Ethical and Legal Issues of Interaction between a Defence Lawyer and a Prosecutor during the Criminal Trial

Sergiy O. Ivanytskyy^{1,*}, Volodymyr S. Bondar², Alina P. Bunina², Demyd A. Morozov² and Dmytro Y. Fursov²

Abstract: The institutions of the prosecution and defence are recognised as equitable related institutions that facilitate the activities of the judiciary. The consolidation of the new status of the institution of defence in the judicial system necessitates the study of new forms of communication between the defence and the court, the principles of such interaction, including the consideration of international standards and European experience. The novelty of the study is determined by the fact that interaction between a defence lawyer and a prosecutor can only be within the framework of a court session and any exchange of information can be performed only if full publicity is achieved in the process of interaction between a defence lawyer and a prosecutor. The authors show that interaction is carried out through a judge and is completely personalised. Accordingly, the interaction should be implemented to influence the judge in the process of forming and passing an appropriate judgement. The authors determine that the such a judgement can be formed in the course of communication and the provision of certain arguments that a defence lawyer cannot communicate in advance and which can only be voiced during a court session. The practical significance of the study lies in the possibility of innovating the activities of a defence lawyer and increasing the appropriate level of perception on the part of the judge and, accordingly, the prosecutor as representatives of the institutions of justice.

Keywords: Trial, procedural, defence, evidence.

INTRODUCTION

The Opinion No. 16 (2013) of the Advisory Council of European Judges on the relations between judges and lawyers dated 15.11.2013 notes that judges and lawyers play different roles in the judicial process. However, the contribution of representatives of both professions is necessary to achieve fair and effective decisions in all legal proceedings according to the law. The independence of judges and lawyers should be guaranteed at the highest legislative level, - it is noted in paragraph 7 of Recommendation CM/Rec (2010). The defence as an institution and its activities in the aspect of ensuring the implementation of a person's constitutional right to legal aid acquires certain special properties of the subject of public relations (Ivanytskyy 2017). This property of the defence is expressively (enhanced) by the purpose of serving the public interest by providing timely and due legal aid in combination with the implementation of certain powers delegated to it by the state (Kogamov 2013). To build constructive relations during trials, there is the practice of the case law of the European Court of Human Rights (hereinafter referred to as the ECHR). The procedural legislation contains provisions according to which the

participants in the process, as well as other persons present in the courtroom, shall be obliged to unquestioningly follow the orders of the presiding judge, observe the established order in the court session and refrain from any actions that indicate obvious contempt of the court or the rules established in the court. Proceeding from the analysis of these provisions, it can be concluded that for the commission of any of these actions (for example, failure to comply with the orders of the presiding judge), even at their first commission, a defence lawyer may be brought to administrative responsibility.

The legal regulation of the institution of contempt of court in each state should be carried out with consideration of the provisions specified in the judgment of the ECHR in the case The Sunday Times v. United Kingdom of April 26, 1979. The ECHR has repeatedly pointed out that paragraph 10 of the Convention is applied in professional speeches of a defence lawyer, which may be sharp-tongued and even grotesque in order to enhance the imagery of their language and influence judges, but should not cross the line of direct insults. In the case of Čeferin v. Slovenia (January 2018), the ECHR recognised a fine for a defence lawyer for contempt of court as a violation of freedom of expression and once again expressed its position on the need to maintain a balance between

E-ISSN: 1929-4409/20

¹Department of Economic Security and Financial Investigations, National Academy of Internal Affairs, Kyiv, Ukraine

²Faculty of Training of Specialists for Units of the National Police of Ukraine, Luhansk State University of Internal Affairs named after E.O. Didorenko, Severodonetsk, Ukraine

^{*}Address correspondence to this author at the National Academy of Internal Affairs, Kyiv, Ukraine; Tel: + 38 (044) 246 94 91; E-mail: ser-ivanytskyy5298@nuos.pro

protecting the authority of the judiciary and protecting freedom of speech. The ECHR drew attention to the fact that persons who do not hold public office, including defence lawyers, have a broader right to freedom of expression than civil servants (judges and prosecutors). Thus, the foregoing suggests that the need for legislative consolidation of provisions that would ensure a proper balance between the need to respect the authority of the judiciary and the need for a defence lawyer, within the limits of given authority, to perform the duties of a defender (representative) in the case (Bielen and Marneffe 2018).

