#### ORIGINAL ARTICLE



# The Words of Violence: Autobiographical Narratives of Abused Women

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**Abstract** Personal narratives tell the stories of people's lives as well as provide insight into the meaning of those experiences. These narratives both reflect and are influenced by the relationships within which an individual is embedded. In this study, autobiographical narratives for two groups of women were compared: women who had experienced habitual gender-based domestic violence in their couple relationships and women who had not. The language of narratives was analyzed by LIWC (Language Inquiry and Word Count procedure). Results showed that the language and structure of narratives by women with a history of domestic violence indicated greater stress and trauma, more incoherent space-time organization, and poorer relationship quality. Women who experienced violence wrote longer narratives that contained proportionately more negative emotion words and more references to cognitions and physical/body issues, and indicated more disorganized structure by means of incoherent use of verbal tense, more impoverished use of connectives, and greater use of negative sentence syntax and discrepancy words. They also included proportionately more pronoun references to 'I', 'You',' and 'He', indicating self vs. partner conflictual relationships. However, women who had experienced relationship violence for longer decreased their references to

the emotions of fear and anxiety, suggesting adaptation to violence over time.

**Keywords** Couple violence · Autobiographical memories · Narratives · Romantic relationships · Gender-based violence Intimate violence · Violence against women · Interpersonal violence

Gender-based violence against women can be defined as any act of gender-based violence that occurs as physical, sexual, psychological and/or economic manifestations perpetrated by a man and that causes suffering exclusively to a woman (Dutton et al. 2011). The range of perpetrators is large, from intimate partners to neighbors, friends, relatives, colleagues, and strangers. However, family context is often the arena in which men exert the majority of violence against women and girls (Carpenter and Stacks 2009; Spitzberg and Cupach 2007). Violence can also occur in same-sex female relationships; however, this study focuses only on violence within cross-gender relationships with males as the perpetrators.

Violence committed by men within the family context is termed domestic violence. It is perpetrated by a man who lives with the victimized woman and in 70 % of cases is romantically involved with her (World Health Organization 2002). This specific form of violence is characterized by behaviors that are repeated cyclically over time in an escalation of severity of acts that constitute what has been called "the cycle of violence" (Dutton et al. 2011). In many cases, the cycle of domestic violence is repeated across generations; women whose mothers were battered by their husbands are twice as likely to experience violence in their own lives as women whose mothers were not beaten by their husbands (International Institute for Population Sciences and Macro International 2007).

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Domestic violence is not confined to a specific socioeconomic or educational level, geographical boundary, religion or society (Garcia-Moreno et al. 2006). However, it is undeniable that violence against women is frequently related to patriarchal cultural values, according to which men are assumed to be superior to women. As well, abusers often have lower educational level and socioeconomic status, and in these cases, gender violence is often justified by abusers as a "normal" form of social sanction (Jewkes 2002; Kaira and Bhugra 2013).

Collected data on domestic violence are alarming: a United Nation report (Hausmann et al. 2009) estimated that up to 70 % of women experience some kind of violence in their lives. In Italy, six million women, i.e., almost a third of the women aged between 16 and 70 years (31.9 %) have been subjected to or are currently subjected to domestic violence in physical or sexual forms (Instituto Nazionale di Statistica 2007).

# **Domestic Violence and Health Outcomes**

There is growing evidence that violence against women not only constitutes a grave violation of women's human rights, but also has severe and long-term consequences on women's physical and psychological well-being. Thus, gender violence is now considered a worldwide public health issue (World Health Organization 2013). The consequences of violence on the health and psychophysical well-being of victims are extremely serious. Epidemiological and clinical studies have consistently shown that abuse and violence behaviors by intimate partners are significantly associated with a broad array of women's negative health outcomes, including gynecological disorders, adverse pregnancy outcomes, irritable bowel syndrome, gastrointestinal disorders, and various chronic-pain syndromes (Campbell et al. 2002; Vos et al. 2006). Consequently, abused women have more days in bed than do women who have not been abused (Campbell et al. 2002; Eberhard-Gran et al. 2007). Moreover, physical and sexual violence have also been associated with psychological and psychiatric problems, including depression, anxiety, phobias, suicidality, and substance abuse (Ellsberg et al. 2008).

Over time, women's tolerance threshold for violence often increases, and this is associated with progressive emotional impoverishment and severe mental disorders such as Post-Traumatic Stress Disorder or Major Depressive Disorder, making women increasingly unable to move away from abusing partners (Dutton et al. 2011; Russel 2010). The progressive narrowing of awareness linked to being exposed to continuous violence leads to an increasing inability to face reality and is reflected in the increasing difficulty of recognizing warning indices of violence, leading in turn to further experiences of victimization (DePrince 2005; Hulette et al. 2011).

This often results in victims expressing attitudes and behaviors of self-blame and learned helplessness, as well as displaying sleep disorders and obsessive-compulsive tendencies (Haj-Yahia and de Zoysa 2008; Sheikh and Janoff-Bulman 2010). To cope with the stress of domestic abuse, women often develop forms of dissociation of self that, over time, can become an integral part of their own identity and that can reappears whenever they face new relationships in situations that recall the original stress (DePrince 2005; Freyd et al. 2001).

