Journal of Pragmatics 221 (2024) 168–182

Contents lists available at ScienceDirect

Journal of Pragmatics

journal homepage: www.elsevier.com/locate/pragma

Metaphors in Interaction: Reusing, developing and resisting metaphors of illness, the body and medical treatment in chronic pain consultations

Jana Declercq [a, *], Lotte van Poppel [b]

[a] University of Antwerp, Belgium
[b] University of Groningen, the Netherlands

ARTICLE INFO

Article history:
Received 10 May 2023
Received in revised form 24 October 2023
Accepted 3 January 2024

Keywords:
Metaphors
Health communication
Doctor patient interaction
Interactional sociolinguistics

ABSTRACT

This paper analyses the interactional dynamics of reusing and resisting metaphors of the body, illness and medical treatment in consultations between doctors and chronic pain patients in a pain clinic. Research has evidenced the general importance of metaphors in talk, and in health care settings specifically. Metaphors serve as a way of structuring our reasoning and understanding, including of illness experiences. This is particularly relevant in the case of chronic pain, as these patients are usually expert patients with particular assumptions on their illness, due to the chronic nature of their condition.

However, we know less about how metaphors are taken up and potentially resisted in interaction. We study this by combining conceptual metaphor theory, MIPVU and interactional analysis. We found that metaphors are reused in many different ways, ranging from exact repetitions or very similar rewordings, to extensive metaphorical and literal elaborations, and are sometimes met with different forms of resistance. In our data, how metaphors are taken up is not tied to the metaphors' characteristics, but can mostly be explained by interactional dynamics, often specific to clinical consultations. This shows that not only which metaphors, but when and how they are used, matters when communicating with patients in health care contexts.

© 2024 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

1. Introduction

This paper analyses the interactional dynamics of metaphors of the body, health, illness and medical treatment in pain clinic consultations with health professionals and chronic pain patients. It is well documented which metaphors are conventional in health communication (Bleakley, 2017; Hommerberg et al., 2020; Parsi, 2016; Semino, 2021; Semino et al., 2017; Wackers et al., 2021), and why they are important: they act as framing devices and highlight and background aspects of (illness) experiences. Additionally, they can have both positive and negative effects on patients' understanding of an illness, levels of acceptance, wellbeing, and recognition (Hendricks et al., 2019; Parsi, 2016).

For illness and the body in general, research shows that War ('fighting cancer') and Journey ('step by step', 'a long way to go') metaphors are common in many languages like Dutch and English (e.g., Flusberg et al., 2018; Hanne and Hawken, 2007; Hommerberg et al., 2020; Semino et al., 2017), as well as Sports ('it's a marathon') and Machine metaphors ('the heart is the

* Corresponding author. Grote Kauwenberg 18, 2000 Antwerpen, Belgium.
E-mail addresses: jana.declercq@uantwerpen.be (J. Declercq), l.van.poppel@rug.nl (L. van Poppel).

https://doi.org/10.1016/j.pragma.2024.01.001
0378-2166/© 2024 The Author(s). Published by Elsevier B.V. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

motor', 'the brain is the motherboard') (Coakley and Schechter, 2013; Delbaere, 2013; Munday et al., 2020; Periyakoil, 2008). For pain specifically, pain is often metaphorically represented by drawing on causes of physical damage ('stabbing', 'beating'), or it is constructed as an object, sometimes with its own agency/will ('the pain is following me everywhere', 'I carry it with me every day') (Declercq et al., 2023; Lascaratou, 2007; Loftus, 2011; Munday et al., 2021; Semino, 2010; Söderberg and Norberg, 1995). At the same time, novel metaphors (both in terms of underlying mapping and linguistic expression) are used in health care settings to describe and discuss illness and pain (e.g. THE NERVOUS SYSTEM IS A PERSON in expressions like 'the nervous system is overreacting and needs to be calmed down') (Declercq et al., 2023). For a more extensive discussion of the literature and an overview of the most common metaphors in our data, see Declercq et al., 2023.