MATERIALS AND METHODS

In the criminal procedural doctrine, judicial proceedings are described as the central stage of criminal proceedings, in which the court of first instance, with the active participation of the parties, considers and decides the case on the merits, that is, ultimately clarifies all the essential circumstances of the criminal offence, verifies and evaluates the evidence and, on this basis, passes a judgment or rules (Liang and He 2014). The consistent implementation of the system of procedural actions of the court and the participants in court proceedings as defined by law ensures a comprehensive, complete, and objective study of the materials of criminal proceedings, proper verification and assessment of the evidence gathered in the course of the pre-trial investigation, as well as evidence that was additionally requested by the court or provided by the parties during the trial (Shytov and Duff 2019). This is of fundamental importance in organising the procedural activities of the defence lawyer to rebut the charges during the trial (Liu and Halliday 2009). Proceedings are conducted only against the indicted person and only within the scope of the indictment (Liang & He 2014). Consequently, the strategic task of a defence lawyer, who is focused on acquitting their client, is to prevent the version of the prosecution, which was finally formed after the completion of the investigation and is substantiated in the indictment and the attached materials, from having a decisive influence on the development of the internal conviction of the court (Langer 2007). Belief in the fairness of the preliminary investigation, idiosyncratic presumption of the truth of the indictment inclines some judges to a superficial, insufficiently thorough verification of the justification of the accusation, which can lead to unilateralism of the trial, its accusatory bias and is often the cause of judicial errors (Seroussi 2018).

RESULTS AND DISCUSSION

Therewith, the disclosure of the position of the defence at the beginning of the trial is limited only to the answer of the accused to the question of the presiding judge about whether the former understands the essence of the charges, whether they are guilty and whether they want to testify. The law does not provide for the expression of any argumentation of their position by the accused. At the beginning of participation in the trial, the defence lawyer forms an idea of the circumstances of the case, determines the ways and means of conducting the defence, but this is not yet a position in the literal understanding of this concept. The choice of a particular position by the defender does not change the main purpose of their activities in criminal proceedings - the identification of all that may testify in favour of the accused. The accused, answering the question of the presiding judge about whether they plead guilty, expresses their attitude towards the accusation, that is, their position in court proceedings. The defendant's denial of guilt predetermines a similar position of the defence lawyer as early as at the beginning of the trial, and therefore there are no obstacles to its reasoned statement to the court at this stage of the trial. In case the accused admits their guilt, the defence lawyer must have the opportunity, if there are appropriate grounds, to express to the court the opposite position, setting out the circumstances that indicate self-incrimination on the part of the client. If a defence lawyer is focused on refuting the accusation, then their position in court proceedings will constitute a counter-version opposed to the prosecution's version. Voicing such a counterversion of the defence immediately after the announcement of the version of the charge (expressed in the form of an indictment) will contribute to the maximum objectivity and impartiality of the court, and prevent the accusatory bias of the trial at large. It should also be considered that the choice of a certain position by a defence attorney at the beginning of the consideration of a case in a trial is dictated by the need to resolve the issue of the amount of evidence to be examined and the procedure for its examination; of the exclusion of some evidence from the evidence base of the prosecution. Based on the above considerations, it is appropriate to give the accused and their defence lawyer the right to make a defence statement immediately after the prosecutor has stated the content of the charge expressed in the indictment. Such a right should provide not only the opportunity to express one's attitude towards the accusation, but also to

indicate the circumstances testifying in favour of the accused. The criminal procedural legislation does not contain clear and unambiguous prescriptions as to what evidence and in what sequence should be examined in the court session. This issue is resolved by the court ruling, considering the opinions of the participants in the proceedings, guided by the general the implementation principles of of criminal proceedings, namely the only legislative imperative: the evidence on the part of the prosecution is examined at first instance, and on the part of the defence - at second (Ermilova 2019).