# **Autobiographical Memories and Narratives**

An extensive literature highlights the existence of significant interactions between interpersonal relationships and memory. In particular, autobiographical memories are often based on social experiences and they constitute the instrument par excellence that individuals use in everyday social relationships in order to build a sense of their own identity (Smorti 1998, 2011). Furthermore, as Conway (2005) argued, memory and self are deeply interconnected in a circular relationship: the self organizes the narratives of autobiographical memories and is in turn transformed to define a "narrative identity" (McAdams 2006), or a "self-narrative" (Fivush and Haden 2003). This autobiographical self is narrated by the records of organized images of the unique history of the individual (Fonagy et al. 2002). In other words, "memory to some degree [is] a mirror that may reflect a person's identity" (Peterson et al. 2010: p. 602).

Memory narratives not only state the existence of specific remembered events, they also communicate the meaning of those recalled events to the narrator (Fivush 2011; Labov and Waletzky 1967/1997). Thus, linguistic detail about people, mental states and emotions, causality, temporal coherence, and so on, through which the meaning of events is expressed, is important (Nelson and Fivush 2004; Smorti 2011). The narrative is also a frame through which events that depart from coherent temporal pattern can be reordered as well as made understandable and communicable (Labov and Waletzky 1967/1997). The language of autobiographical narratives therefore serves as an important mediator between identity and autobiographical memories, and the language by which individuals express their memories can provide important information about the speaker's psychological characteristics and on the qualitative features of their social relations (McLean et al. 2007; Pennebaker et al. 2001; Tani et al. 2010, 2015). As Smorti et al. (2009) stated: "autobiographical memory and autobiographical narration are therefore two mirrors through which people reflect on their lives. [...] The continuous - even though partial - flow between memory and narration means these mirrors reciprocally reflect each other" (p.148).



The aim of the current research is to investigate relationships between the two areas discussed above, domestic violence and autobiographical memory. More specifically, the main purpose of the present study is to explore the links between the language of memory, by means of narratives, and the specific features of couple experiences in two groups of women: those who have habitually experienced domestic violence within their couple relationship and those who have not.

# The Language of Memory: Narratives of Traumatic Experience

As we argued before, memories both reflect and are influenced by the relationships within which an individual is embedded. Thus, we can expect that the daily, repeated traumatic experiences associated with couple violence might affect not only the autobiographical memories of abused women, but also the narratives they tell about those memories.

Prior research that explored the linguistic characteristics of narratives of traumatic experience has found that traumatic memories have specific characteristics that reflect the problem of processing and making sense of lived experiences. In particular, the spatial, temporal, and causal organization of these narratives tends to be altered, with many narratives becoming more incoherent, fragmented, and disorganized (Bohanek et al. 2005). These linguistic characteristics are associated with significant mental distress in people who have lived through traumatic experiences (Ireland et al. 2011). Creating a coherent space-time organization in a narrative enables emotions to become integrated with events, allowing the person to constructively work through traumatic experiences (Ireland et al. 2011; Pasupathi 2007), and thus supports the psychological development of the person (Chung and Pennebaker 2008; Cohen et al. 2009). As a result, the congruent use of tenses at the lexical level constitutes an indicator of a good integration of the experience with an appropriate sequential pattern of events. In other words, better temporal organization of a narrative is associated with a better health outcome (Lorenz and Meston 2012).

In addition, narratives of memories regarding traumatic and negative episodes, such as violent experiences, tend to be characterized by greater attention to internal emotional and cognitive scenarios rather than focusing on descriptions of objects or people; the latter being the most typical elements of narratives about positive events (Pennebaker 1997). In particular, linguistic analyses of memories by survivors of sexual violence have shown that the narratives of these emotional experiences were significantly longer and had more words than narratives that were, instead, devoted to action (Alvarez-Conrad et al. 2001). Prior research has also assessed the emotion words that are used in memory narratives to

describe the emotions experienced by the narrator as well as others during the narrated event. This research has shown that emotion words reflect the overall emotional tone of the recalled experiences, whether explicitly positive or negative (Bohanek et al. 2005; McAdams et al. 2004). They also are effective indicators of the emotional tone of social interactions, both with reference to parent-child relations (Fivush et al. 2008), friendships (Tani et al. 2015), and romantic relationships (Slatcher and Pennebaker 2006).

Another linguistic property that has been studied in relation to qualitative aspects of traumatic and violent relationships is pronoun use. In particular, with regard to couple relationships, it was noted that proportionately greater use of 'I' has been found to be associated with lower marital satisfaction, poorer couple relationship quality, and low involvement in dyadic communicative interaction (Sillars et al. 1997). Some researchers have concluded that proportionately greater use of 'We' and lesser use of 'I' seem to be linguistic indicators of higher quality and greater stability of a couple's relationship (Williams-Baucom et al. 2010). Similarly, the use of the second person singular 'You' is typical of low-quality relational contexts, characterized by an emotional involvement based on anger and conflict (Tausczik and Pennebaker 2010), both within couple relationships (Simmons et al. 2008) as well as in other close relationships such as friendships (Smorti et al., The language of memory: narrating memories of parents and friends, unpublished).

### **The Current Study**

The majority of prior research on language characteristics of autobiographical memories focused on overall evaluation of the properties of narratives about traumatic experiences, considering each narrative as a whole (such as overall assessments of emotion or coherence). Until now, very few studies have analyzed the specific characteristics of language in autobiographical narratives of women who have lived with repeated traumatic experience of domestic violence. The present study will begin to fill this void in the literature. In particular, the current investigation aims to analyze the lexical and stylistic characteristics of autobiographical memories related to their couple relationships by women who have versus have not habitually experienced domestic violence.

