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"The bloodiness and horror of it"

Intertextuality in metaphorical accounts of endometriosis pain

Stella Bullo

Manchester Metropolitan University

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In this work, I explore pain descriptions by women who live with the life-altering gynaecological disease of endometriosis. This condition causes incapacitating pain, which tends to be dismissed and normalised as part of the female condition (Cumberbatch, 2019). My aim is to explore the general patterns of pain conceptualisation by women with endometriosis and outline how an in-depth examination of salient elements of narrative scenarios may contribute towards providing a comprehensive understanding of the pain experience. I first examine patterns of metaphorical pain collocates from a corpus generated from online forum contributions. Following this, I explore metaphorical scenarios of pain, focusing on stories that reference popular texts or genres from a conceptual integration perspective. I argue that the combination of metaphor analysis of naturally-occurring data and conceptual intertextuality and interdiscursivity analysis in the metaphorical scenarios of elicited data constitute a methodological niche that allows a holistic assessment of the pain that can potentially be used in consultations and may help tackle the alarming diagnosis delay of endometriosis, which is currently 7.5 years.

Keywords: endometriosis; pain; intertextuality; blending; metaphor

1. Introduction

This article examines metaphorical descriptions of pain in women who live with endometriosis in order to explore how an integrated approach to pain and language can offer a comprehensive overview of the endometriosis pain experience.

The word pain is used to refer to physical sensations that have wide-ranging severity and lasting effects. We can suffer from pain caused by physical damage, such as a cut, or a broken limb. This is known as nociceptive pain and it lasts until the tissue damage is healed (Nicholson, 2006). On the other hand, we can have longer-lasting pain that is not caused by tissue damage but lesions or dysfunction in the nervous system, such as chronic back pain. The latter is known as neuropathic pain. This type of pain is not as visible and can become chronic pain (Nicholson, 2006). These factors are widely reported to impact the ability to communicate it (e.g., Schott, 2004). From a medical perspective, Bourdel et al. (2015) point out that evaluating and identifying pain type is very challenging given the subjectivity and complexity of the pain experience that requires "a good description of its individual characteristics for each patient" (p. 137). Similarly, Schott (2004) has pointed out that communicating pain, where no signs of physical damage explicitly indicating the mechanisms are found, constitutes a challenge for patients, given its unfamiliarity and detachment from "people's experiences" (p. 209). Such a lack of experiential understanding forces patients to rely on a variety of language tools (Lascaratou, 2007) and even resort to imaginative frameworks (Gosden, Morris, Ferreira, Grady, & Gillanders, 2014). In this article I explore the ways in which women with endometriosis describe unfamiliar and invisible pain by means of metaphorical expressions and scenarios. I offer a conceptual and methodological approach to endometriosis pain descriptors by using online forum and interview data.

My aims are, firstly, to gain an understanding of the generic patterns of pain conceptualisation that can provide an indication of pain frequency and severity, by examining metaphorical pain collocates from a corpus on posts from online endometriosis support forums. Secondly, I aim to explore how an examination of intertextual and interdiscursive metaphorical accounts of pain may provide an indication of pain mechanisms, and their impact on women. I argue that combining a corpus-assisted metaphor analysis of naturally-occurring text data in forums, with manual conceptual blending analysis of elicited data constitutes a methodological niche that allows a more comprehensive assessment of the endometriosis pain experience than the standard 1–10 scale normally used in medical consultations allows. This, in turn, can potentially alert practitioners to the need for diagnostic treatment and shorten the diagnosis delay length.

1. Endometriosis

Endometriosis is a gynaecological condition whereby tissue which resembles and acts like the lining of the womb grows in other parts of the body. Every month, remains of the menstrual cycle are trapped inside the body forming cysts and adhesions causing, among other manifestations, severe pain (e.g., De Graaff et al., 2013). Despite allegedly affecting 1 in 10 women, the average worldwide diagnosis delay is 7.5 years (Endometriosis-UK, n.d.). This delay is attributed to a number of factors, ranging from the complexity of the condition's manifestations to the tendency to normalise and dismiss pain, which has been widely documented in academic (e.g., Wright, 2018) and media sources (e.g., Cumberbatch, 2019). Further to this, deficiencies in the

communication, and elicitation, of pain in early consultations have also been seen to partly play a role in extending diagnosis delay (Bullo, 2019).

Endometriosis pain is classified into three general categories (Bourdel et al., 2015). These are: (a) cyclical, that is occurring during the menstrual cycle; (b) chronic pelvic pain, that is pain of more than six months' duration that is severe "enough to cause functional disability" (Bourdel, et al., 2015, p. 137); and (c) functional pain, that is pain during (e.g.) sexual intercourse, or urination. Therefore, endometriosis has elements of both nociceptive and neuropathic pain (Howard, 2009). Further to this, Morotti, Vincent and Becker (2016) suggest that, due to the complexity of endometriosis, other factors such as physical stress, hormonal cycles and pain-coping strategies may influence the perception of pain. In other words, endometriosis pain needs to be considered as not only a physical but also an emotional experience. Hence, endometriosis pain assessment tools should include more than a single descriptor of pain *severity* (i.e. using the 1–10 scale, which is the most common practice) but also the *quality* of the pain through descriptors that are indicative of underlying pain mechanisms (e.g., 'burning', 'twisting'), as well as the "interference with physical or emotional function or quality of life in general", that is, its *impact* on women's lives (Morotti et al. 2016, p. 9). Endometriosis specialists (e.g., Bourdel et al., 2015) have devised endometriosis pain assessment tools, but these tend to be used by specialists once women have been diagnosed with endometriosis in order to inform treatment. This means that women's pain complaints during early consultations, before they have been diagnosed, are not always systematically or holistically assessed in early consultations, as advised by Morotti, et al. (2016), sometimes leading to dismissal and normalisation, as mentioned above. This paper, therefore, seeks to address this gap in practice, by offering a

potential means of assessing both the severity and quality of pain experience prior to diagnosis.

