The present study investigates how pain experience affects the cognitive representation of time and viewpoint in a particular genre and narrative. In patients’ reports, temporality of pain experience does not follow the objectively measurable time. The ongoing character of pain contains not only the present issues but also retains the preceding aspects of the here-and-now moment and anticipates the future notes as time unfolds. To describe this particular experience, I employ the cognitive-linguistic model of mental spaces and blending (Fauconnier – Turner, 2002). I analyze blog posts of patients with chronic diseases on the use of temporal deixis and tense focusing on the shifts realized between the Narrative Space embedding the Event Space in which the past events occurred and the Here-and-Now Space which comprises the narrator’s viewpoint as an Origo. Moreover, I presuppose the Intermediate Space between the Event Space and the Reality Space, providing a transition between the aforementioned spaces and legitimization of the reconstruction of the events (Van Krieken et al., 2016). Temporal overlapping proves that subjective experience steers tenses and temporal deixis which govern the construal of viewpoint and time in the narratives; therefore, time and viewpoint are immediately connected in the cognitive representation of the narratives.

Keywords: temporal referencing, narrative, mental spaces, blending, temporal deixis

Introduction

According to modern medicine, pain is referred to as quantifiable data focusing on the here-and-now moment limited in time and context. The Likert scale is used by physicians as an objective means to determine the severity of pain during the interview between doctor and patient. Patients should classify their pain experience on a scale from 1 to 10. The classification is limited to present impressions and a rather rough-and-ready assessment. Therefore, there is a decisive gap in understanding pain as a persistent phenomenon with episodic temporality (Leader, 1990:73). Patients’ subjective experience of pain is not often taken seriously (Toombs, 1990).

In patients’ reports, time concept is different from that of healthy people. In other words, the temporality of pain experience does not follow the
objectively measurable time. According to Husserl’s distinction (1905), subjective time is measured by someone’s perception of the duration of events while objective time can be measured by mechanical clocks or other timing devices. In this philosophy, a state of consciousness is connected to the here-and-now point; therefore, present time and consciousness are the same. Providing a more detailed description of the subjective experience of time, Bergson (1889) presented the concept of ‘pure duration’ in which “…several conscious states are organized into a whole, permeate one another, (and) gradually gain a richer content” (ibid: 122). In this way, time might be nothing but a succession of qualitative changes, which melt into one another, without precise outlines. Thus, time is not a line, but ‘pure heterogeneity’. Coming from this hypothesis, time can be understood as the accumulation of qualitative impressions extending from past experiences through present awareness to the anticipation of the immediate future. Bergson proposes in his process ontology that the universe is a process, dynamic, and continuous in nature without rigid entities. As the pain concept is a rather subjective phenomenon, its temporal analysis needs a phenomenological approach.

Toombs (2001), inspired by Husserl, writes that pain can be analyzed as a temporal object for consciousness. In this way, pain can be experienced as a continuum involving the past and future providing horizons for the present (Toombs, 1990). The ongoing character of the object contains not only the present issues but also retains the preceding aspects of the here-and-now moment and anticipates the future notes as time unfolds.

Methods

In the analysis, I employ Fauconnier’s (1985) and Fauconnier and Turner’s (2002) cognitive-linguistic model on mental spaces and conceptual blending. The term mental space plays an important role in the temporal representation of narratives. Mental spaces are connected by linguistic words and expressions realized in a system of conceptual domains by which we understand narratives. The Conceptual Blending theory claims that meaning construction involves the blending of conceptual elements. The input and output spaces are related to each other on their similar feature and projected into the blended space to gain an integrated concept.

Mental spaces and their blending are realized by the application of linguistic deixis in the investigation. Deixis is defined as a reference point showing a relationship between the structure of language and the context (Levinson, 1983:55). Deixis plays an important role in identifying persons, objects talked about concerning the context created by the speaker (Lyons,
1977:377). I propose to show the speakers' position at the time of speaking (Levinson, 2006:111).