Verifying that specific linguistic characteristics differentiate the memory narratives of women with versus without violence in their relationship experiences would give additional support for the notion that the language by which individuals express their memories provides important information on the qualitative features of their social relations (Tani et al. 2010, 2015). Moreover, understanding these linguistic differences could have implications for promoting community awareness as well as professional training for practitioners who work with the reports of battered women. The ability to identify



specific linguistic markers that characterize narratives of abused women can help professionals listen to the women in a more informed way and understand not only what women say, but also additional aspects of meaning that are conveyed by the mode of expressing their experiences. Finally, knowing about linguistic markers and characteristics of abused women's autobiographical narratives, and monitoring changes in these markers across time, could assist professionals in evaluating the outcomes of their interventions.

**Hypotheses** We expected there to be significant differences between the two groups of narratives. In particular, we hypothesized that the narratives of women who have habitually experienced domestic violence compared with those of women who have not experienced violence within their couple relationship would be significantly longer, i.e., have a greater number of words (Alvarez-Conrad et al. 2001). We also expected differences in the ratios of emotion words to all words between the two groups of women, and that the valence of these emotion words would differ. Specifically, we predicted that narratives of women who are victims of violence would have more negative emotion words because prior research has found that the number and emotional valence of emotion words are related to relationship quality, at least for friendships (Tani et al. 2015). We also predict that there would be more negative emotion words because violent couple relationships are more likely to be conflictual and affectively negative and include more intense anger, anxiety and fear.

Moreover, we predicted organizational or structural differences between the narratives of abused and non-abused women. Since one of the characteristics of the narratives of traumatic memories is an inconsistent temporal organization (Lorenz and Meston 2012), we expected that this would be reflected by a more incoherent use of verbal tenses in narratives of abused women than in those of non-abused ones. In terms of words denoting connectives, these typically are linguistic markers of spatial, temporal, and causal organization, and since narratives of trauma tend to be more disorganized relative to these features (Bohanek et al. 2005), we expected the narratives of abused women to be more impoverished in connective use. In addition, because negative sentence constructions and discrepancy words may indicate a mismatch between what was anticipated and what actually occurred, they may suggest violations of expected event organization, i.e., less predictable experience, which we thought may be more likely in the lives, as well as the narratives, of abused women.

We also expected that the pattern of pronoun use that has been shown to reflect important components of narratives would be different in the two groups. In particular, as the literature assessing autobiographical memories on couple relationships has shown, first person singular and plural personal pronouns have been found to differ, reflecting different types of relations: greater use of 'I' reflects less intimate and more hierarchical and conflictual relationships, while greater use of 'We' reflects closer, affective and more supportive relationships (Sillars et al. 1997; Williams-Baucom et al. 2010). Therefore, we hypothesize a greater use of 'I' in narratives of women who are victims of violence, and greater use of 'We' in narratives of women who are not victims of violence. Since greater use of the second person pronoun 'You' has been shown to be associated with lower quality relational contexts that are characterized by more anger and conflict, one may expect to find greater relative use of 'You' in the narratives of women experiencing relationship violence. However, the current task requests women to recount a past episode of their lives that was co-experienced with their partner. Thus, unless the women were directly quoting past speech, the third person singular pronoun 'He' is likely to have a similar relational meaning to 'You'. It indicates a relationship of 'I' vs. 'He' in the recounted event, rather than a joint 'We'. Thus, we hypothesize a greater use of the third person pronoun 'He' in the narratives of the abused women. However, we do not expect a parallel increase in the use of the third person plural pronoun 'They', since 'They' indicates a group of at least two other individuals.

In terms of words denoting cognitions, narratives about negative episodes are characterized by greater attention to cognitive scenarios, so we expect there to be more words denoting cognitions in the narratives of the women experiencing violence. Finally, women who habitually experience violence in their lives have been shown to suffer substantial negative health consequences; we therefore expected that the narratives of abused women would have more references to physical body issues.

We also investigated whether the narratives of the two groups of women differed in terms of their references to other family members. Family members may be involved in domestic violence in some way, especially in terms of witnessing or being aware of it, and differences in the inclusion of other family in their narratives may reflect different patterns of family interaction. However, this latter aspect of the study is strictly exploratory.

We had a second objective as well: to see whether the length of abuse influences the memory narratives that are produced by women who are victims of relationship violence. All of the victimized women had been in a violent relationship for multiple years and thus the present study cannot address issues related to very short-term abuse versus long-term abuse. Yet, there was still a considerable range of years of abuse (between 2 and 30 years), and our research is exploratory in terms of how length of abuse may affect narrative characteristics. Because being the victim of violence constitutes a traumatic experience, the length of abuse may increase the magnitude of trauma that is experienced by women. In accordance with the literature on the narratives of the traumatic experience



previously discussed, we expected that women who have experienced violence for a longer period of time would produce narratives that were significantly longer, more incoherent, fragmented and disorganized, as well as more impoverished in connective use. We also expected that the emotional tone of the recalled experiences would be more negative. Finally, we expected that narratives written by women who experienced violence for a longer period of time would be characterized by a greater use of first and third (given the narrative nature of the task) singular person pronouns, since such usage patterns have been found to reflect less intimate and more hierarchical and conflictual relationships.