However, it is less clear how metaphors emerge, are responded to, reused, and potentially resisted in spoken discourses in general, and specifically in health care contexts. Metaphors are not static, fixed mappings, but can have (temporary) stability in a discourse community - which can range from a large national/language community to a local community of a doctor and a patient (Cameron, 2010; Mathieson et al., 2015; Semino and Demjén, 2017; Tay, 2014). Therefore, the question arises how this temporary stability becomes visible in interaction and how the use of particular metaphors are taken up, reused, potentially resisted or renegotiated, and whether and to what extent metaphors are marked in the interaction by its participants.

This is of particular relevance for chronic pain patients in specialised pain care, for several reasons. First, these patients usually have a lot of expertise due to the chronic nature of their condition (Karazivan et al., 2015), with particular assumptions on their illness, which can also be reflected and constructed in metaphors (Declercq et al., 2023). Second, explaining what chronic pain is, is common practice in pain care, and sometimes formally happens through the use of metaphors (Gallagher et al., 2013; Louw et al., 2016), both by patients and health professionals. Finally, as these patients often have an extensive medical history, they see/have seen many different health professionals that may have diverging perspectives on their condition, and thus may be exposed to a range of potentially conflicting metaphors. We therefore aim to answer the following research questions: *How are metaphors taken up and reused, further developed, and implicitly or explicitly accepted, and/or resisted in interactions in a pain clinic?*

To do so, we will first discuss the literature on metaphor reuse and resistance (Section 2). In Section 3, we introduce our dataset of pain clinic consultations, and our method to identify and categorise metaphor reuse and resistance. We then present our findings (Section 4) and discuss the implications for communicative interactions in the context of chronic pain (Section 5).

2. Metaphors in interaction

In the influential paradigm of conceptual metaphor theory (CMT) (Lakoff and Johnson, 1980, 2003), metaphor is understood as a cross-domain mapping in thought, connecting a (usually) more abstract target domain (TD) with the more familiar, concrete source domain (SD) to facilitate understanding (Gibbs, 2011; Kövecses, 2002). CMT posits that metaphors are omnipresent in people's thinking and that these conceptual metaphors find their way into discourse in various linguistic expressions.

Other researchers have considered metaphors in interaction using a dynamic systems approach (Cameron et al., 2009; Jensen, 2017; Semino and Demjén, 2017). This perspective sees human communication as a complex enterprise that requires coordination of physical, cognitive, affective, interpersonal, institutional, sociocultural, and historical factors, both by individual speakers and between different interlocutors (Semino and Demjén, 2017). It conceptualises metaphors as collaboratively developed, and thus reused and adapted in interaction. In this framework, metaphors are not static, pre-existing mappings, but have "a temporary stability emerging from the activity of inter-connecting systems of socially situated language use and cognitive activity" (Cameron et al., 2009: 63). In this way, particular ways of using metaphorical language that are shared sustainably over time in a discourse community can become inherent to that community. For instance, Semino and Demjén (2017) analysed how on an online cancer forum, the humorous Card game metaphor in utterances like 'playing the cancer card' is used to discuss the hypothetical (and potentially controversial) benefits of having cancer. The metaphor creatively and flexibly develops in its specific and humorous use throughout one of the forum threads, strengthens a sense of community, and possibly contributes to individual wellbeing.

Similarly, Jensen (2017) found examples in couple's therapy data of the reuse of metaphorical patterns. The reuse comes with different linguistic expressions, in which the metaphorical pattern gets extended, and is used creatively to highlight a range of aspects of an emotional state they are discussing through a Transportation metaphor, which clearly functions as a shared understanding of that emotional state. Consequently, as references are repeated, their uses become elliptical and more efficient. This process is called lexical entrainment. Jensen (2017) also looks at the inter-affectivity and how the metaphorical pattern is received, using interaction analysis with a focus on both verbal and non-verbal, bodily communication. This shows that some uses are (more or less) rejected and others accepted. In conclusion, he argues that metaphor is "profoundly tied to its use [...] it is deeply embedded in normative purposes and communicative functions" (p. 275).

