# Experience Affected in the Act of Remembering: A Study of Discursivity of Verb Tense Shifts in Memory Narrative

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## Abstract

This article contributes to the empirical understanding of the discursivity of verb morphology and verb tense shifts in memory narratives. Specifically, we explore how the 2016 presidential election result, as a historic and political event of the past decade, is recounted collectively through the lens of language use. In an online survey, 185 undergraduate students in the Computer Science department at the University of Georgia were asked to remember the day they learned about the 2016 presidential election results and write a narrative of their experience. The results from our analysis show a distinct correlation between the political leaning of the surveyed population and verb tense shifts in their stories.

## 1 Introduction

People navigate life enduring experiences with different emotional valence varying from negative to positive. Interestingly, bodies of evidence indicate that the feeling of remembering is heightened with emotion (Sharot et al., 2004); therefore, certain memories, as James et al. (1890) writes, feel as if they have "left a scar upon the cerebral tissues." These memory imprints are not necessarily on an individual level but sometimes on the collective memory of a group or society. For instance, one is more likely to remember what they were doing in the event of an occurrence designated historic by a group they feel affiliated with. This phenomenon underlines the durability of emotional memories and subjective vividness of significant experiences, especially in the course of their expression. The underlying lingual aspect of remembering grants it a discursivity that permeates the psychological aspect to the point that " there is no realm of subjectivity, unconscious feelings, or objective reality, that language does not reach" (Edwards, 2006). Foregrounding this social dimension of human memory and its language-dependency, Zerubavel (2012) believes we remember much of what we do only as members of particular communities. Thus through memory as the central faculty of being in time (Olick et al., 2011), we define our individual and collective selves. This understanding of memory narrative as a meaningful cultural and empirical object demands an engrossing examination of the socio-mental and pragmatic nature of language in the discourse of remembrance. In this study, we invoke approaches from the field of memory studies and are interested in the linguistic structures and complexities thereof, as well as in the insights they offer about how attitudes, emotions, and community identification are revealed through patterns of language use. This study explores how both salient and political events of the past are recounted on a collective scale. Specifically, the overall objective is to contribute to the understanding of emotionality in discourse by examining the morphosyntactic constructs and temporal consistency in autobiographical memory narratives.

We ask: $Q_1$ How is language a gate to emotionality and affect? $Q_2$ Is there a link between our political identities and the way we remember the past? In answering these two questions, we identify linguistic constructs that convey emotions, sentiments, and attitudes beyond what can be construed from the lexical, syntactic, and semantic features–irrespective of grammatical boundaries (Martin and White, 2003). Our contribution is two-fold: First, we introduce a memory narrative dataset of the collected text from surveys of 185 participants reflecting on and writing about the 2016 United States presidential election in Spring 2019. Second, we highlight the discursive function of verb tense shifts in memory narrative by demonstrating the correlation between the political leaning of the surveyed population and a proposed metric we dub *discontinuity*.

The rest of this paper is organized as follows: Section 2 introduces the theoretical concepts that inform and inspire our research questions. In section

2.2, we briefly review the philosophical concepts of affect– or simply the co-constitutive relation between our bodies and the world– and emotionality, and then in Section 2.1 delve into inter-connective theories in psycho- and sociolinguistics and cognitive science surrounding memory narrative, and emotion. Next, we introduce and review our dataset from surveys in Section 3 and proceed to our results and findings in Section 5. Finally, we provide a conclusion in Section 6.

## 2 Background and Literature Review

In this section, we provide an expanded view of theories and concepts on autobiographical memory and the function of emotion and affect enacted in the act of remembering.

### 2.1 Psychoanalytic Affect and Autobiographical Memory Narratives

Telling a story[1] about a past event relies on experience retrieval. It involves reconstruction and drawing on episodic memories, at times with greater cognitive effort for supporting details (Hauch et al., 2015). In this section, we focus on cognitive and memory-centered approaches, supplemented by socio-psychological considerations for the role of emotion and affect in the recall of collective experiences.

When events elicit intensities of affect, the valence of the experience (i.e., the polarity of the associated sentiment, positive or negative) can impact the details remembered (Kensinger, 2009). Interestingly, studies on autobiographical memory suggest that emotional self-appraisal of past events tends to be positively biased (Walker et al., 1997). The fading affect bias (FAB) is a tendency for emotions associated with negative or unpleasant-event memories to fade faster than emotions associated with positive-event memories (Walker et al., 2003). Therefore, the affective intensities of extreme and possibly traumatic memories dissipate over time. This understanding is more aligned with a constructivist concept of memory in which past experiences are reconstructed through remembrance such that they fit into a representation of the self.