#### Method

# **Participants**

The sample is composed of 150 women divided into two groups: (1) A clinical group composed of 74 women  $(M_{\text{age}} = 38.1 \text{ years}, SD = 8.6 \text{ years}, \text{ age range: } 22-62 \text{ years}),$ who have habitually experienced domestic violence within their couple relationship. These women were recruited from three anti-violence centers in Tuscany, Italy. (2) The other group was a normative convenience sample composed of 76 women ( $M_{\text{age}} = 36.2 \text{ years}$ , SD = 8.9 years, age range: 23– 61 years) who did not experience couple violence. A researcher visited the district council office of the city of Florence which was located near the university. The council carries out a variety of administrative activities and is frequented by a large number of people every day. The researcher approached women and invited them to participate in the study. The final sample of women who constituted the normative sample were chosen from the pool because of similarity in social and personal characteristics with the women in the clinical group.

The average duration of couple relationships is 11.4 years (SD=9.8) for women experiencing domestic violence and 13.1 years (SD=8.6) for non-abused ones. The duration of violence ranges from 2 to 32 years (mean = 10.1 years; SD=8.4). Education and employment characteristics of the two samples of women and their partners are found in Table 1. In terms of children, 61.6 % of women experiencing violence and 59.6 % of the normative sample women have children. None of the women of either sample were undergoing psychotherapy at the time of data collection.

# **Procedure**

All participants were first requested to fill out a card with their own and their partner's socio-registry data (age, educational level, and occupational status) and information about their couple relationships (length in years of relationship, whether or not they had experienced violence within their relationship, and if so, what type and for how long). In accordance with methodology already used in previous research (Peterson et al. 2010; Tani et al. 2015), participants were then requested to think about the history of their couple relationship, identify an event that best describes the quality or characteristics of their relationship with their partner, and to describe it (in writing) in detail. They were given 15 min to do this narrative task (timed by the researcher). This detailed memory task allows one to assess the narrative properties of their most significant memory about relationships with their partners.

All women in the clinical group were asked to complete the narrative task during their first meeting with the operator of an anti-violence center. In contrast, women in the control group completed their narrative task in a laboratory at the University. The research was conducted in accordance with the guidelines for the ethical treatment of human participants of the American Psychological Association. Participants provided their individual consent and could withdraw from participation at any time.

#### **Data Coding**

All narratives were analyzed using the Italian version of the Language Inquiry and Word Count procedure (LIWC, Pennebaker et al. 2001), created by Smorti and colleagues (Smorti et al. 2010). LIWC is the statistical software most commonly used to analyze the lexical features of narratives because it quickly and easily provides an analysis of texts. The LIWC program processes text files one word at a time, matching the base form of words to an extensive dictionary of over 2290 word stems, and provides the percentage of words in several linguistic, emotional, and cognitive categories, regardless of the content of the events that are reported. A frequency count of the total instances of target words from each category is provided, and this count is then divided by the total number of words in the text to control for individual differences in verbosity. Thus, scores reflect a percentage of word matches in each category. Some of the categories are simple language composition features, such as pronouns, prepositions, articles, and so on. The rest of the categories tap word meaning, falling under the broad headings of psychological processes (e.g., positive emotions, negative emotions, and cognitive words), and relativity in time and space (e.g., verb tense, spatial and movement references). LIWC dimensions also reflect language correlates of attentional focus, emotional state, social relationship, thinking style, and individual differences (Tausczik and Pennebaker 2010).

The LIWC dictionary has been demonstrated to be reliable and exhaustive in its counts, categorizing approximately 85 % of specific words used in a wide corpus of narratives and has been utilized by several narrative researchers (e.g., Fivush et al. 2003; Pennebaker et al. 2001; Smith et al. 2005).



Table 1 Education and employment characteristics of women and their partners whose couple relationship either is or is not habitually characterized by domestic violence

Characteristics	Couples with violence $(N = 74)$				Nonviolent couples $(N = 76)$			
	Women		Partners		Women		Partners	
	No.	%	No.	%	No.	%	No.	%
Education								
Elementary school diploma	_	0.0	8	10.8	2	2.6	8	10.5
Middle school diploma	18	24.3	19	26.1	20	26.2	26	34.2
High school diploma	38	51.4	28	37.8	34	44.8	29	38.1
Post-secondary degree	18	24.3	11	15.3	20	26.2	12	16.1
Employment								
Employed	45	60.8	63	85.1	45	59.2	65	85.5
Housewife	18	24.3	_	0.0	20	26.2	_	0.0
Unemployed	6	8.1	8	10.8	6	7.9	8	10.5
Retired	5	6.8	3	4.1	5	6.6	4	4.6

Given the hypotheses of this study, the following categories were examined: (1) Overall word count, this is a frequency count of the number of words; (2) Emotion and feelings, both positive (e.g. 'happy', 'love', 'joy', 'satisfied'), and negative ones (e.g. 'hate,' 'anger', 'fear', 'afraid,' 'sad'); (3) Verbal tenses, with particular regard to present and past tense; (4) Cohesion/syntactical connections, which included causal, temporal, and adversative connections; (5) Negative syntactic constructions (e.g., 'I do not feel ...', 'He did not do ...'); (6) Discrepancies, these included verbal categories such as' 'should', 'would', and 'could', which contrast what actually occurred with an alternative possibility; (7) Personal pronouns (that is, the characters of the story). These distinguished between singular first person ('I'), plural first person ('We'), singular second person ('You'), singular third person ('He' or 'She') and plural third person (Other/s). Both explicit pronouns as well as implicit verbal references to pronouns were coded; (8) Internal cognitive processes that included cognition ('think,' 'believe,' etc.); (9) Physical and body states and grooming; (10) References to other family members. In addition, the length of abuse (in years) experienced by women who habitually lived with domestic violence was tabulated.

