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**PRESS RELEASE**

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**CAN READING RECONSTRUCT MEMORIES OF  
INTIMATE PARTNER VIOLENCE?**

Gender violence amongst youth is an increasing phenomenon thought to be partly caused by 'learned attraction.' New research in Spain<sup>1</sup> and the UK<sup>2</sup> finds that the simple experience of reading specific texts designed to dismantle attraction toward a type of masculinity characterised by aggressiveness and disdain, can significantly reconstruct a victim's memory of relationship violence.

**Dr Sandra Racionero-Plaza**, speaking today (3 July) in Copenhagen, described striking results from studies examining the role and malleability of autobiographical memory, and the relevance of language in long-term emotional memory processes which may support gender violence.

The World Health Organization (WHO) estimates that internationally, 30% of women aged 15-19 have been victims of gender violence. Specifically, Intimate Partner Violence (IPV) - physical, sexual, or psychological harm by a current or former partner - is considered a significant yet preventable public health problem affecting millions across societies. These attraction patterns are learned through experience. "Many films, television shows, advertisements, literature and other media socialise values connected to abuse, aggression, power relations, and suffering with attractiveness," Dr Racionero-Plaza told delegates at the FENS Forum of Neuroscience. "This socialisation process is reaching a rising number of adolescents and young people, a population increasingly becoming victims of gender violence in Europe and worldwide."

It is important to identify ways to break that link including interactions and social experiences, and generate new learning processes, where attraction is connected instead to equality, dialogue, and respect.

One crucial element in dismantling this attraction is by focusing on and changing autobiographical memories of violent episodes. Autobiographical memory, unlike other types of memory, is reconstructive and can be modified through experience. "What you learn becomes your memory. So you will then process information in a particular way, and it is likely that you make certain decisions going forward based on those autobiographical memories with their associated emotions. If you can't say 'that experience was bad and revolting for me', it becomes hard to understand those memories as well as current intimate feelings and decisions in a competent emotional way."

But little research has been conducted to examine how specially-designed social experiences or learning processes, such as dialogue or reading, might affect or change autobiographical memory, particularly emotional memories.

It's crucial that many young women's autobiographical memories of violent sexual-affective relationships include elements of attraction to the man they had the relationship with and to certain violent episodes in the relationship. Given that autobiographical memory serves directive functions, "the more these memories are associated with desire, the more likely it is that those women do not break the learned association between attraction and violence, and make

intimate decisions accordingly. This increases the likelihood they choose a similar relationship, or do not find the same degree of desire in a relationship grounded in equality and respect.” said Dr Racionero-Plaza. This is a first order human development problem to be tackled scientifically.

So using cognitive and affective neuroscience to explore the topic, Dr Racionero-Plaza at Universidad Loyola Andalucía, Dr Puigvert from the University of Cambridge Institute of Criminology, and Dr Ugalde from Universidad del País Vasco, and Carmen Martín from Loyola Andalucía considered how the social experience of reading a scientific text on the topic of love could reconstruct memories of violent relationships supporting self-awareness and rejection.

Dr Racionero-Plaza and an interdisciplinary research team including neuroscientists, cognitive psychologists, sociologists and criminologists, conducted a study of 63 young women, average age 19 years old, at university who had experienced IPV. Over ten days one group of 32 women read selected chapters of *Radical Love: A Revolution for the 21st Century*, a scientific book on intimate relationships written using ‘language of desire’ which empties violence of attractiveness.

The researchers collected memory reports before and after reading, and analysed the level of attraction, positive or negative emotion induced by recall, and critical or somewhat critical memory about the relationship. Post-test focus groups were conducted to explore social impact further.

The study revealed changes in the experimental group when the women revisited their autobiographical memories of the violent relationships after the reading. Specifically, after the intervention, they showed an increase in negative emotions and a decrease in high attraction and positive emotion in recalling their relationship. They were also able to reconstruct memories with more critical detail than before the reading, including episodic details of disdain, tension, and humiliation rather than attractiveness, details that were minimal in the first version of the memory reports.

This suggests they had modified their autobiographical memories of these relationships, indicating greater consciousness about how their relationship actually was. “They broke their previous ideas on those negative relationships, transformed into a self-awareness that they should not have been treated like that, and gained greater consciousness about the realities of the violent relationship.” Many women then redirected themselves toward healthier behaviour, and some decided leave their current violent relationship. The opposite occurred amongst the 31 women in the control group who did not read. Additionally, the reading made participants in the experimental group to share their memories with others, with a significant number of young women who before the reading it was a year ago the last time they had shared their memories to be the day before the measurements the last time when they had talked about those memories.

Dr Racionero-Plaza feels that this research suggests that the brain can change through experience, and rewire itself in relation to memory reconstruction under certain experiences and stimuli. Specific interventions like reading can support emotional reconstruction of violent memories by decreasing happiness, and increasing feelings of concern, surprise, and anger when the memory is recalled.

This area of research indicates clear potential social impact. It provides evidence that it is possible to transform and reconstruct autobiographical memories of violent sexual-affective relationships, by engaging in certain social experiences, such as reading a book with certain characteristics, to support better decisions in intimate life in females who are victims of IPV. This very simple type of intervention offers a powerful way to prevent and respond to the widespread problem of gender violence amongst teenagers and youth.

In future, Dr Racionero-Plaza and colleagues will utilise EEG, EMG, ECG and neuroimaging to examine how simple social experiences - such as reading, or dialogue - might actually rewire the brain to welcome violence-free intimate relationships.

**END**

**Abstract Reference** 3331-F01a

**Poster** Reading, Recalling and Reconstructing: Examining how the Social Experience of Scientific Reading about Love Supports the Emotional Reconstruction of Autobiographical Memories of Violent Sexual-Affective Relationships

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**NOTES TO EDITORS**

**The 10th FENS Forum of Neuroscience**, the largest basic neuroscience meeting in Europe, organised by FENS and hosted by the Danish Society for Neuroscience will attract an estimated 6,000 international delegates. FENS mission is to advance research and education in neuroscience within and outside Europe, to facilitate interaction and coordination between its members. FENS represents 43 national and single discipline neuroscience societies with about 24,000 member scientists from 33 European countries. <http://www.fens.org/>

**Further Reading**

Reconstructing Autobiographical Memories and Crafting a New Self Through Dialogic Literary Gatherings. Racionero-Plaza, S. *Qualitative Inquiry* 2015 21(10). 920-926.