According to the results of a survey of lawyers, 58% of respondents noted that the procedure for examining evidence during court proceedings affects effectiveness of solving problems related to the rebuttal. The debatable question is when exactly in the clarification of the circumstances established in the process of criminal proceedings and their verification with evidence it is advisable to interrogate the accused in the interests of the defence, focused on the rebuttal. The testimony of the accused, heard at the beginning of the trial, allows the judges to immediately familiarise themselves with the main issues of the case, to establish, in particular, controversial ones, to reveal doubtful facts, accusations, contradictions in the evidence, to focus on the main and most significant evidence to be verified and researched. The testimony of an accused who denies their quilt, provided after the announcement of the indictment, verification, and evaluation of the evidence of the prosecution, is often perceived by the court as a manifestation of bad faith and an attempt to evade responsibility. interrogation of the accused at the beginning of the trial is beneficial for the accused themselves, given the fact that the trial begins with the announcement of the indictment, and the testimony of the accused may become a sort of response to it. Furthermore, even before the beginning of the interrogation of the victim and witnesses, the court will be familiarised with all the circumstances of the case of the accused and, considerina the statements. objections. clarifications made by them, will conduct a study and verification of other evidence. When the accused does not admit their guilt, the optimal procedure is usually such, according to which the accused is interrogated immediately after examining the evidence of the prosecution, which facilitates the establishment of counter-arguments, justification of the falsehood of the indictment. The optimal procedure for applying the above methods in the general system of judicial and

investigative actions in the interests of the rebuttal is determined by the defender individually, considering the specific circumstances of the criminal case, the content of the accusation, its criminal legal qualifications, incriminating and exculpatory evidence in the proceedings, their credibility, the degree of conflict in relations between the participants in the proceedings, the psychological readiness of the client to defend their innocence in the court session, the need to implement various intermediate tactical tasks of the defence, etc. (Bakashbayev et al. 2020).

Within the framework of the study of the submission of petitions in criminal proceedings by the defender, and the role of this legal instrument in the implementation of the tasks of the defence, it is worth addressing another aspect that directly relates to the procedural activities of the defender to refute the charges in court proceedings. One of the directions of this activity is the emphasis of the court on the shortcomings of the pre-trial investigation, consequence of which may be the acquittal of the accused. Any petition by a defence lawyer must be declared within the stage of the process at which the objective grounds and conditions for such a petition emerged. There is an opinion that the "reservation" of petitions at the stage of pre-trial investigate ion with their subsequent statement in court proceedings is performed with the sole purpose of compromising the investigation, contrary to legal ethics and the interests of the defence. Furthermore, it may be beneficial for the defence to focus the court on the shortcomings of the investigation as one of the grounds for acquitting the defendant. The defensive value of the testimony of the accused is largely determined by the questions asked by the lawyer. The approach, where the prosecutor interrogates the accused first and only then - the defence lawyer, is not entirely consistent with the competitive structure of court proceedings. If the line of defence is based on the rebuttal, then during the interrogation of the accused, the task of the defence lawyer is, first of all, to help the client put forward and develop arguments in support of their innocence. An analysis of judicial practice shows that the defenders underestimate the importance of achieving the purpose of protecting such a procedural measure as the examination of material evidence during the trial. As a rule, material evidence is attached to the materials of criminal proceedings at the stage of pre-trial investigation, and in court proceedings they are limited only to the examination of the relevant procedural documents (protocols of arrest on suspicion of committing a crime, inspection, search, etc.) without conducting a direct examination of the material objects themselves. Inspection of material evidence in court proceedings can be presented as a direct study by the court, the parties, the victims, and other participants in the criminal proceedings of the signs, properties, and processes that are available for perception by the human sense organs, inherent in the corresponding material object, which reflect information that is significant for criminal proceedings (Ashikbayeva, Gumar, and Zhanibekova 2018).

In the process of examination of material evidence during the trial, it cannot be considered by the defence lawyer separately from the procedure for adjoining such evidence to the materials of criminal proceedings. Under the current criminal procedural legislation, material evidence can be provided to a party to criminal proceedings voluntarily or based on a court decision. The seizure of material evidence is likely as a result of the application of such measures to ensure criminal proceedings as temporary access to things and documents, temporary seizure of property (including during the arrest of a suspect, conducting a search or examination) with its subsequent arrest. Material evidence is also obtained by the prosecution as a result of certain investigative (search) actions. Such material evidence must be examined, photographed, and detailed in the inspection report. Consequently, in parallel with the examination of the material evidence, it is advisable for the defence lawyer to file a petition for the examination of the procedural acts, which formalised the seizure and adhesion of material evidence to the criminal proceedings, in the court session. Such documents are as follows:

- 1) the determination of the investigating judge on the application of an appropriate measure to ensure criminal proceedings or the granting of permission to perform the corresponding (intelligence) action investigative mandatory list of things and documents in respect of which a direct permission for search and seizure is granted;
- 2) the protocol of the investigative (intelligence) or other procedural action, as a result of which material evidence was discovered and seized;
- protocol of examination of material evidence; 3)
- 4) attachments to the said protocols, including drawings, diagrams, photographic, or video recordings, etc.;

a document confirming the transfer for storage, 5) sale, technological processing, or destruction of material evidence.