2. Pain and metaphor

Following the definition of pain by the International Association for the Study of Pain (IASP) as "actual or potential tissue damage, or described *in terms of* such damage" (my emphasis) (1994, online), which is indicative of the potentially metaphorical nature of its descriptions (Lakoff, & Johnson, 1980), an extensive body of literature has focused on the metaphorical nature of pain (e.g., Schott, 2004). In an analysis of the most frequent collocates of pain identified in the British National Corpus of English (BNC) and the McGill Pain Questionnaire for pain assessment, Semino (2010) found that descriptors frequently refer to pain metaphorically by reference to physical damage. That is, given its abstract and invisible nature, as in the case of chronic or neuropathic pain, pain is compared to tissue damage caused by physical (concrete) harm, e.g., 'stabbing pain', that is, nociceptive pain. In other words, PHYSICAL DAMAGE becomes the source domain against which the abstract concept of pain, or target domain, is compared, as posed by conceptual metaphor theory (Lakoff & Johnson, 1980). Semino (2010) further classified metaphorical expressions used to talk about pain that evoke different kinds of PHYSICAL DAMAGE according to what causes such damage, as follows: (a) VIA INSERTION OF POINTED OBJECTS (e.g., *drilling*); (b) VIA APPLICATION OF SHARP OBJECTS (e.g., *stabbing*); (c) VIA PULLING OR TEARING (e.g., *wrenching*); (d) VIA A MALEVOLENT ANIMATE AGENT (e.g., *torturing*); (e) VIA EXTREME TEMPERATURE (e.g., *searing*), etc. (Semino, 2010, pp. 209–210).

Similarly, Bullo (2019) found that women predominantly use similes to describe pain

when elicited in survey data. Similes are defined as "an explicit statement of comparison between two different entities, conveyed through the use of expressions such as 'like', 'as', 'as if' and so on" (Semino, 2008, p. 16). An example of simile in the description of endometriosis pain is *"[it] feels as if I am being stabbed by a long, sharp knife"*[1]. Similes can frequently be considered metaphors where they compare one concept in terms of another. However, by using explicit comparative devices, participants draw "the listener's/reader's attention to a different conceptual domain or area of experience from the current topic of the text or interaction" (Semino, Demjen & Littlemore, 2013, p. 43) for a particular rhetorical purpose.[1]

An interesting and relevant notion within metaphor theory is that of metaphorical scenarios (Musolff, 2006), defined as "a set of assumptions made by competent members of the discourse community about 'typical' aspects of a source-situation" (p. 28). Scenarios are "richly loaded with encyclopaedic and socio-culturally mediated information" that allow the mapping of concepts between conceptual domains thereby facilitating inferences for the interlocutor who is asked to understand a concept or experience in terms of the story constructed (Musolff, 2006, p. 36). My interest in the use of metaphor in an endometriosis pain assessment context in particular is to explore whether the use of metaphorical scenarios – both through conventional metaphors (e.g., '*stabbing pain*') and through the use of similes (e.g., '*I feel* ***like*** *somebody is strangling my womb with a long, sharp knife*') – can indeed be seen to provide some indication of the severity, quality and impact of the pain experience (Morotti et al., 2016) more effectively than the usual 1–10 scale offered by doctors reportedly fails to capture. The analysis of these metaphorical scenarios provides a good indication of metaphorical

[1] Metaphorical word underlined

patterns in situated endometriosis discourse communities by virtue of the assumptions that they carry, which undeniably can indicate the *severity* and even the prolonged nature of the endometriosis pain experience. However, they still do not provide sufficient lexicalised information about the *quality* and *impact* of the pain, as the medical literature recommends (Morotti et al., 2015, p. 9). This is not surprising, given that women will be aware of the severity of their pain but not necessarily of the mechanisms of it. Therefore, I suggest that an extension of the analysis into other textual features of the stories, along with a speculation about unconscious mental processes behind the construction of the scenarios, and use of such features, in pain narratives might provide an indication of endometriosis pain mechanisms that women present in early consultations.

An example of such features found in metaphorical narratives of pain is the reference to popular texts, for example: *"I'm not just under the weather. I'm the Wicked Witch of the East under the house the weather threw at me"*[2], "*like T-Rex has been unleashed on my insides"* or "*like a violent, sporadic, samurai sword massacre in and around your delicates"*, to name but a few. The examples above indicate a need to construct a metaphorical narrative to convey the pain severity and the reliance on encyclopaedic and socio-cultural knowledge (Musolff, 2006). Furthermore, they hint at aspects of conceptualisation of the pain experience that go beyond the understanding of a phenomenon in terms of a metaphorical scenario from which perspective we are being asked to interpret the pain experience, but rather they include the integration of an

[2] The Wicked Witch of the East was a character in the original L. F. Baum's 1900 novel The Wizard of Oz, along with The Wicked Witches of the West, North and South. Source: Bauer, P. & Lowne, C. (n.d.). The Wonderful Wizard of Oz. Encyclopaedia *Britannica.* Retrieved from https://www.britannica.com/topic/The-Wonderful-Wizard-of-Oz [December 2019]. In the 1939 film, the Wicked Witch of the East, who is the Wicked Witch of the West's sister, is killed when a house falls on her.

external stimulus into existing knowledge structure in the reconstruction of pain episodes (Bullo, 2014).