More precisely, the analysis of temporal deixis in the excerpts refers to the event of an utterance described by tense and temporal adverbials. Subjective time governs the choice of tense and temporal deixis of the speakers which steers the drafting of time and viewpoint in pain narratives. Levinson (ibid:11) also points out that that the deictic field is organized around the Origo which is the zero point of the speaker. Placing the term of the deictic field into narrative context, Almeida (1995) claims that stories presuppose two Origos: one refers to ‘here-and-now’ in reality, the other is anchored to a virtual now-point. These different deictic centers are connected to two mental spaces: the Reality Space and the Narrative Space. Unlike fiction, time representation in blog narratives resembles news narratives (Van Krieken et al., 2016) which are related to reality represented by a timeline starting from the Origo of the events that happened to the Origo of the blog writer speaking at the present. Therefore, the reader should understand not only the shifts between the tenses offered by the Reality and Narrative Spaces but process the viewpoint of the actors in the events (Event Space) and that of the narrator’s subjective perspective. Moreover, I presuppose the Intermediate Space, between the events space and the reality space, providing a transition between the aforementioned spaces and legitimization of the reconstruction of the events (Van Krieken et al., 2016). Coming from the above facts, my interpretation will be limited only to the perspective of the blog writer.

I attempt to reveal that viewpoint and tense changes between the mental spaces demonstrate that the tense representations may permeate one another expressing the coincidence of past, present and future in the pain experience. In the material, I used a collection of blog narratives published between 2015 and 2016 in an internet source (https://lifeinpain.org/node/category/personal-stories/), each describing a personal pain story of a real patient. 34 blogs were selected that met the criteria of describing a pain experience in a narrative form. The three articles with short lengths (up to 74-127 words) were selected for better presentation.

The role of mental spaces in narrating events: The common loop

The most common type of temporal narration among the blog writers is as follows. The Reality Space (Fauconnier, 1985:240) includes the narrator’s deictic center and refers to the Narrative Space where the Event Space is construed. The reader’s deictic center overlaps with the narrator’s deictic center therefore, no more space is necessary to be indicated in the frame. The
Intermediate Space connects the Events Space and the Reality Space through the Narrative Space (Sanders – VanKrieken, 2019:288). N/1; N/2; N/3; N/8; N/10; N/11; N/12; N/16; N/17; N/18; N/20; N/23; N/25; N/26; N/27; N/30, N/31; N/33; N/34 (n=19) show these above characteristics. I found only a time shift between the Reality Space and the Narrative Space in N/29 without a reference to Intermediate Space, therefore, this blog did not demonstrate all the characteristics of the above classification.

The excerpt (N/26), April 7, 2015, titled Fighting to live with CP, please help, by Legally Blonde shows the time and viewpoint shifts as they commonly follow one another as it can be observed in other narratives (see above).

(1) I am 21. I am young.
(2) I played soccer for my university, and I was a highly competitive cheerleader. I was happy.
(3) Then slowly, pain crept in. It ruined relationships. It scared me. Nothing worked.
(4a) I have tried everything. (4b) Lately, things have been very bad. The pain has it hard to concentrate.
(5) I feel I’m living in hell.
(6a) Please, help. (6b) I don’t know how long I can live like this.

The narrator starts telling her story from the Reality Space which is the here-and-now point as an introduction (1). The narrator projects her deictic center from the Reality Space onto the Event Space through the Narrative Space (2). The temporal reference word, such as then (3) indicates not only a time but a viewpoint shift as well. The deictic center of the narrator shifts to that of the pain functioning as an external and impersonal deictic center.

The utterances (4a) and (4b) presuppose another space in which these sentences have been uttered, between the events and the here-and-now point. This Intermediate Space (Sanders – van Krieken, 2019) legitimizes the reconstruction of the events in the Reality Space and serves as a temporal bridge between the Reality and Event Spaces. The adverb, lately (4a), demonstrates another shift in viewpoint as the temporal reference word, then, did in the sentence (3). The reference word emphasizes the external viewpoint or deictic center embodied by pain. Utterances (5) and (6) represent real-time events such as the first sentences of the narrator. The utterance (6a) addresses the readers as an overlapping of the deictic centers of the reader and the narrator.

In the type of narration above, time and viewpoint shifts were realized except for tense overlapping. Tenses were described distinctively in the narrative (N/26) and no skips in time description were used by the narrator. In narration, a circular motion starting from present time proceeded through
past events and finally recurred in present time. This proceeding can serve as a common loop in temporality among several narratives in the examples listed. Figure 1 shows that narrative 26 used tenses distinctively and the Intermediate Space connected the Reality and Event Spaces.