# **Data Analysis**

Descriptive statistics were used first in order to show the distribution through means and standard deviations for all of the variables of study. Chi-square tests and t-tests for independent samples were used to verify that the two groups of women did not differ in terms of their own and their partner's socioregistry data. A series of univariate analyses of variance (ANOVAs) were conducted on each category of data by inserting as dependent variables the different dimensions of LIWC, with group (experienced domestic violence vs. did not experience it) as the independent variable. Moreover, to see if

there was a relationship between memory structure and its emotions and feelings, Pearson correlations were calculated between emotions and significant linguistic characteristics of recalled memories. Finally, to see if there was a relationship between the linguistic characteristics of women's narratives and length of abuse, Pearson correlations were calculated for the group of women who had experienced domestic violence.

# **Results**

Preliminary analyses showed that the two groups of women did not differ in terms of age, duration of relationship, education, employment, or number of children. Likewise, their partners did not differ in age, education, or employment. Thus, these factors will not be considered further.

#### **Content of Memories**

Regarding the content of recalled memories, all the women who were subjected to violence wrote about an event in which they were victims of violence, while the women in the normative group reported a wide variety of events, including a description of the first meeting, the wedding day, the birth of a child, having fun with the partner, and so on.

### **Linguistic Characteristics of Narratives**

Means and standard deviations for the total number of words in the memories and the percentages of words that were categorized into the various standard linguistic dimensions analyzed by LIWC are shown in Table 2.

**Overall Word Count** As the table shows, there was a significant difference in total word count between narratives of the



**Table 2** Descriptive statistics for the LIWC variables, and *F* values for ANOVAs comparing narratives of women in the two groups (those experiencing domestic violence and those who do not)

	Experiencing violence		Non-violent relationship				
	M	SD	$\overline{M}$	SD.	F (1149)	p	$\eta 2$
Total words count	391.22	298.35	154.39	45.79	26.51	.001	.15
Feelings and Emotions							
Positive	2.41	.91	5.36	3.27	42.38	.001	.34
Negative	3.18	1.89	1.49	1.21	43.19	.001	.27
Verbal tenses							
Past	5.77	4.22	4.98	2.59	1.91	n.s.	_
Present	6.92	4.32	5.31	2.70	7.39	.01	.05
Connectives	1.64	1.13	2.38	1.14	16.08	.001	.10
Negative syntactic constructions	3.09	1.37	2.02	1.31	23.64	.001	.14
Discrepancies	2.55	1.31	1.17	.95	54.91	.001	.27
Total Pronouns	13.15	3.20	9.98	3.55	33.09	.001	.18
1st person singular "I"	6.37	2.34	3.86	2.22	45.58	.001	.24
1st person plural "We"	.83	.80	1.61	1.61	13.94	.001	.09
2nd person "You"	.12	.41	.01	.06	5.49	.02	.03
3rd person singular "He"	1.12	1.02	.54	.94	13.50	.001	.08
3rd person plural "They"	.46	.47	.87	1.09	8.84	.005	.06
Implicit verbal pronouns							
1st person singular "I"	3.14	1.32	2.17	1.37	19.59	.001	.12
1st person plural "We"	.41	.51	1.51	1.64	30.34	.001	.17
2nd person "You"	.32	.76	.11	.32	5.18	.02	.03
3rd person singular "He"	3.37	1.57	2.53	1.52	11.05	.001	.07
3rd person plural "They"	.52	.65	.35	.55	2.71	n.s.	_
Internal Processes							
Cognition	6.15	2.08	5.34	2.32	5.11	.02	.03
Physical and body issues	3.48	2.49	2.20	2.15	11.27	.001	.07
References to family	1.05	1.07	.16	.37	46.60	.001	.24

two groups: women who habitually experienced domestic violence wrote longer narratives than did those who did not experience such violence,  $(F(1, 149) = 26.51, p < .001, \eta^2 = .15)$ .

**Emotions and Feelings** The overall affective tone of narratives was significantly different between the two groups, depending upon the nature of the couple relationship that women experienced. Specifically, positive emotions and feelings were found to be greater in narratives of women who had not experienced domestic violence,  $(F\ (1149)=42.38,\ p<.001,\ \eta^2=.34)$ , while in the narratives of those women who had experienced violence, there were higher numbers of negative feelings and emotions  $(F\ (1149)=43.19,\ p<.001,\ \eta^2=.27)$ . In particular, women experiencing violence reported less joy  $(1.09\ vs\ 3.07,\ F\ (1149)=45.18,\ p<.001,\ \eta^2=.24)$  and happiness  $(.49\ vs\ .92,\ F\ (1149)=10.93,\ p=.001,\ \eta^2=.07)$  and more fear  $(.52\ vs\ .32,\ F\ (1149)=5.13,\ p<.05,\ \eta^2=.03)$ , sadness  $(1.01\ vs\ .62,\ F\ (1149)=7.96,\ p=.005\ \eta^2=.05)$ , and

anger (1.36 vs .15, F (1149) = 77.34, p < .001,  $\eta^2 = .34$ ) than did women in normative relationships.

**Verbal Tenses** Despite the nature of the task – a memory task – women who habitually experienced violence, compared with those who did not, used a significantly greater percentage of the present tense in their narratives (F (1149) = 7.39, p < .01,  $\eta^2$  = .05), although there was no significant difference in their use of the past tense (F (1149) = 1.91).