Although it is difficult and possibly hazardous to undertake the description of a historical event, the privileged rhetorical status of an observer would enable the individual to author a narrative by some means. Biesecker (2002) highlights "what we remember and how we remember an event can tell us something significant about who we are as a people, about the contemporary social and political issues that divide us, and about who we may become." Similarly, Heidegger (2010) believes we are the sort of being that has a concern for what and who it is and is constantly reflecting on its own past (Brown and Reavey, 2017). Remembering the past and making sense of the present are clearly intertwined activities. As an example, Zerubavel (2012) underlines the difference between what Americans and Indians tend to recall from wedding ceremonies is a product of their having been socialized into different mnemonic traditions involving altogether different mental filters commonly shared by their respective mnemonic communities.

Evidently, memory narratives allow people and groups to organize and make sense of complex data of experience in ways that reflect their identities, goals, and values. Halbwachs (1992) contends "a remembrance is a reconstruction of the past achieved with data borrowed from the present." Regardless of the time directionality of these sociomental representations, past events are communicated following narrative conventions and plot structures acquired during childhood (Brown and Kulik, 1977). These conventions necessitate adherence to a temporal structure (Bruner, 1990). However, research on autobiographical memory shows that memory narratives may contain abrupt shifts from the past tense to the present tense, even sometimes done intentionally in order to engage the listener or the reader (Pillemer et al., 1998). In affective situations, the protagonist experiences a presence in the past that enables a vivid account of the perceptual experience through a heightened state of emotion.

This seemingly random switching phenomenon, notably the intrusion of present tense into past narration, has been an object of interest in various genres of narrative in a range of languages, ancient to modern (Fleischman, 1985). However, by probing the linguistic foundations in narrative performance, we can minimize the cultural and temporal gap, regardless of the genre and form of narrative.

### 2.2 Affect as a Residue of Lived Experience

The affective histories of lived spatiality and temporality hold agency over the essence of spontaneous emotions and feelings at present. Affect, in

[1] The terms 'story' and 'narrative' are used here interchangeably.

this account, is not synonymous with emotion and emerges as necessarily entangled with memories and materials, sensations, and spaces (Robinson and Kutner, 2019). Thus, it falls within a space that is beyond the hermeneutically qualifiable. This understanding of affective experience ensnares and subsumes emotion and is not reducible to singularizable, predictable, capturable, and identifiable feelings. However, this notion of affect does not deny or reject the subjectification of experience and only acknowledges an experiential dispersity that disrupts any fixation or stasis. Alcoff describes lived experience of the body "operating in various ways [that] invokes features of social realities, practices, and discourses and requires analyses that will not lose sight of [such] particularities" (Alcoff, 2005).

This conceptualization of our first proposed research question can be usefully done through Brian Massumi's account of affect. For Massumi, affect describes an autonomous system of intensity, 'associated with nonlinear processes: resonation and feedback which momentarily suspend the linear progress of the narrative present from past to future' (Massumi, 2002). The remembering "I" in a narrative is a fiction composed of multiple connections inside, outside, and through the body; it is "a protagonist that cannot be resolved or recognized as such" (Manning, 2013).

Arguably, the conception of affect as pre-individual and disperse that possibly decouples affect from emotion and meaning is not incompatible with our collective and distributed understanding of affect that neither emanates from nor belongs to a single individual subject but it is diffused across collective assemblages that encompass both bodies and language.

Motivated and informed by the theoretical concepts of memory narratives, emotion, and affect discussed above, we intend to put affect to work in ways that fulfill its theoretical potential without either reducing it to psychological conventions that focus on individual feelings and emotions or elevating it to higher levels of abstraction. One way to account for operationalization of the affective intensity in memory narratives lies in the extent to which temporal rhythm is disrupted by a shift in time, like an inadvertent intrusion of present tense into a past narrative. Reflecting on theories, we, therefore, premised our investigation described in detail in Section 5 upon the assumption that collective memories are structured linguistically and there exist multiple layers of meaning and affect surrounding the representations of the past and the present. Accordingly, operationalization of the temporal shifts in a memory narrative foregrounds the disconnection of affect from meaning and favors the narrative's affective rhythm as a primary and meaning as a secondary. Empirically, the affective rhythm can be parsed and analyzed by considering verb tense as a temporal marker. Although the function of verb tense in a narrative is not basically that of temporal reference, which in most narrative forms is a priori past tense, tense shifts would push it into pragmatics, ceding its study to discourse narrative. To further highlight the discursivity of morphosyntactic tense shifts, we endeavor to correlate the temporal structure of memory narratives with collective identities of the studied population around social movements and party politics (liberal and conservative ideologies) in the United States.