These procedural documents are examined by the defender for their compliance with the requirements of the legislation, and their form and internal content are analysed, discrepancies and contradictions in the presentation of certain circumstances and details are identified. Particular attention should be paid to verifying the compliance of the results of the examination of material evidence recorded in the protocol of procedural action with its actual properties and qualities, compliance with the requirements for the proper method of packaging and sealing of material evidence, ensuring that it is impossible to replace or change the contents without violating its integrity, as well as the safety of the seized (received) material evidence from damage, corruption, deterioration, or loss of properties due to which they have evidentiary value. Everything that is important for the rebuttal must be immediately addressed by the defence lawyer to the court so as to doubt the proof of the defendant's guilt at the expense of material evidence provided by the prosecution. A significant factor in increasing the effectiveness of the examination of material evidence in the interests of the rebuttal often becomes the active involvement of the accused, witnesses, an expert, and a specialist in this process. These participants in the judicial proceedings can be guestioned about the material evidence under examination, their properties, and attributes. Such actions allow to identify the mechanism of development of material evidence, eliminate contradictions, and reveal new facts. These persons can point out the connection between certain properties of a material object and other evidence, address the authenticity or substitution of material evidence, variability of attributes and properties of material evidence in the process of storage, other circumstances related to the study of material evidence in court (damage to packaging, seal integrity, etc.) (Seisenbayeva et al. 2020).

After clarifying the circumstances of the criminal proceedings and verifying them with evidence, the court, by its ruling, proceeds to judicial pleadings. Judicial pleadings in procedural science are considered as an independent part of the trial of criminal proceedings, the basis of which is the speeches of the participants in the trial, where they assess the actions of the accused, analyse the evidence investigated in the court, give arguments on their belonging and admissibility, express conclusions regarding the proof or absence of proof of guilt or the innocence of the accused, on the qualification of actions, the measure of punishment, the resolution of a civil claim and other issues that the court must resolve when sentencing. The legislation determines the sequence of speeches of the participants in the trial in the judicial debate, which reflects the logic of building a competitive trial and cannot be changed under any circumstances. For the defence lawyer, as well as for the prosecutor, participation in the court hearings is mandatory: refusal to speak would mean an automatic refusal to perform procedural function at this stage of the trial. The judicial pleadings transfer the procedural discussion of the parties regarding the proof of the guilt of the accused into the final, open and, as a rule, the most acute phase. Each of the parties sees its task in the implementation of a speech influence on the court to persuade it of the correctness of its position in the context of the need to implement the tasks of criminal proceedings. Admittedly, the development of the inner convictions of judges to a large extent takes place during the trial, when all its participants try to prove to the court the conformity of their position to the evidence examined in the trial. In theoretical and practical aspects, the question of the degree of significance of the speech for the defence for achieving the purpose of the rebuttal in court proceedings is relevant. According to the results of the survey of lawyers, 46% of the respondents believe that only in some cases the speech for the defence can affect the final result of the defence lawyer's efforts to refute the accusation; 38% of respondents are convinced that the speech for the defence has a significant impact on the results of this activity; 16% consider their participation in court hearings as nothing more than a procedural formality that does not affect the effectiveness of their rebuttal activities (Jaksybekova et al. 2018).