**Connectives, Negative Syntactic Constructions, and Discrepancies** In the narratives of women experiencing violence there was also proportionately less frequent use of connectives  $(F(1149) = 16.08, p = .001, \eta^2 = .10)$  than in the narratives of women in non-violent relationships. In addition, there was more frequent use of negative syntax  $(F(1149) = 23.64, p < .001, \eta^2 = .14)$ , and discrepancy words  $(F(1149) = 54.91, p < .001, \eta^2 = .27)$ , in the narratives of women who habitually experienced relationship violence.



**Personal Explicit and Implicit Pronouns** First, we tabulated all explicit and implicit personal pronouns, regardless of type of pronoun. The experience of violence within the couple relationship was significantly associated with the total proportion of explicit personal pronouns used (F(1149) = 33.09,p < .001,  $\eta^2 = .18$ ), with women experiencing violence using more of them. More specifically, in terms of our hypotheses, women experiencing domestic violence, compared with women who did not, used proportionately more 'I' pronouns - both in explicit (F(1149) = 45.58, p < .001,  $\eta^2 = .24$ ) and implicit verbal form  $(F(1149) = 19.59, p < .001, \eta^2 = .124)$ . In contrast, women experiencing couple violence used proportionately fewer references to the plural first person 'We', both in explicit (F (1149) = 13.94, p = .001,  $\eta^2 = .09$ ) and implicit verbal form  $(F(1149) = 30.34, p < .001, \eta^2 = .17)$ . However, women experiencing violence also used proportionately more of the second person 'You'- both in explicit (F(1149) = 5.49, p < .05,  $\eta^2 = .05$ ) and implicit verbal form (F(1149) = 5.18,p < .05,  $\eta^2 = .03$ ), as well as using proportionately more of the third person singular 'He' - both in explicit (F(1149) = 13.50,p < .001,  $\eta^2 = .08$ ) and implicit verbal form (F(1149) = 11.05,p < .001,  $\eta^2 = .07$ ). They also used proportionately more of the third person plural 'They' in explicit form (F(1149) = 8.84,p = .005,  $\eta^2 = .06$ ), but not in implicit verbal form (F(1149) = 2.71).

**Cognitive Processes** These were also different in the two groups of women (F(1149) = 5.114, p < .05,  $\eta^2 = .03$ ), with those experiencing violence referencing proportionately more. In terms of references to physical and body issues, women experiencing violence included proportionately more references to them, (F(1149) = 11.27, p < .001,  $\eta^2 = .07$ ).

**References to Family** Interestingly, battered women made more references to other family members than did women in the normative sample, F(1149) = 46.60, p < .001,  $\eta^2 = .24$ ).

Relationship between Narrative Structure and Length of **Abuse** Finally, to see if there was a relationship between all linguistic characteristics of narratives and length of abuse (only within the group of women who experienced domestic violence), Pearson correlations were calculated. Overall, there was a general tendency for narratives of women who were abused for a longer period of time to use fewer pronouns (r = -.39, p < .01), and in particular the pronoun 'I', both in explicit (r = -.42, p < .001) and implicit verbal form (r = -.23, p < .05), as well the pronoun 'He', both in explicit (r = -.27, p < .05) and implicit verbal form (r = -.29, p < .05)p < .01). They also expressed fewer emotions of anger and fear (r = -.37, p < .01). In contrast, they tended to use more of the pronoun 'They' in implicit verbal form (r = .39, p < .001), and more references to other members of their family (r = .25, p < .05).



The habitual experience of domestic violence is highly stressful in women's lives and has serious negative consequences on a host of outcomes, including emotional and physical health (World Health Organization 2013). The main purpose of the current study was to investigate how domestic violence affects women's linguistic encoding of their experiences. More specifically, we explored how the properties of autobiographical narratives related to recalled memories about their couple relationship were different depending on whether the women either habitually experienced domestic violence within cross-gender couples or did not experience such. We were also interested in seeing if the length of abuse was associated with linguistic characteristics of narratives for those women who had experienced frequent abuse.

We hypothesized that there would be differences in the language of memories (i.e., memory narratives) depending upon the specific quality of relationship with partners, i.e., violent vs. non-violent. In particular, we expected that the narratives of women who experience habitual violence compared with those of women who do not experience violence within their couple relationship would be significantly longer, would include proportionately fewer positive feelings and emotions and more negative ones, would have less coherent and well-organized narratives, would indicate through pronoun usage a less cohesive and more negative relationship, and have a greater focus on internal cognitions and physical body issues. These expectations were all confirmed. Taken together, our results showed that the language of memories is substantially associated with the characteristics (violent vs. non-violent) of the partner who was part of the remembered events.

To begin with, in regard to the content of recalled memories, all of the women who were subjected to violence wrote about an event in which they were the victims of violence, while the women in the normative group were less monothematic and recalled a wide range of events from their couple experiences. The differing content may be partly influenced by the different contexts in which data were collected: at the end of the first meeting within a center for domestic violence for the clinical group, and in a room at a University for the control group. These different situations could potentially prime participants who had experienced domestic violence to focus only on violent aspects of their relationship. However, this is unlikely to be the only explanation. The women were asked to recall a highly salient event, and certainly an event that included domestic violence would be highly salient.