## 3 Dataset

Here we describe our process for creating the dataset from the conducted anonymized surveys.

### 3.1 Survey

The surveys[2] were administered in one non- and two proctored sessions using Online Qualtrics Survey Software[3] in Spring 2019. They consists of 29 questions, including 22 demographic items (e.g., education, job, social and political affiliations) and 7 items particularly related to the 2016 presidential election results. In the two specific items regarding memory narratives, the participants were asked to describe the day they learned about the presidential election results in 2016 using the prompts: *"What is happening around you?"* and *"Describe how feel?"*. To encourage the use of elaborate events, no maximum word limit was imposed on the length of the narratives. Responses to the survey were automatically recorded via Qualtrics. Surveys that were returned less than 100% complete were not considered in the analysis.

### 3.2 Respondent Demographics

The average age of participants (n=185) is 22.34 years old. Participants are predominantly in their fourth and third year of college, 63%, and 33% respectively. Of the participants, 75% identified

[2] Consent for using data was obtained through Qualtrics.
[3] https://www.qualtrics.com/

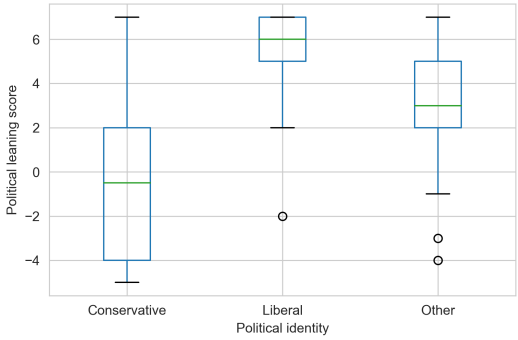


Figure 1: Summary distribution of political leaning score for three political groups. Political leaning is devised to reveal the political affiliation of participants in 'other' group.

as male by choosing male pronouns (he/him) as their preferred pronouns, 22% identified as female by choosing female pronouns (she/her) and 2% as non-binary by selecting they/them. 70% of the undergraduate students reported the United States as their place of birth. 51.87% reported both parents born in the United States, and 40.11% having non-native parents. 64.17% of the respondents reported both parents having a university degree, and 17.11% reported neither of their parents not holding a university degree. 16.04% and 49.20% self-identified as conservative and liberal, respectively, and 34.76% as "other". 81.82% were eligible to vote in 2016 of which 13.37% voted for Donald Trump, 33.16% Hilary Clinton, 4.8% Gary Johnson, and the other 48.66% preferred not to answer the question[4].

## 4 Method

In this section, we describe our approach to identification of the main verb in memory narratives and calculation of the political leaning of the participants based on their stances concerning social issues.

## 5 Experiments and Results

### 5.1 Political Leaning

Gauging an individual's political leaning is one of the most significant and enduring foci of political science. The results from the survey show levels of inconsistency between participants' self-claimed political leaning and their political standings on social issues. Toward gauging the affiliation of the participants who did not pigeonhole their political identities into "liberal" or "conservatives" categories by selecting "other", we devised a procedure that would assign a numerical score to the level of conservativity or liberality of the participants. With this procedure we can find the political affiliation of the "other" group to have a more comprehensive sample. We show that what we define as political leaning is aligned with the political identity that participants claimed. Figure 1 demonstrates the distribution of participants' political leaning scores across the three categories. As evident in the figure, the "other" category is closer to the "liberal" class, while the "conservative" category is more diffuse and incoherent.

To devise the political leaning metric, we asked participants to disclose their opinions on seven major social issues, namely Abortion Rights, Black Lives Matter, LGBTQA+ Rights, Public Health Care, Climate Change Denials, Strict Gun Control, and Strict Immigration Laws. The participants could be for, against, or undecided toward these issues. We assign a score to each social issue and a weight to each group (i.e., for or against groups). The overall political leaning score is the weighted sum of score values in both groups:

$$\text{political leaning} = \sum_{s} \sum_{w} s \times w$$

where $s$ is the issue score and $w$ is the group weight. Among all social issues, Abortion Rights, Black Lives Matter, LGBTQA+ Rights, Public Health Care, and Strict Gun Control are assigned a score of 1, and Climate Change Denials and Strict Immigration Laws are assigned a score of -1. Also, for group has a weight of 1 and against group has a weight of -1. For instance, a participant who is for Public Health Care and Strict Gun Control and is against Strict Immigration Laws receives a score of 3.

### 5.2 Discontinuity: Verb Tense Shift

The main verb of a sentence is one of the indicators of temporality in a sentence. In order to empirically analyze the structure of a sentence and detect the verb phrases, we utilized constituency parsing to detect the primary, secondary, auxiliary, and modal verbs in the narratives, and then using a rule-based classification on the part-of-speech tags used in the Penn Treebank, we distinguished between past and present tenses in the data. Arguably,

[4]We will open-source the data and the code upon acceptance of the paper.