As this shows that metaphors are dynamic in interaction and can emerge, become established and also change – organically over time, or because of resistance -, it begs the question how that process of metaphors being received, reused and potentially resisted then exactly takes place in interaction. Several authors have looked at this (Poppel and Pilgram, 2023; Mathieson et al., 2015; Tay, 2014) and have formulated different typologies.

Cameron (2008, 2010) introduces metaphor shifting, which involves reusing metaphors with changes to the vehicle term, the linguistic expression of the source domain used. Cameron (2008, 2010) distinguishes three forms: redeployment,

development, and literalization. Redeployment occurs when a vehicle term is used with a different topic, or target domain. When used with similar topics, the shifting is called vehicle development. There are 4 ways in which the vehicle term can be developed: repetition, relexicalization, contrast, and explication. Repetition involves a straightforward reiteration of the vehicle term in its original or transformed form. Relexicalization and contrast are based on replacing the vehicle term with a synonym or antonym, respectively. The explication of the vehicle term may involve expanding, elaborating, or exemplifying the term (Cameron, 2010). In vehicle redeployment, the vehicle term (or a semantically related term) is reused to refer to a topic distinct from its original use, so with a distinct target domain, resulting in the repurposing of the metaphor. This process has also been described as recontextualization by Semino et al. (2013). The third type of metaphor shift, vehicle literalization, occurs when the vehicle term is used non-metaphorically in reference to the topic, causing the topic to become merged with the vehicle.

Another categorization is introduced by Mathieson et al. (2015). In their study of metaphor co-construction in therapy sessions, they distinguish repetition, rephrasing, clarification, elaboration/extension, and explicit praise of/agreement with the metaphor. Several categories align with those belonging to vehicle development as proposed by Cameron (2008, 2010), with repetition being equivalent, rephrasing corresponding to relexification, and elaboration/extension resembling explication and literalization, which is a separate category in Cameron (2008). Furthermore, Mathieson et al. (2015) also include clarification, where the meaning of the metaphor's vehicle is elucidated, and explicit praise or agreement with the metaphor, which are not considered by Cameron et al. (2009). This last category involves the use of meta-language, such as 'that's a great metaphor!', rather than the actual adaptation of the metaphor in the speaker's language.

Based on therapeutic interactions, Tay (2014) distinguishes two main forms or metaphor reuse: consistency and variability. Consistency is defined as "neighbouring metaphoric expressions which evince pursuit of the inferences/entailments of an introduced source-target association" (p. 108), which resembles vehicle development. Variability is seen as metaphorical expressions either (i) varying in source domain, (ii) varying in target domain, or (iii) as switching between both sources and targets. Variability type i refers to a process often described as reframing (Wicke and Bolognesi, 2020), while type ii resembles Cameron's (2009, 2010) concept of vehicle redeployment and Semino et al.'s (2013) recontextualization.

In sum, to categorise the (re)use and development of metaphors in interaction, three primary categories can be identified: extending the metaphor by utilising the same source and target domains (i.e., metaphor extension/vehicle development), reusing the source domain while altering the target domain (vehicle redeployment/recontextualization/variability ii), and adopting a different source domain while retaining the same target domain (variability i/reframing) (cf. Poppel and Pilgram, 2023; Poppel and Pilgram, forthcoming).

While numerous categorizations of responses to metaphors in literature suggest agreement or convergence among speakers, metaphors may also encounter resistance for various reasons (Wackers et al., 2021). Poppel and Pilgram, 2023 established a typology of resistance to metaphors, differentiating several types of more critical reactions to metaphor in interaction. In this framework, resistance can take four forms: propositional, locutional, personal, or situational. These respectively address the content of the metaphor, the linguistic form, the person conveying the metaphor, or the context in which it is employed. Propositional resistance could for instance entail that the chosen source domain does not fit the target domain for which the metaphor is used due to insufficient correspondences between the domains. Locutional resistance focuses on problematic wording of the metaphor, when considered unclear or distasteful. Personal resistance is aimed at the one expressing the metaphor: this person could be criticised for not being the right person to use a metaphor. For instance, one might find it unacceptable for a patient's family member to use the Card game metaphor mentioned by Semino and Demjén (2017). Situational resistance focuses on the circumstances not being right for using a particular metaphor. A war metaphor, for instance, could be considered problematic in the context of a consultation, due to the potential negative impact on patients (Semino, 2021).