In terms of the linguistic characteristics of their memory narratives, those of women who experienced domestic violence were significantly longer and more detailed. There could be a number of reasons for this. First of all, some laboratory



experiments show that images that evoke intense emotional reactions are remembered better (Bower and Silvers 1998). Moreover, studies on autobiographical memories confirm this link between greater emotional intensity and more accurate memory of the event (Bohanek et al. 2005). Undeniably, domestic violence constitutes a painful, traumatic experience that involves considerable emotional intensity. Longer narratives in terms of number of words are also characteristic of memories of sexual violence by the victimized women in comparison to memories about non-traumatic events (Alvarez-Conrad et al. 2001). However, beyond this, one must also consider the specific nature of domestic violence (which implies continuous, repeated traumatic experiences), and the conditions in which it takes place (within a romantic relationship). All these aspects make domestic violence a highly stressful experience, not least because being battered by your partner violates the woman's expectations transmitted to her by her culture about the canonicity of events and the rules that form the basis of romantic relationships (Fivush 2010). This violation of expected behaviors within a relationship often leads battered women to hide their abuse from others for many years. Consequently, it may be more difficult for a woman to make sense of her experiences and recount them coherently. It is therefore not surprising they need more words to try to give meaning to the experiences of violence that they had. In addition, it is possible that memories of abuse are more intense and vivid than are many other types of memories, and this contributes to increased narrative length. As well, as noted by Fivush (2010), women who have experienced abuse often describe social pressure to be silent about it, and being able to talk about it in the current study is a mechanism for getting's one's voice heard.

The emotion words used in a narrative are potent indicators of the emotional tone of the recalled events (Bohanek et al. 2005; McAdams et al. 2004) as well as the meaning of the described events to the narrator (Fivush 2011). In addition, they provide information about the quality of interpersonal relationships (Tani et al. 2010, 2015), including romantic ones (Slatcher and Pennebaker 2006). Through the differential use of emotion words, the women in the two groups are clearly conveying different personal meanings of the described events as well as qualitative evaluations of their relationships. Women who experience domestic violence describe their memories with more negatively valenced words, and in particular, describe fearfulness, sadness, and anger. That anger is at times directed toward their violent partner and at times directed toward themselves for not being able to modify the aversive situation they are in. In contrast, women in the normative sample describe more feelings of happiness and joy as well as more positively valenced emotion words in general. Overall, the linguistic indices indicate a consistent narrative perspective about the emotional embedding of the events being recalled.

The organization of the memory narratives of women who habitually suffered violence, compared with those of women who did not, also differed. There are several textual indicators attesting less coherence in the narratives of abused women: There is less use of spatial, temporal, and causal connectives, which means that the events are not as well embedded in spatial and temporal contexts, or provide as much causal explanation for event sequences. There is also greater frequency of negative syntactic constructions and linguistic indicators of discrepancies, suggesting mismatches between expected and actual events or behaviors. Moreover, although the women were asked to recall past events that were part of the history of their couple relationship, women who habitually experienced violence more frequently used the present tense of verbs to describe their recalled memories than did the other women. All these linguistic characteristics make their narratives generally more fragmented, disconnected, and disorganized. Thus, our results for battered women support what has been shown by prior studies on autobiographical memories of other types of stressful events (Bohanek et al. 2005; Smorti et al. 2009) – the narratives are less coherent.

Some therapeutic approaches try to improve coherence when individuals narrate about traumatic events. As shown by a number of researchers, a coherent space-time organization in a narrative helps individuals to work through traumatic experiences in constructive ways (Ireland et al. 2011; Pasupathi 2007), which in turn supports healthy psychological development in individuals (Chung and Pennebaker 2008; Cohen et al. 2009; Pennebaker and Chung 2007) as well as better health outcomes (Lorenz and Meston 2012). Thus, the greater textual disorganization of the narratives by women experiencing relationship violence is a disquieting symptom of poorer psychological health.

Another linguistic property that significantly differs in narratives of women who do versus do not experience violence is the use of pronouns. These seem to play a key role in autobiographical memories because they are significantly related to a person's psychological and social world (Tausczik and Pennebaker 2010). As we expected, the narratives of abused women were characterized by a proportionately greater use of 'I', and a complementary lower use of 'We'. These data significantly confirm previous research which found that a proportionately greater use of 'I' is associated with lower marital satisfaction, poorer couple relationship quality and low involvement in dyadic communicative interaction (Sillars et al. 1997). Conversely, proportionately greater use of 'We' is a linguistic indicator of higher quality and stability in a couple's relationship (Williams-Baucom et al. 2010). Married couples more often use the pronoun 'We' than divorced ones do (Gonzales et al. 2010; Ireland et al. 2010; Seider et al. 2009). In terms of the use of the second person singular 'You', previous research has found it to be a significant indicator of relational contexts based on anger and conflict



(Tausczik and Pennebaker 2010), and, in particular it is common in couple relationships characterized by low emotional involvement and poor quality (Simmons et al. 2008). In our data, the use of the second person singular 'You' was also found to significantly differentiate the memories of the two groups of women, although frequency of usage of this pronoun was very low. As well, in the recalled memories of women who experienced violence there is significantly higher use of the third person singular pronoun 'He'. The greater use of 'He' coupled with decreased use of 'You' is likely due to the specific nature of the memory task they were engaged in. The women had been asked to identify an event that best characterized the quality of their couple relationship, and then to describe it (in writing) in detail. In most cases, this kind of request results in women using an indirect form ("I" and 'He') to describe the target episode on their relationship with their partner, and only occasionally do they report in a direct form the communicative exchanges between themselves and their partner, i.e., by means of quoted speech. In other words, in our corpus of memories 'He' should have the same relational meaning as 'You', and reflect a contentious perspective of 'I' versus 'He.' In support of this, the battered women had proportionately greater use of the singular third person pronoun 'He' in both explicit and implicit form, although there was no such difference between the two groups of women in their use of the plural third person pronoun 'They'. Thus, our data seem to support the claim that pronoun use plays a key role in the language of autobiographical memories because it significantly reflects a person's psychological and social world (Tausczik and Pennebaker 2010).