When it comes to narrative accounts, Ricoeur (1988) proposes that people make sense of their narrative identities in the same way they do of characters in stories (Dauenhauer & Pellauer, 2012). This resonates with Ritchie's (2010) suggestion that "both metaphors and stories activate detailed simulations of perceptions, emotions, and action sequences that can contribute to listeners' involvement in the story" (p. 140). The examples above present information that is likely to be known to the interlocutor through intertextual and interdiscursive chains.

I propose that an insight into women's processing, and recalling, of the pain experience and, potentially, its mechanisms, can be accomplished by an examination of the mental processes behind the construction of scenarios or stories, in particular, those that rely on socio-cultural knowledge based on intertextual or interdiscursive references.

3.1 Conceptual blending theory

Fauconnier and Turner (2002) also address the notion of scenarios in relation to mental spaces created 'online' in a conceptual blending process that conceives the existence of a subconscious process of meaning making. I suggest that this can adequately account for the nuances in the metaphorical scenarios of the pain experience constructed by women and may shed some light on the mechanisms associated with endometriosis that women describe.

Conceptual Blending Theory (CBT) involves combining, or blending, elements from different scenarios or mental spaces with shared schematic structures, prompting parallels between them, in order to derive a new conceptual model to apply to the

current situation. A central notion of the theory is that of mental spaces, or "conceptual packets constructed as we think or talk, for the purposes of local understanding and action" (Fauconnier & Turner, 2002, p. 40) that are informed by schematic structures containing background knowledge, sociocultural experience and even assumptions (Hart, 2010). In a basic blending network, there are two input spaces with cross mappings linked by 'vital relations' such as analogy, identity, intentionality, role, and time and space (Fauconnier & Turner 2002, pp. 89–111). There is a generic space considered to be a higher level of abstraction that contains the conceptual structure that both input spaces share. Finally, there is a blended space where certain elements from the input spaces are projected to give rise to a new emergent structure. The latter is an integrated conceptualisation of a specific notion that arises from the blend that is unique and novel. Blended spaces are sites for "drawing inferences" and "developing emotions" (Fauconnier & Turner (1998, p. 4). This echoes Musolff's (2006, p. 36) discussion of assumptions being an "integral part of the conceptual package that is mapped onto the target concepts, allowing matching inferences... at the target level". According to Hart (2010, p. 117), only the structure "which is relevant to the text-producer's intention in constructing the blend … gets projected into the blended space". This is known as 'selective projection'. I suggest that in accounts of endometriosis pain, as scenarios are elicited in participants, the selective projection may unveil some key elements that could indicate the type of pain being described. Hence, an examination of the selective projection of intertexts into such scenarios may allow an insight into endometriosis pain mechanisms and provide a more comprehensive insight not only into its severity but also its quality and impact.

3. Data and methods

The data for this study has been selected from a body of pain descriptors from two sources: (1) a corpus of posts from web-based endometriosis support forums and (2) pain descriptions elicited from semi-structured interviews. Using corpus linguistics tools (AntConc), I analyse the collocates of the word *pain* in the first data set using Conceptual Metaphor Theory (Lakoff & Johnson, 1980; Semino, 2010) in order to gain a general understanding of the prominent patterns of endometriosis pain conceptualisation across the corpus that can potentially shed light on the generic types and severity of pain described collectively. I analyse the second data set by applying Conceptual Blending tools (Facounnier & Turner, 1998) to selected metaphorical scenarios elicited during the interviews, in order to outline the salient elements of the narrative that may contribute towards offering an insight into specific pain mechanisms and impact on the participants selected. This combination therefore allows a holistic assessment of the endometriosis pain experience.

In terms of the corpus data, I first gathered posts from endometriosis English language forums through searches for 'endometriosis support forums'. The corpus comprises 241,997 word tokens and 9,397 word types. It is estimated that over 250 women contributed to the forums.[2] I used frequency tools as a starting point in order to gain a generic perspective and direct me to explore specific parts of the corpus (Baker, 2006). A preliminary frequency analysis carrying out a search for the string 'pain' returned 2,130 hits, rank number 17.

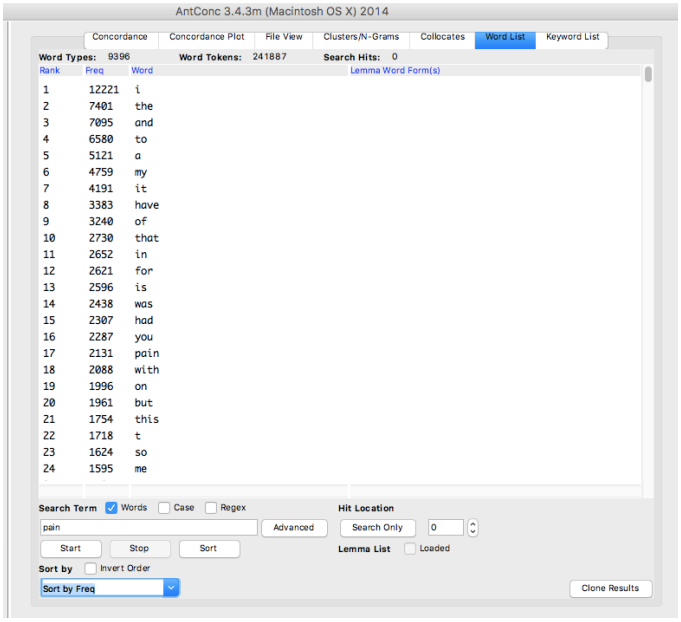

Figure 1. Pain frequency

This revealed that the word *pain* has a frequency of 88.1 per 10,000 words (8 times per 1,000 words) in the corpus, whilst the same search has a frequency of 0.7 times per 10,000 words in the 98 million word British National Corpus.[3] The frequency of *pain* in the corpus indicated that a more detailed analysis of collocates of *pain* would allow a more systematic understanding of meanings and associations (Baker, 2006) of the word in extended units of meaning.