The cited empirical data indicate that some lawyers underestimate the influence of speech on judicial conviction. The part of the legal community that is confident in the strength of the speech for the defence turns out to be the most successful in practice. Defenders who underestimate the influence of their speech in judicial debate, therefore, miss the opportunity to convincingly influence the court and, as a result, lost trials. Uncertainty in the strength of the spoken language in the process of judicial proof gives rise to inability and unwillingness to speak clearly, understandably, competently, in a well-argued manner, and most importantly – convincingly. Speaking well in court means saying what is necessary to win over the composition of the court at this time. Admittedly, the

role of the defence lawyer's speech in court hearings on the final decision of criminal proceedings in the interests of the client cannot be determined without consideration of the previous activities of the defence attorney to refute suspicions and accusations. The speech for the defence concisely reflects the results of the hard and painstaking work of the defence lawyer, performed at the earlier stages of criminal proceedings. Figuratively speaking, one cannot achieve an acquittal by mere speech for the defence. However, on the other hand, the unconvincing performance of the defence lawyer in the court hearings can nullify all previous efforts aimed at acquitting the client. It is known that not always the conscientious and professional approach of the defence lawyer to the preparation and delivery of the speech for the defence in court debates gives a positive result in the form of an acquittal. For various reasons, the arguments and contentions put forward by the defence lawyer in their speech against the accusation may remain out of sight or even be openly ignored when making a court decision on criminal proceedings. To avoid levelling significance of the speech for the defence in upholding the position of the defence, it seems expedient to consolidate in the criminal procedural legislation the rule according to which, at the request of the participant in the judicial debate, the written text of their speech should be attached to the materials of the criminal case. The textual consolidation of the speech for the defence in the materials of criminal proceedings remains relevant in the court proceedings for revising the decision, which, in the opinion of the defence, was made without consideration of the arguments set out in the said speech. Such approach will increase the procedural significance of speaking in court hearings, and, consequently, will improve the confidence of defenders that their speech is an important tool for achieving the objectives of the defence, and is not just a formality. Legal science has developed a relatively well-established and generally accepted vision of the structure and content of the speech for the defence. It is hardly possible to find an exhaustive, universal answer about the features of the content and structure of the speech for the defence. The speech planstructure is a purely creative process of every defence lawyer. The assertion of certain authors on the existence of mandatory elements of the speech for the defence is based on the desire to introduce certain standards in the work of a defence lawyer, but not on undeniable arguments and rules of formal logic, psychology.

That is why it is rather difficult to determine the typical structure and universal semantic content of the speech for the defence aimed at the rebuttal. In this case, an acceptable typification option can be the selection, at least in the most generalised form, of the three main semantic components of the defence lawyer's speech in the judicial debate: an introductory part, an informative part, and conclusions. Each of these parts has its own tasks. Thus, the main task of the introduction is to establish communicative contact with the judicial audience. In the informative part, the defender gradually reveals the essence of value judgments, evidence, and suggestions, thereby refuting the charge brought against the client. In conclusion, the defence lawyer summarises the facts testifying in favour of the client, and expresses reasoned conclusions about the latter's innocence, which should motivate the court to make the expected decision. It is noteworthy that the semantic content of the speech for the defence, as well as the result that the defender deduces in their speech during the judicial debates, must fully correspond to the legal position declared by the defence. If the latter is based on the denial of the quilt of the accused in the commission of a criminal offense, then the speech for the defence should focus on refuting the arguments of the prosecution and persuading the court of the defence's position, and the conclusion should be reflect a clear and unambiguous motion for an acquittal. That is, it is impossible to simultaneously challenge the guilt of the client, refute the charges brought against them and raise the issue of changing the criminal legal qualification, analyse the reasons and conditions that led to the commission of the crime, point out the circumstances mitigating the liability of the client, raise the issue of the probable measure of the imposed punishment. The position of those authors who admit the possibility of an alternative in the speech for the defence, the essence of which is that the defender, with the use of the appropriate methods of constructing a speech, may question the legal qualifications of the deed or skilfully use in their speech an analysis of the circumstances mitigating responsibility, but in the end - to ask the court for acquittal. This approach is a typical logical error, which is called substitution of the thesis and lies in the fact that the speaker, having put forward one position, actually substantiates another. The admission of such a mistake by the defender in their speech can be regarded by the court as the inability of the defence to argue the stated thesis about the innocence of the accused and the need to justify them.

CONCLUSION

The competitive structure of the trial creates conditions for the full assistance of the defence lawyer to the independent knowledge of the circumstances of the criminal proceeding by the court, without relying on the conclusions of the pre-trial investigation. However, in some aspects of the implementation of the adversarial principle in criminal proceedings, the Ukrainian legislators have expressed a certain inconsistency, which directly affects the effectiveness of the procedural activities of the defender to refute the charge. The trial begins with the announcement of a summary or (if there is a corresponding request from the participants in the trial) the full text of the indictment by the prosecutor. These actions of the prosecutor, in fact, are a fairly detailed statement of the position of the prosecution, since the announcement of the indictment provides for coverage of the factual circumstances of the criminal offence, which the prosecutor considers established, the legal qualification of the criminal offence and the wording of the indictment.