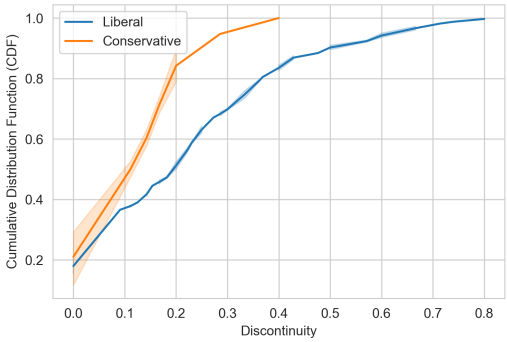


Figure 2: Distribution of discontinuity measure for the two political groups. Discontinuity is defined as the number of shifts in verb tense of a narrative normalized by the total number of verbs.

the perfective tenses are complex morphosyntactic constructions due to the multiplicity of their semantics and uses. In English, perfects are made of an auxiliary ("have," "be") followed by a past participle. In our categorization, present perfect and present perfect continuous were classified as "present", and past perfect as "past". Continuous tenses were classified according to their respective auxiliary verbs ("is," "are," "was," "were"). Reducing all verb phrases tags to "present" and "past", we measured the number of verb tense shifts occurred at a clause level in the memory narratives of each participant. We define discontinuity as the normalized version of the number of shifts in verb tenses in a narrative. For example, in "My peers are mixed between joy and distress, although the majority of my friends are in distress. There were cheers in my dorm hall when it was announced that Trump won.", the discontinuity is measured 0.2 since there are five verbs and one tense shift. Figure 2 illustrates the distribution of discontinuity measure for the two political groups of liberals and conservatives.

### 5.3 Discussion

We try to ground our study upon the rejection of dichotomies and demarcations on which modern social sciences are founded and demonstrate a willingness to search for a new paradigmatic framework for the interpretation of affective memory and its function from an empirically social and linguistic perspective.

Admittedly, the shifts examined in our preliminary study do not appear to be part of a deliberate presentational style used as a rhetorical device. Rather, the occurrence of verb tense shifts is influenced by underlying socio-political and psychological characteristics of the event, namely the 2016 presidential election and the participants. Accordingly, our findings suggest that the temporal discontinuity in narrative characterized by the shifts in verb tense is indicative of the emotional salience of the described experience (Brown and Kulik, 1977; Chafe, 1990; Neisser, 1982) and correlates directly with the calculated political leanings of the studied collective. The sentiment analysis of the provided adjectives by which the emotionality of the participants' experiences upon learning the presidential election results was expressed corroborates the heightened affect. The intrusion of the present tense in autobiographical memory narratives is suggestive of a lucid description of perceptual experiences of live quality (Pillemer et al., 1998). Indeed, the inadvertent slips into the present at emotionally and perceptually salient points support the idea of the multiple-leveled, language-based, narrative level of memory representation (Brown and Kulik, 1977; Spence, 1984). According to Pillemer et al., verb tense shifts in memory narratives point to the existence of "functionally distinct but interacting representational systems". They continue that present tense autobiographical accounts may occur when unusually affective and imagistic representations intrude into ongoing, purposeful narrative processing.

Writing a memory narrative entails not only the expression of affect but the re-experience of it. As Probyn (2010) states, as one writes "affects can seem to get into [their] bodies". This act of remembering, in conjunction with writing, always involves a heightened intensity of experience (Richardson, 2013).

### 5.4 Limitations

It should be noted that this study is not without limitations. The majority of participants are male, and the data is small in size. As with all studies that utilize similar methodologies, small sample sizes may lead to falsity. Also, identifying the full complement of factors that prompts a present tense intrusion into the recounting of a past episode is a task for future research.

## 6 Conclusion

In this paper, we focus on exploring the interconnectivities of diverse fields and searching for lin-

guistic constructs capable of recruiting empirical and discursive support. In addressing $Q_1$, we conclude that the intensity of emotions, or subjective experiences, are manifested in language use within and beyond morphosyntactic structures. Correspondingly, in autobiographical memory narratives of the studies group, the verb tense shifts are being used discursively, and the affective dimensions of their subjectivity and objective reality are clearly reflected in their language use. Moreover, as an answer to $Q_2$, we find a distinct link between the political leaning and the level of discontinuity, indicating higher levels of emotional salience. We believe in the absence of such an account, the representation and analysis of emotionality in the discourse of memory narratives would be negligent of the underlying morphosyntactic constructs in language.

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