I then identified pain descriptors by analysing collocates two words to the right and left of the search string *pain*. I manually searched for metaphorical descriptors by determining a contrast between the contextual meaning of an expression (e.g., *stabbing pain*) with the basic meaning (e.g., *stab* [v]: to injure someone with a sharp pointed object such as a knife [Cambridge Dictionary online, n.d.]), as advised by the Pragglejaz Group (2007). This revealed that 9% of the pain references in the corpus are used metaphorically to describe pain and refer to PAIN AS PHYSICAL DAMAGE. I then

subcategorised metaphorical pain collocates using Semino's (2010) taxonomy outlined above (cf. section 5.1, table 1).

The interview data consisted of accounts of pain elicited through 22 one hour-long semi-structured interviews with women who responded to my call for volunteers via social media. The age range of the participants was 27 to 53 years, with the majority being in their mid-30s. Women were asked to recall their experiences of the condition from onset of symptoms to diagnosis, its effects and impact on their lives, and to describe their pain.

Unsurprisingly, most descriptions were elaborate metaphorical accounts, or stories, of the pain experience. Ritchie (2010, p. 125) defines stories as the "representation of an event or a series of events" whist he refers to narrative as "a story that has been intentionally (or artfully) constructed and that satisfies the criteria of a minimal plot, including a problem, expected resolution, difficulty or surprise, and actual resolution". The accounts in the data normally consist of reconstructions of an episode, and at least one character, i.e. the woman, and at times, an animate agent, either external '*somebody is stabbing my insides*' or internal '*my organs are trying to kill me*'. (e.g., Abbot, 2008). The plot builds around the theme of prosecution where single actions, normally involving aggression and violence, with no resolution, are listed, working cumulatively over the stretch of a situated conversation, to create semantic interdependence between the statements (Martin, 2004). Some stories are embellished with external references that rely on encyclopaedic or shared knowledge by integrating other stories, such as The Wicked Witch of the East example above, or genres, into the pain account. This works to construe a local community with the interlocutor (Lui, 2018), thereby relaying an interpersonal prosodic feature to the story that allows the transfer of socio-cultural

assumptions and meaning about aspects of source scenarios (Musolff, 2006). Given that the interview data I use consist of stretches of conversation representing, or constructing, events that rely on socio-cultural meanings, echoing Ritchie (2010) and Musolff (2006), I refer to them as 'stories', 'scenarios', as well as 'accounts', interchangeably.

I selected stretches for analysis that include such intertextual and interdiscursive references. This decision was not necessarily based on frequency, as they were taken from the interview data from a sample of only 22 women. The purpose of this selection was not to argue about the representativeness of the presence of intertextual/interdiscursive references in accounts of pain, but rather to explore how such accounts may have the peculiar characteristic of shedding light on aspects of the pain experience other than severity, i.e. quality and impact. To that end, I selected stretches by identifying the intertextual and interdiscursive references by "identification of a referent found outside the co-text and inferred to be present in the participants' socio-cultural and historical context" (Bullo, 2017). I corroborated references with a number of people, including an audience at a conference, who all agreed with the connections made to the original texts. One example of intertextuality and one of interdiscursivity from the data have been selected to illustrate my argument in the following section.

4. Findings

The findings below present a categorisation of the types of pain as PHYSICAL DAMAGE, identified in the *pain* collocates in the online forum data. I then present intertextual and

interdiscursive metaphorical accounts from the interview data, manually analysed using Conceptual Blending Theory.

4.1. Pain collocates

As can be seen from Table 1, the subtype of the PHYSICAL DAMAGE metaphor with the highest percentage of occurrence in the corpus is PHYSICAL DAMAGE VIA MALEVOLENT ANIMATE AGENT (Semino, 2010). In other words, endometriosis pain as the target domain is mapped to PHYSICAL DAMAGE caused by a MALEVOLENT ANIMATE AGENT.

Instantiations of CAUSES OF PHYSICAL DAMAGE source domain and classifications	**%**	**Examples of linguistic metaphors from the corpus**
PHYSICAL DAMAGE VIA INSERTION OF [THIN] POINTED OBJECTS	4	*'it's piercing pain in my back'*
PHYSICAL DAMAGE VIA THE APPLICATION OF PRESSURE OR WEIGHT	6	*'choking pain in my bowels, bladder'*
PHYSICAL DAMAGE VIA MOVEMENT	8	*'a throbbing pain that comes in waves'*
PHYSICAL DAMAGE VIA PULLING OR TEARING	12	*'an awful tearing pain on my right side'*
PHYSICAL DAMAGE VIA INCAPACITATING FORCE	12	*'a kind of electric pain…'*
PHYSICAL DAMAGE VIA TEMPERATURE	14	*'this horrible searing pain…'*
PHYSICAL DAMAGE VIA THE APPLICATION OF SHARP OBJECTS	14	*'stabbing pains around my ovaries'*
PHYSICAL DAMAGE VIA MALEVOLENT ANIMATE AGENT	30	*'a deep gnawing pain'*