Figure 1. Intermediate Space connecting Reality and Event Spaces

Embedded spaces

Yet, there are different temporal narration structures as opposed to the previous example (N/26). N/4; N/5; N/6; N/21; N/22; N/24; N/28; N/32 (n=8) show the characteristics described below. In example (N/22), titled *Spinal Block and Now Pain* by Kayce, June 7, 2015, the narrator’s deictic center is located in the past events (Events Space) being decisive in her later life. The narrator uses a temporal adverbial (*ago*) to show the viewpoint shift between the events which took place prior to the here-and-now point of the Reality Space of narration.

(1a) I had a spinal block done 8 years ago and (1b) the doctor ended up having to stick me 5 times. It was horrible. He hit a nerve 3 times and made my leg jerk.  
(1a) I wasn’t moving I was afraid to.  
(2a) He yells at me telling me to stay still. (2b) I’m scared, crying  
(3) And they refused to let my husband in.  
(4) Ever since I have been having really bad back pain  
(5a) When I’m standing or walking I get a sharp pain shoot up my spine. (5b) It feels like someone is stabbing me.  
(6) Does anyone know what is going on? Any advice?

The deictic center of the narrator (1a) as a definition of her health status moves to another person, the doctor in (1b) explaining the cause of her pain. Then, the focus of the narrator’s viewpoint returns to her deictic center again (1a). The focus of the narrator’s viewpoint is located on the doctor-
character in (2a) with a temporal change to the dramatic present showing a
dynamic interaction between time and viewpoint in the narrative discourse.
This here-now-point in the Event Space is relative to the Reality Space.

The function of the participant’s present time narration stops the
progression of the narrative time for a short time therefore, readers may take
part in the dramatic events of the story that provide a peak in the narrative
process. The focus of the narrator’s viewpoint (2b) signals her own deictic
center. The dynamic moves between the viewpoints and tenses (present-past)
emphasize the importance of the events taken place in the Event Space.

Labov and Waletzky (1967) refer to the peak above as the critical
point of the story. The critical event can be considered as an evaluation of the
actors and serves as a moral for the readers. In our example (2a; 2b), the
aggressive attitude of the doctor and the subjected behavior of the patient is
revealed.

Utterance (3) brings the readers to the past narration in the Event
Space as a continuation and explanation of the dramatic events. The utterance
(4) presupposes another space between the Event Space and the Reality
Space. This Intermediate Space serves as a link between past and present time
on the one hand, and on the other hand, it can be an explanation and
consequences of the past events. I adopt Van Krieken et.al’s term (2016),
Legitimizing Space, due to its function to legitimize the events in the Events
Space. The time shift in the utterance (5) brings the readers to the here-and-
now point of the story and the actual experiences of the narrator. In the
utterance (6) the focus of the narrator moves towards that of the readers
widening the narrator’s viewpoint.

The complex representation of the viewpoints and shifts of tenses
serve as an important function to signal emphasis (2a; 2b) or explanation (4)
of the events in the flow of time. The deontic modal (it) described in the
utterance (5b) shows an implicit viewpoint of pain which enriches the system
of viewpoints. Implicit viewpoints refer to a narrative subject of
consciousness (Van Krieken, 2018) interpreting events from an external
perspective rather than from the narrator’s point of view. Pain as an object is
worth mentioning (Halliday, 1998; Gyuró, 2018) as it is inseparable from the
perception of the subject but can be described as a distinct phenomenon in
language.

The embedded present time narration within the Event Space
illustrates a dramatic peak that can be considered as the most important part
of the events showing the real characters of the participants.
Overlapping spaces and deictic centers

According to the preliminary hypothesis of this paper, pain is experienced by the patients as an eternity of time when past, present, and future permeate one another not following a linear row with sharp outlines. Therefore, pain perception can be described by overlapping mental spaces revealed in the tense shifts and the use of various temporal adverbs governing time and deixis. N/7; N/9; N/13; N/14; N/15; N/19 (n=6) show these characteristics described in excerpt (N/15) titled Jared, December 15, 2016.