Prior research has suggested that narratives about traumatic memories, including violent experiences, tend to focus more on internal issues, such as cognitions and emotional scenarios, than on descriptions of external objects and people (Pennebaker 1997). Our findings are consistent with this. The women who experienced habitual violence included proportionately more descriptions of their cognitions than did women in the normative sample, which is not surprising. As we argued, couple violence represents a violation of the expectations and canonic rules that form the basis of romantic relationships. In other words, the continuous and repeated experiences of violence women live with in their couple relationship constitute a kind of extraordinary circumstance that hardly seems to be connected to the context in which it takes place and so is not easily and completely explainable. Consequently, in order to face the difficulty of rebuilding and communicating their experiences, women use more cognitive processes, trying to attribute a meaning and to understand the role played by their partner and themselves during the traumatic events.

In addition, abused women included more references to physical body issues. A host of research has documented serious and long-term consequences on women's health by habitual exposure to violence against them (Vos et al. 2006; World Health Organization 2013). As hypothesized, the language of memory, i.e., narratives, reflected this greater focus on physical bodies and health – women in the group regularly exposed to violence included more references to their bodies than did women in the normative sample.

We had no prior hypotheses about the frequency of references to other family members; however, greater mention of family by battered women could be explained by the fact that abuse often affects others in the family besides the woman (McLean et al. 2007). At the very least, other family members are often "blind" witnesses to the abuse (World Health Organization 2002, 2013).

Finally, it is interesting to note that, in contrast with our hypotheses, the length of exposure to domestic violence was generally not associated with substantial changes in linguistic characteristics and structure of the recalled memory narratives. However, it was significantly associated with the use of pronouns and words referring to women's emotional experience. In the narratives of women who suffered violence for a longer period of time the use of the pronouns 'I' and 'They' decreased and references to other members of the family increased. A consistent body of research on narratives has shown that one of the most effective ways whereby linguistic expression can transmit the meaning of recalled events to the narrator is the anaphoric presence of narrative characters, which is expressed by pronouns (Fivush 2011; Smorti 2011). So, our results seem to indicate that women who have been abused for a longer period of time tend to lose their sense of identity and value, canceling themselves and giving more and more importance to other significant social partners, especially within the family context. As well, the fact that the emotions and feelings related to anxiety and fear diminish over time suggests that the violence they suffer has become an ordinary experience of everyday life, a kind of eternal present to which they have adapted. This is consistent with research suggesting that over time, women's tolerance threshold for violence often increases (Dutton et al. 2011; Russel 2010), resulting in a narrowing of attention or awareness. This narrowed attention in turn is associated with increased difficulty in recognizing warning signs of violence and the ability to take protective measures. It is also associated with attitudes of self-blame and learned helplessness (Haj-Yahia and de Zoysa 2008; Sheikh and Janoff-Bulman 2010).

In conclusion, these findings show that the quality of relationships is strongly related to the autobiographical memories that people recall. Memory can be considered a distant mirror because it reflects not only the quality of close relationships, but also the dynamic changes that take place in those relationships over time (Peterson et al. 2010; Tani et al. 2010, 2015). This is particularly important because memory (and the expression of memory through language) plays such an important role in the creation of identity (Conway 2005; McAdams 2006; Peterson et al. 2010).



There are a number of limitations with this research. First of all, the sample size is relatively limited. However, ethical and security issues make it more difficult to recruit samples of abused women. Moreover, the sample included only native Italian women. Since considerable research suggests that autobiographical memory is influenced by culture (Wang 2013), an important future direction is to extend this research to other cultural groups. Nevertheless, given the limited amount of research in this area, this study provides a useful platform for further investigation.

Despite this, however, the results of this study have strong theoretical, social and clinical implications. From a theoretical point of view, the results of this study allow an advancement of knowledge about narrative studies on recalled autobiographical memories. Taken together, our results constitute significant support for the idea that the language by which individuals express their memories can provide important information not only about the speaker's psychological characteristics (McLean et al. 2007; Pennebaker et al. 2001), but also on the qualitative features of their social relations (Tani et al. 2010, 2015). In particular, our data showed that there are specific linguistic markers that characterize narratives of recalled memories about couple violence experiences. Thus, regardless of the specific narrative method used - oral interviews vs. written recalled memories - the linguistic markers are similar to those highlighted by studies on narratives of traumatic experiences.

Moreover, this research could have important implications for promoting community awareness and professional training addressed not only to clinical psychologists and social workers, but also to other practitioners, such as law enforcement officers, prosecutors, and judges. All of these professionals can be helped in their daily professional practice by a careful identification of the linguistic markers that characterize domestic violence experiences.

Finally, knowing about these linguistic markers and monitoring them across time could be useful indicators that can help evaluate the outcomes of narrative-based therapy. Assessing if, and to what extent, narratives of violent and traumatic experiences that are originally incoherent and cannot be linked to meaningful explanations change over time to become integrated into a coherent sense of narrative and identity would help a therapist monitor therapeutic success.

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