Table 1. CAUSES OF PHYSICAL DAMAGE metaphorical expressions

The collocate analysis reveals that the PAIN AS A MALEVOLENT ANIMATE AGENT metaphor is more predominant in this corpus than in BNC findings outlined by Semino (2010, p. 210). This can be considered an indication of a number of aspects associated with the condition itself. The invisibility and inconsistent manifestations of the

condition, which make it difficult to determine its presence with certainty in initial consultations and even in straightforward scan tests, often leaving symptoms dismissed may create a sense of uncertainty in women in relation to there actually being something wrong within their own bodies. In fact, there have been reports of women being told that the pain is in 'in their heads' (Dusenbery, 2018). This uncertainty may lead to women seeing their pain as 'external' to their own bodies, being inflicted by an agent rather than as an organic manifestation in the body. This metaphor may also be evidence of the disempowerment caused by its severity, and the sense of victimhood caused by its emotional and physical oppression. In terms of metaphor theory, the predominance of the MALEVOLENT ANIMATE AGENT metaphor resonates with Musolff's (2006) notion of assumptions that form part of the metaphorical scenario. The MALEVOLENT ANIMATE AGENT causing PHYSICAL DAMAGE scenario carries evaluative meaning (i.e. the pain is very intense) and attitudinal bias (i.e. a victimhood position) which is consistent with the "particular dispositions and preferences" of the "discourse community" (Musolff, 2006, p. 23) of women with endometriosis, as evidenced by the corpus. It is also worth considering the characteristics of the data site. Forums are public spaces where women gather in a particular community of practice. They play an important role in addressing the information deficit issue that has been characteristic of endometriosis (Seear, 2009). Preece (1999) proposed that online forums work as empathic communities that enable patients to share concerns, manage expectations, and offer the unique perspective of personal experience, of which empathy is an essential component. Therefore, in this specialised corpus of a small size, it is imperative to be sensitive to the context of production and reception (Baker, 2006). Thus, I do not aim to make generalisations about the use of the word *pain* in the English language, but rather

to explore its manifestation in endometriosis sufferers' language use. And even though the sample is rather small in relation to the widespread nature of the condition, the findings show some degree of consistency with reports of the difficulty in communicating endometriosis symptoms successfully to achieve a timely diagnosis (Bullo, 2019).

4.2. Accounts of pain

A closer exploration of the accounts of pain in the interview data, which is elicited, also shows that the MALEVOLENT ANIMATE AGENT is drawn into the account through intertextual chains. Intertextuality is referred to as the structural integration of one text into another through a "rewording of the original" (Fairclough, 1992, p. 104), for example, the descriptor featuring the Wicked Witch of the East in the data. I examine this data from a CBT lens, as outlined in section 3.1.

> (1) *I had maybe one pain-free day a month. And I'm not talking cramps. I'm talking curled into the foetal position when I'm not running to the bathroom… On a good day, it would feel like I had very tiny people in there with ropes tied tightly around my insides and pulling down, hence the foetal position* (Interview 11).

In this account, the woman describes the pain she used to feel (before she had a hysterectomy). She narrates the pain episode to reach a climax when she explains that her pain rendered her in a foetal position either in bed or even on the floor. She frames the pain account by means of what could be interpreted as an intertextual reference to

'Gulliver's Travels', the eighteenth-century novel by Jonathan Swift, later made into films. In the film storyline, during his first voyage, Gulliver is washed ashore after a shipwreck and, upon waking the next morning, finds himself a prisoner of a race of tiny people, less than six inches tall, who are inhabitants of the island country of Lilliput.[5] It is the perceived helplessness of Gulliver when tied down by ropes, confined to the floor and made a prisoner the morning after the shipwreck, as well as the pulling sensation, that are selectively projected onto the blend during the account of pain (Figure 2).