(1a) I’m 39 and my pain level is off the roof. (1b) I can’t do much.
(2a) I was treated comfortably as possible for about 15 years. (2b) I was on a lot and high doses of narcotics.
(3a) I go to chiropractors twice a week and physical therapy twice a week. (3b) I still do.
(4) Then came the war on drugs and their focus was pain doctors.
(5) I’m in Kentucky and it is the most barbaric state in treating pain.
(6a) Since people started abusing pain killers (6b) the drs won’t treat you anymore.
(7) They tell me we know you need a lot of meds but we can’t prescribe them anymore.
(8) He told me that I would be better off going to an addiction clinic to get your meds.

The narrator starts telling her story in the Reality Space which is the here-and-now point functioning as an Origo for the events (1a) and (1b). Then she recounts the past events providing a background for the further events (2a) and (2b) and projects her deictic center through the Narrative Space into the Event Space. The sentence (3a) refers to present events; therefore, it is related to the Reality Space, but the following manifestation (3b) makes it clear that (3a) is associated with the past events as well. Thus, time overlapping is realized in sentences (3a) and (3b). The former sentences provide an evaluation of the events as they intend to teach some morals. The shift to present tense is justified by the mode of narration that aims at
addressing the readers in the Reality Space. Figure 3 shows that Present in the Events Space is connected to the Reality Space. The permeability of tenses demonstrates the eternity of pain experience by the narrator.

The temporal adverb, *then*, in the sentence (4) demonstrates another shift into past tense which in turn, signals a move in the deictic center of the narration. The narrator focuses on the external participants, namely the pain doctors, in the narration. Tense and deictic shifts serve as an explanation of further events. The excessive use of drugs made the doctors restrict prescribing pain analgesics for people. Sentence (5) is narrated in the present tense again by the narrator who is related to the Reality Space through this utterance. This sentence is universally valid utterance addressing the reader in the Reality Space but referring back to doctors in the past events in sentence (4). In this way, past and present utterances are intertwined showing no sharp boundaries between the Event and the Reality Spaces. Time is a process where a transition between events is simple for the narrator.

Time overlapping is clear in sentences (6a) and (6b) as (6a) is related to the Event Space but (6b) can be associated with the Reality Space with a special reference to the future consequences. The deictic shift in (6b) to doctors involves a tense change as well. Reference to the future carries a particular emphasis to the reader. The sentence is not only an implicit imperative for the readers but the 2nd person Sg. pronoun even highlights the addressing mode. *You* can be a universal pronoun concerning all people and an addressing form in 2nd person Sg. The deictic center in the sentence (7) coincides with that in the sentence (6b). This is the external viewpoint of the doctors whose opinion is valid to the present, thus it is related to the Reality Space. This utterance interprets the described events from the point of view of these subjects rather than that of the narrator. The present time locus
highlights the deictic shift as well and, at the same time addresses the reader. In sentence (8) another deictic shift is realized. The viewpoint turns to a single doctor whose recommendation aims at the narrator only in this particular event. Particularity is demonstrated with the tense shift to simple past.

As a conclusion, we can see that within a few sentences several linguistic devices guide the reader forward and backward in time. Changes in tense and the use of temporal adverbs signal changes in viewpoints. The complexity of the justification process of the narrator explains why the progression of narration is temporarily stopped and changes into a different tense or viewpoint. Moreover, not only time and viewpoint shifts could be observed in the excerpts but time overlapping was found in the utterances. This short excerpt (N/15) above demonstrated the permeability of temporal phases which, in turn, proved the eternity of pain experience of the narrator.

**Conclusion**

The preliminary hypothesis involved the well-known fact that patients’ time concept is different from that of healthy people. Coming from the patients’ perception, pain experience follows the subjectively measurable time. Bergson (1889) presented the concept that time can be comprehended of impressions that last from past experiences through present moments towards the immediate future. Time changes melt into one another without definite boundaries. According to Toombs (2001), pain can be analyzed as a continuum that involves past and present providing horizons for the future. Time as a temporal object can be described with the help of mental spaces and conceptual blending. Therefore, subjective time governs the choice of tenses revealed by mental spaces and temporal deixis of the speakers which steers the drafting of time and viewpoint in the narratives. The deictic centers are connected to mental spaces: The Reality Space, Narrative-Event Space and the Intermediate Space. Three kinds of patterns of conceptual blending were found among the narratives analyzed.