REFERENCES

- Ashikbayeva, Asem, Nazira Gumar, and Gaukhar Zhanibekova. 2018. "Setting Up Individual Indicators of Economic Efficiency for Environmental Protection in Oil Refineries". Espacios 39(18): 1-9.
- Bakashbayev, Azatbek, Aliya Nurgaliyeva, Nazira Gumar, Zhanat Khamidullina, and Markhabat Saduakassova. 2020. "Examining the Trends in Bank Deposits Through Internal and External Factors Based on the Supply Chain Strategies: A Primary and Secondary Data Survey". International Journal of Supply Chain Management 9(2): 526-536.
- Bielen, Samantha and Wim Marneffe. 2018. "Testing the Lawyerinduced Litigation Hypothesis in Europe". Applied Economics 50(16): 1837-1851. https://doi.org/10.1080/00036846.2017.1374544
- Ermilova, Maria. 2019. "Introduction of Mechanisms and Instruments of Foreign Systems of Housing Market Financing in Russian Practice". Test Engineering and Management 81: 4286-4297.
- Ivanytskyy, Sergiy. 2017. Theoretical Foundations of the Organization of Advocacy in Ukraine: Principles and System. Kyiv: Interservis.
- Jaksybekova, Galiya, Aliya Nurgaliyeva, Azhar Nurmagambetova, Nazira Gumar, and Altynai Asanova. 2018. "Liquidity Risk Evaluation". Espacios 39(16): 1-18.
- Kogamov, Akbar. 2013. "Juridical Personality of a Defense Lawyer in the Context of International Contractual and Other Obligations of the Republic of Kazakhstan in Criminal Practice". World Applied Sciences Journal 26(8): 1094-1099.
- Langer, Maximo. 2007. "Revolution in Latin American Criminal Procedure: Diffusion of Legal Ideas from the Periphery". American Journal of Comparative Law 55(4): 617-676. https://doi.org/10.1093/ajcl/55.4.617
- Bin and Ni. He. 2014. "Criminal Defense in Chinese Courtrooms: An Empirical Inquiry". International Journal of Offender Therapy and Comparative Criminology 58(10): 1230-1252

https://doi.org/10.1177/0306624X13493077

- Liang, Bin, Ni He and Hong Lu. 2014. "The Deep Divide in China's Criminal Justice System: Contrasting Perceptions of Lawyers and the Iron Triangle". Crime, Law and Social Change 62(5): 585-601.
 - https://doi.org/10.1007/s10611-014-9545-3
- Liu, Sida and Terence Halliday. 2009. "Recursivity in Legal Change: Lawyers and Reforms of China's Criminal Procedure Law". Law and Social Inquiry 34(4): 911-950. https://doi.org/10.1111/j.1747-4469.2009.01169.x
- Seisenbayeva, Aizada, Nazira Gumar, Munira Imramziyeva, Sanimkul Lapbayeva, and Nurgul Shmanova. 2020. "Towards Sustainable Development Via Enhancing Viability
- of Small Businesses Through Lending: A Case Study". Journal of Security and Sustainability Issues 9(3): 943-950. https://doi.org/10.9770/jssi.2020.9.3(19)
- Seroussi, Julien. 2018. "How Do International Lawyers Handle Facts? The Role of Folk Sociological Theories at the International Criminal Court". British Journal of Sociology 69(4): 962-983. https://doi.org/10.1111/1468-4446.12604
- Shytov, Alexander and Peter Duff. 2019. "Truth and Procedural Fairness in Chinese Criminal Procedure Law". International Journal of Evidence and Proof 23(3): 299-315. https://doi.org/10.1177/1365712719830704

Received on 16-10-2020 Accepted on 16-11-2020 Published on 07-12-2020

DOI: https://doi.org/10.6000/1929-4409.2020.09.167

© 2020 Ivanytskyy et al.; Licensee Lifescience Global.

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (http://creativecommons.org/licenses/by-nc/3.0/) which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.