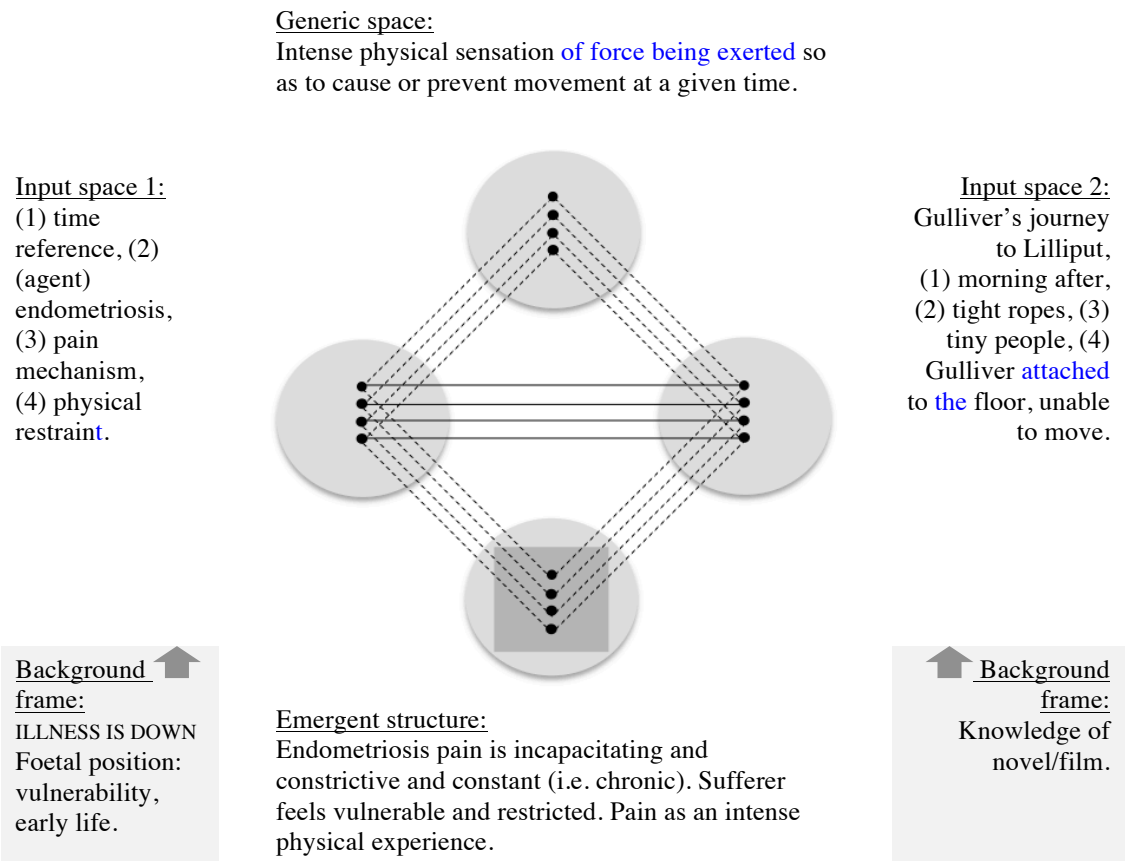

Figure 2. Blended space 1: Intertextuality

As the illustration shows, in the conceptual integration process, the generic space is constituted by the sensation of force being exerted so as to cause or prevent movement at a given time. In the blend, the first input space is formed by recollection of the pain episode, where the woman sees herself lying in a foetal position feeling a strong

unpleasant sensory physical experience caused by an endometriosis pain mechanism that is made akin to being pulled towards a lower location. The schemata around the physical and emotional events during such episodes and the knowledge of the vulnerability or need for protection conveyed by the foetal position serve as background to the blend, as does the conventional understanding of the DISEASE AS LOCATION metaphor whereby ILLNESS IS DOWN (i.e. *'pulling down'*). The pain as a pulling sensation confining the woman to a foetal position also recalls one of the types of PHYSICAL DAMAGE metaphor outlined by Semino (2010) (cf. Table 1), although not lexicalised in the account. The second input space contains the characters in the novel, the people of Lilliput, imprisoning Gulliver by tying him up with ropes attached to stakes on the ground. The input space is informed by background knowledge of the story's plot. The blend inherits its main organising frame from the second input space. The most salient elements from both input spaces are Gulliver being pulled down by ropes manoeuvred by tiny people the morning after the shipwreck and the woman being reduced to a foetal position by the pain as an example of the experience on any given day. She understands the pain mechanism as a pulling sensation (cf. Table 1 above) created by an animate agent within her body (i.e. a group of tiny people). An agent-instrument and/or cause-consequence relationship accounts for the emergent structure at the completion stage. The blended space results from the selective projection of the represented woman's incapacitation and the intertextual reference to Gulliver's imprisonment by ropes staked to the ground. Pain is therefore conceptualised as an intense incapacitating physical experience, reducing the woman to a position of vulnerability and helplessness. The referent to time, 'on a good day' tells us that her

pain is permanent or chronic, that is equivalent to type (b) of endometriosis pain outlined by Bourdel et al. (2015).

A slightly different type of reference framing the account of pain with similar effects is presented in Extract 2, below.

> (2) *I can't describe it, it's so hard to describe it. it's the most primal shitty feeling, it's horrific… the bloodiness and horror of it… visceral deep pain… it's a nightmare* (Interview 21).

This is a different kind of reference, known as interdiscursivity, defined as "the transfer of particular linguistic features that are typical of one discourse or genre to (other) texts" (Koller, 2010, p. 2) which they "reaccentuate, rework and mix in various ways" (Fairclough, 1992, p. 103), for example, involving the discussion of pain by borrowing elements that are characteristic of the genre of horror. In the description, the speaker makes sense of her pain within an alternative conceptual framework containing interdiscursive references to the genre of horror fiction, or The Gothic, which seems to structure the sense-making of her pain. The Gothic fiction genre combines horror and death, and texts are characterised by darkness, negativity and transformation (Botting, 2014). Figure 3 below illustrates how the blend operates in this account of pain.

