analysis of how abuse and neurological disorders affect people's behavior, but these insights must be delivered in a way that is understandable to those within the justice system.(Carabellese et al., 2020)This is particularly important in cases involving domestic violence, child sexual abuse, and domestic violence, which involve child custody. A better understanding and utilization of neuropsychological insights in the justice system will allow for fairer and, above all, more informed resolutions that protect victims.(Cruz, 2020)

Conclusions

This study highlights the importance of forensic neuropsychology in judicial decision-making, particularly in situations involving vulnerability and well-being, such as child custody, domestic violence, child sexual abuse, and gender-based violence. Neuropsychological reports in custody cases are generally more complete and clear, and present greater diagnostic accuracy and scientific relevance. This indicates that when judicial decisions based on well-structured scientific evaluations are made, the results are more effective in protecting the best interests of the child. Forensic neuropsychology in custody cases, and, more generally, forensic neuropsychology in situations, guarantee the clarity and precision that professionals seek and, consequently, a safe environment for the child. This reflects the importance of neuropsychology in the resolution of these cases.

When addressing cases of gender-based violence and domestic violence, the reports presented the difficulties these cases require in their preparation, clarity, and accessibility. Perhaps due to the emotional and psychological burden of these cases, which is not always captured in neuropsychological treatment documents. Psychological and emotional abuse has severe and persistent effects on victims, but these consequences are often more difficult to quantify and, therefore, less understandable to justice officials. Therefore, neuropsychologists are expected to be able to conceptualize these effects in terms understandable to judges and lawyers, who must consider these findings in their decision-making. Clearly, reports must not only be accurate but also communicative and take into account the realities of the context.

Neurological Basis of Criminal Behavior. We assume that for medical students to be understood among their peers in the academic setting, they must have passed various assessments imposed in the curriculum, which for the medical school year, students must pass. This will allow students from the medical curriculum, as well as from other departments in the faculty, to understand the "criminal behaviors" and the "criminal conduct" from the body of the "criminal conduct" text from the same set of texts. The departments of criminology, forensic medicine, and law are available to present and relate the concepts of these departments with other departments that allow for comprehensive training for students in the law school. In this way, it is hoped that students and future lawyers will have higher-quality training for the practice of their profession and for the criminal justice field.

Furthermore, neuropsychologists must continue to adapt their approaches to new developments and advances in neuroscience, utilizing tools and methodologies that improve the integration of findings into neurolaw. By incorporating graphics, preparing executive summaries, and using simplified formats, reports can generally be more understandable to judges. Although the final decision is made by the attorney, the attorney's understanding of the report is also important and can influence the decision. At the same time, neuropsychologists should continue to monitor research on the development of assessment techniques for cases of emotional or psychological abuse, where the impact on the brain and behavior is more complicated. Ensuring that neuropsychological reports are relevant and that reports are better adapted for greater accessibility will improve the fairness of judicial decisions, because they will be more grounded in the neurological and psychological relationships that constitute human behavior.

In conclusion, this study emphasizes the importance of further research into the integration of forensic neuropsychology into the judicial system. This branch of psychology still faces multiple challenges that science must address to positively impact litigation resolution. These challenges encompass interdisciplinarity, ongoing training for judges, the design of more accessible methods, and the ethical application of forensic neuropsychology in legal advocacy. Only through interdisciplinary work will the integration of science and law be achieved.

Conflicts of Interest

The author declares no conflict of interest.

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