A common type of narration was described by (N/26). Time and viewpoint shifts were realized except for time overlapping. Tenses were described distinctively by the narrator. A circular motion starting from the present proceeded through past events and finally recurred in the present time in the narrative extract. Narratives showed this type of structure: N/1; N/2; N/3; N/8; N/10; N/11; N/12; N/16; N/17; N/18; N/20; N/23; N/25; N/26; N/27; N/30; N/31; N/33; N/34 (n=19) and N/29. Embedded space in the narrative flow was applied when the embedded present time narration within the past-time Event Space illustrated a dramatic peak as the most important part in the story and showing the real characters of the participants at the same time.
time (N/22). The following blogs could be characterized by this structure: N/4; N/5; N/6; N/21; N/22; N/24; N/28; N/32 (n=8).

Overlapping time, mental spaces, and change in viewpoints demonstrated the permeability of temporal phases in the narrative and the eternal pain experience of the narrator (N/15). The progression of narration was temporarily stopped from a past time experience into present tense when the narrator addressed the reader or intended to tell a universal truth. I found blogs with overlapping time, mental spaces and change in viewpoints, such as N/7; N/9; N/13; N/14; N/15; N/19 (n=6).

As a final conclusion, I can claim that the preliminary hypothesis of this study was only partially justified. In the examined sample, fewer narratives (n=6) demonstrated the characteristics of time permeability than those of time distinctiveness (n=28).

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Internet source

https://lifeinpain.org/node/category/personal-stories/
Appendix 1. Titles and retrieval dates of narratives taken from the internet source
(Source: https://lifeinpain.org/node/category/personal-stories/)

N/1: Compartment Syndrome journey for teenage girls. Aug. 8, 2016 by Grace F.
N/2: A hermit and her herniation. Aug.30, 2016 by Hermit 78
N/3: Epidural neck injection went very wrong. Oct.7, 2016 by Car
N/4: Life with pain. Sept. 1, 2016 by Liss
N/5: Cortizone injection to the c6 and c7. Sept. 18 2015 by Brian Smith
N/6: Thank you. Seriously. Sept.16 2015 by Cara
N/7: Puzzled. July 23, 2015 by Lenny
N/8: Well, this is depressing. First time posting. Oct.13,2015 by Firefly
N/9: Chronic pain that makes me almost suicidal every morning. Sept.16,2015 by
jwowzer
N/10: A teen in pain. June 26 2015 by Dani
N/11: I’m a lucky one with LPHS. June 29 2015 by Luckyone
N/12: I’ve been in constant pain for 8 years. Oct.8, 2016 by Kyla Johnston
N/13: The name of my monster. July 13, 2015 by Sam
N/14: Cervical epidural. Aug.13, 2015 by Sanman
N/15: Jared. December 15, 2016
N/16: A teenager’s journey dealing with chronic pain. March 23, 2015 by P.T.
N/17: I need help. April 13 2015 by Betty Albright
N/18: I finished my last shot 2 weeks ago. March 28 2015 by Lindalette
N/19: Chronic pain sufferer. April 15 2015 by starnote
N/20: Everyone has to work. April 21 2015 Larry
N/21: Winning the battles, but losing the war. April 17, 2015 by Anonymous
N/22: Spinal block. June 7, 2015 by Kayce
N/23: My story matters. June 12, 2015 by Stanner 511
N/24: Chronic pain with no diagnosis. June 17 2015 Lad 7970
N/25: A living hell with LPHS. April 26 2015 by nick 12
N/26: Fighting to live with chronic pain, please help. April 17, 2015 by Legally Blonde
N/27: Fix me! Aug.19, 2015 by Christy
N/28: Ignorance is bliss. Sept. 7, 2015 by Kat
N/29: Never ending pain. Aug.26, 2015 by Denise
N/30: Just diagnosed with suspected LPHS. Feb.5, 2016 by Tilly Bishop
N/31: Cervical shots. Dec. 18, 2015 by Deb
N/32: Too young for this. Nov.15, 2015 by Car
N/33: Worst day. Nov.18, 2015 by Dee
N/34: My life is pain. Nov.12 2015 by Jared