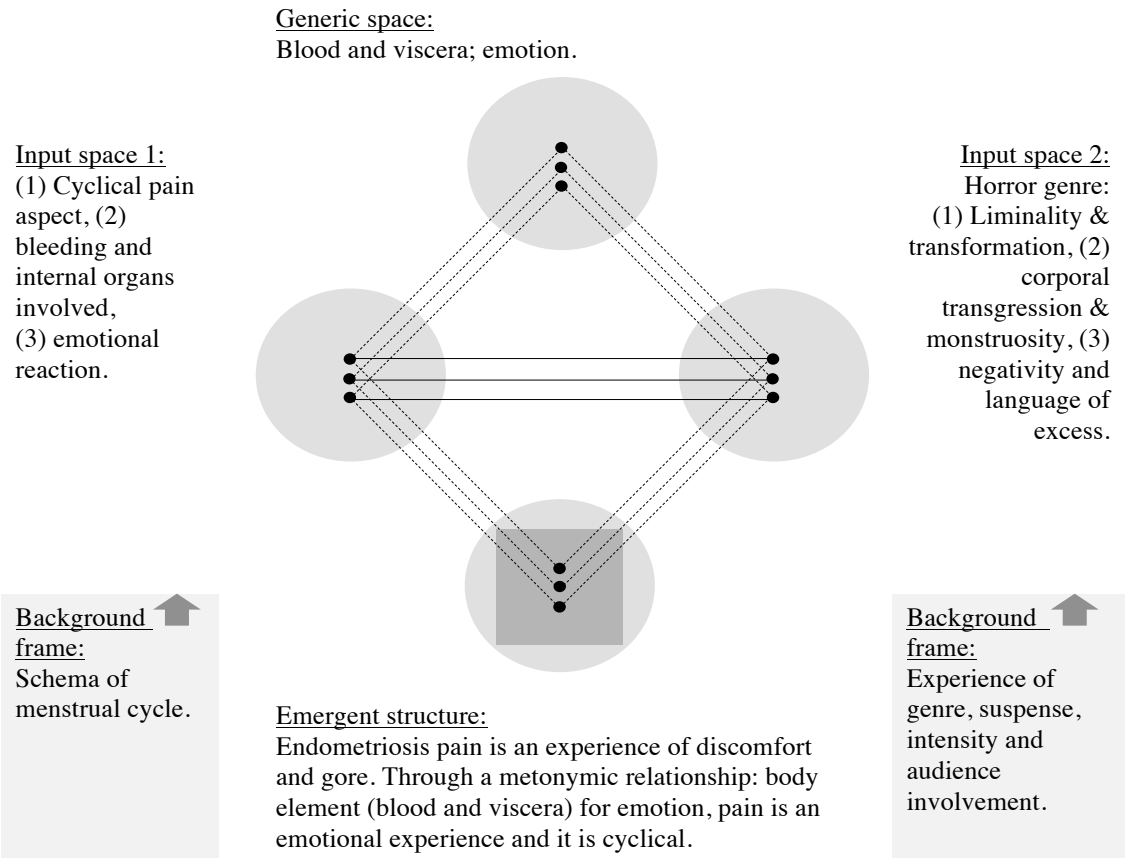

Figure 3. Blended space 2: Interdiscursivity

From the first input space, the blend inherits the cyclical pain mechanism, the bleeding and internal organs affected by endometriosis and extreme emotions (‘horrific’, ‘shitty’, ‘horror’). From the second input space, the blend inherits a frame structure with the compositional elements of the genre of horror or The Gothic, i.e. liminality and transformation (‘nightmare’); corporal transgression and monstruosity (‘bloodiness, visceral’, ‘primal’); and negativity and language of excess (‘shitty’, ‘horrific’) (Aldana-Reyes, 2014; Botting, 2014), as well as schematic knowledge of experience of the genre and audience involvement. In this case, the second input space in the blend is not necessarily anchored to a physical entity (i.e., a particular text or intertext), but rather to a concept (i.e., reference to a particular genre). In the blend, the

cyclical aspect of pain in input space 1, is mapped onto the narrative space conceptualised as a liminal space (i.e. nightmare) in input space 2, the blend inherits the extreme emotions, where the elements involved in the menstrual cycle (i.e. blood and viscera) stand as metonymic elements for the emotional reaction to the pain. The two input spaces share the structure represented in the generic space: blood and viscera and emotions. The networks are linked by analogy of their structure. Furthermore, negative feelings structured by the schematic knowledge of watching horror may also influence the interpretation of the pain experience. The blend gives rise to an emergent structure projecting back to its counterparts in the input spaces whereby endometriosis pain is conceptualised as a primal emotional experience where the body elements and organs metonymically represent the understanding of pain as a horror experience. We therefore see the pain experience as intense and emotional, potentially heightened by hormonal processes, as well as physical. This is also consistent with psychology and neuroscience literature that have found an intrinsic connection between emotions and the pain experience (e.g., Gatchel & Maddrey, 2004; Martucci & Mackey, 2018). But most importantly for the purposes of this study, we also see that the woman relates pain to blood, 'the bloodiness', which also tells us that her pain is cyclical, i.e. during the menstrual cycle, mapped to endometriosis pain type (a) outlined above (Bourdel et al., 2015).

6. Discussion

In this article I have deployed different conceptual tools to analyse endometriosis pain description data collected from online forums and interviews. The collocate analysis in the corpus of online forum data revealed PHYSICAL DAMAGE CAUSED BY A MALEVOLENT

ANIMATE AGENT as recurrent and "stable knowledge structures in long-term memory" (Grady, Oakley & Coulson, 1999. p. 102) in women with endometriosis who contributed to the forum. An examination of individual accounts of pain allowed me to capture the dynamic aspects of women's online representations of pain that enabled them to draw from intertexts in order to generate short-term, yet novel conceptualisations of the pain experience. As such, a conceptual integration approach to the analysis of intertextuality and interdiscursivity affords insights into inferential processes that allow a more comprehensive assessment of the pain experience. In so doing, I gained a deeper and fuller insight into the severity, quality and impact of the pain in these particular women (Morotti et al., 2016). We learnt that for one of the women, the pain was an extreme physical sensation involving a feeling of pressure, which is long lasting, or chronic. For the second woman, we learnt that pain had emotional aspects and that it was mainly cyclical.

I am not, however, suggesting that intertextual references are only found in the interview data; after all, the corpus data have only been subjected to computer-assisted collocate analysis. I have not looked for intertextual references in the corpus data, as the aim of the corpus analysis was to find generic patterns of metaphorical pain descriptors; however, it is worth considering that the very nature of the interview data, which includes storytelling of personal experience, may partly account for the presence of intertextuality and interdiscursivity. Further explorations as to whether other aspects of storytelling can be found in the elicited data might reveal interesting findings, as it would do to explore further the notion of prosody and interpersonal meanings that I briefly touched upon in the previous section.

It may also be the case that audiences do not necessarily trace the connection to the references alluded to. It is worth pointing out that such references relate to well-known stories that most English speakers are likely to have come across. By referencing well-known texts, rather than more specialised texts or less popularised ones, women could be seen to find ways of establishing common ground with the interlocutor and construct "a shared story-world" (Ritchie, 2010, p. 140). The scope of this article does not allow me to focus on the cognitive processes of the interlocutor, but the notion of a shared story-world is an important one worth exploring further when it comes to crucial interlocutors, i.e. doctors or healthcare practitioners, who would need to step into such a frame, understand the assumptions and entailments associated with the characterisation of pain and map it to the endometriosis pain mechanisms available in their encyclopaedic knowledge, in order to assess the pain experience successfully. The alarming diagnosis delay of endometriosis and the extensive body of literature and evidence suggesting communication issues between women and doctors may indeed be indicative of the need to explore this notion of shared story-worlds further. In fact, eliciting stories from patients through open-ended narratives is an emerging practice in narrative communication, which makes this finding particularly pertinent for the practitioner-patient interaction context (Houston et al., 2011).

All in all, metaphorical scenarios referencing popular texts seem to be grounded in the "semiotic experience" of "culturally salient texts"; as such, metaphors are "the product of a specific cultural situatedness of the metaphor producer" (Zinken, 2003, p. 509). They can be seen as being motivated by the speaker's adaptation to a certain cultural structure, which allows for metaphorical choices with a particular communicative aim: that of communicating "experiences of undefined illness in ways

that empirical accounts alone do not" (Overend, 2014, p. 66). From the accounts observed, we see that metaphorical/intertextual accounts, if paid close attention to, "provide a new and helpful perspective" (Demjen & Semino, 2017, p. 396).

5. Conclusions

In this article, I have discussed the fact that endometriosis is characterised by a lengthy diagnosis that severely affects women's lives. I have mentioned that the invisibility and complexity of endometriosis pain lead women to resort to elaborate language tools and step into imaginary scenarios to be able to convey their pain experience. This, however, is not always perceived to lead to successful communication and, more often than not, women report having their pain dismissed and normalised as part of the female condition, due to its association with the menstrual cycle (Bullo, 2019), or even linked to psychological processes such as 'catastrophising' (Gosden, et al., 2014). The deligitimisation of female pain, caused by normalisation and dismissal, and leading to alienation and disempowerment, is widely reported in the medical and social literature (e.g., Bullo, 2018; Culley, et al., 2013; Seear, 2009). The metaphorical patterns of pain identified in this article through the use of Conceptual Metaphor Theory and intertextual analysis testify to such feeling of disempowerment and victimhood, as evidenced by the predominance of the metaphor PAIN AS A MALEVOLENT ANIMATE AGENT inflicting PHYSICAL DAMAGE that causes incapacitating effects and severe emotional and consequences on women and their quality of life.

Each analytical framework deployed in this article has allowed an insight into the accounts of pain that the usual tools used in consultations (e.g., 1–10 scale) reportedly do not capture. The predominance of the PAIN AS A MALEVOLENT ANIMATE AGENT

causing PHYSICAL DAMAGE metaphor clearly indicates the general severity and incapacitating nature of endometriosis pain. Further to this, an insight into the inferential processes afforded by Blending Theory allowed a more detailed exploration of the processes indicating the quality, and potentially mechanisms, as well as the impact of the pain experience. The analysis of the intertextual metaphorical scenarios also shed light on the evaluative and attitudinal values that women attribute to their pain experience (Musolff, 2006).

The co-deployment of the analytical tools to the data sets has therefore proven useful in gaining a more holistic assessment of the endometriosis pain experience, as reported in the medical literature (e.g., Morotti et al., 2016) as well as further attesting to the devastating effect of endometriosis pain on women's lives and revealed the need to invest in pain assessment strategies to help legitimise endometriosis pain (Wright, 2018) in early consultations.

Within the reality of the medical consultation with limited time frames and the requirement of the system to prioritise life-threating conditions, practical solutions are required. The findings reveal that devising tools that consider an integrated account of the pain experience beyond measuring severity (on a 1–10 scale) could be a helpful way forward towards earlier diagnosis. As demonstrated in this article, a number of tools allowing a deeper insight into its conceptualisation, so as to derive clearer indications of pain mechanisms, types and impact, could be of help. For example, a larger sample of pain descriptors including not only metaphorical expressions but also other aspects of storytelling and semantic prosody would allow for a more comprehensive and systematic categorisation of endometriosis pain descriptors. These could be mapped to pelvic pain, as well as endometriosis pain, identified in the medical literature through a

systematic review. In turn, both could contribute towards the development of an integrated toolbox and be made accessible to doctors and patients during initial consultations to aid pain communication and potentially alert suspected endometriosis in a more timely manner.

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Notes

1. Some researchers may consider this a case of 'deliberate' metaphor (e.g., Steen, 2008). The notion of deliberate metaphor is a highly debated one in the metaphor research literature (e.g., Gibbs, 2015; Steen, 2008). However, it is beyond the remit of this article to engage with this debate. As the article's focus is on metaphors used to describe endometriosis pain in a rather small sample where women have been prompted to describe their pain, it is not possible to assume that all similes are used deliberately or not for special rhetorical purposes.

2. It is assumed that most participants are native speakers of the English language. All posts constituting the data set were written between 2012 and summer 2016 and were publicly available to all internet users without login requirements. The estimated number of women contributing to the forums was calculated by counting the average number of entries in each forum with consideration to starters and replies to each post.

3. Available from http://bncweb.lancs.ac.uk.

4. The reader can refer to an image illustrating this scene in the novel by following the link: https://thefablesoup.wordpress.com/2016/02/21/gulliver-in-lilliput-examining-the-allegory/.

Address for correspondence

Dr Stella Bullo
Manchester Metropolitan University
Geoffrey Manton Building
Rosamond Street West

Manchester, M15 6LL
U.K.

s.bullo@mmu.ac.uk

Biographical notes

Dr Stella Bullo is a senior lecturer in Linguistics at Manchester Metropolitan University. Her main research is in the area of discourse analysis. Her current research is in the area of health communication investigating discourses surrounding female pain and gynaecological conditions, and endometriosis in particular, and cross-cultural discourses of health.