3. Methodology

3.1. Data and background

This paper is based on 16 12- to 75-minute audio-recorded consultations in a Dutch-language, Belgian pain clinic, collected in April–May 2019 by the first author. 6 patients (see Table 1), 3 anaesthesiologists, 1 psychologist and 1 physiotherapist participated. 4 patients were already known in the clinic; 2 were newly incoming patients. All patients had been in some form of care or treatment for chronic pain before. For each patient, with the exception of 2 cases (see Table 1), 3 consultations were audio-recorded. Generally, in all 3 consultations, the same topics were discussed (pain symptoms, diagnoses and treatments, early life, relationships and family, work, activities of daily living), and the same clinical examinations were performed. Patients were informed about the study through an information letter and signed an informed consent form. The study was approved by the Committee for Medical Ethics of the Ghent University Hospital.

Table 1
Overview of participants and data points.

	Diagnosis	Age	Anaesthesio	Psych	Physio	#/patient
P10	Failed back surgery syndrome, neuropathic radicular pain	49	X	X	X	3
P11	General pain	35		X	X	2
P24	Fibromyalgia	57	X	X	X	3
P25	Central neuropathic pain	47		X	X	2
P26	Fibromyalgia	41	X	X	X	3
P27	Fibromyalgia	53	X	X	X	3
TOTAL						**16**

3.2. Method

3.2.1. Identifying metaphors

The current study builds upon a previous study (Declercq et al., 2023,Declercq and van Poppel, 2023) in which we identified all metaphors in the dataset related to the patients' experience of chronic pain . In that study, we employed an adjusted version of MIPVU, the Metaphor Identification Procedure Vrije Universiteit (Steen et al., 2010). This approach marks language as metaphorical if there is incongruity between the contextual meaning of words and their more basic meaning, as defined in corpus dictionaries such as MacMillan. If the incongruity can be resolved through some kind of comparison, the word is considered metaphorical (Steen et al., 2010).

Our adapted version of MIPVU focused on content words (verbs, nouns, adjectives, adverbs) and entire clauses that contained metaphorical language specifically targeting the domains of HEALTH, ILLNESS, PAIN, THE BODY, and MEDICINE. We did so because we were interested in metaphors that in some way or another reflected and constructed the lived experience of being a chronic pain patient, taking a broad perspective on this and including psychological and social dimensions (Declercq et al., 2023; Cheatle, 2016). Since no corpus-based dictionary exists for Dutch, we used a regular Dutch dictionary (VanDale) and sometimes MacMillan dictionary if words had English equivalents (Steen et al., 2010).

Once we identified a metaphor-related word, we coded for speaker (patient, HP or both) and underlying source domain (SD) and target domain (TD). The coding effort was undertaken by three coders in multiple rounds, using Atlas.ti software. Coding was inductive and open, but also iterative as we consulted the literature for existing labels of well-documented metaphorical domains such as source domains like WAR, JOURNEY, or CAUSES OF PHYSICAL DAMAGE. Because of our focus on the illness experience and our inductive approach, some source domains were given a more detailed label than others. For instance, we identified a large amount of metaphors relating PAIN or MENTAL STATE to the source domain of AN OBJECT, but since these objects were ascribed crucial diverging features expressing a different understanding of the target domain, we decided to separately label these subdomains. For instance, we distinguished between the domains of MOVABLE OBJECT, UNMOVABLE OBJECT and RADIATING OBJECT. For more background on this step in the analysis and on the coding process, also see Declercq and van Poppel (2023).

3.2.2. Categorising responses to metaphor in interaction

In this study, we listed all identified metaphors in an inventory, resulting in 487 metaphors relating to illness, pain and treatment. We documented the following for each metaphor:

1. Consultation
2. Speaker
3. Source domain (SD)
4. Target domain (TD)
5. Linguistic expression
6. Response/what followed after the metaphor
7. Whether the SD or full metaphor had been used previously within that consultation, and what the last use was before the current use

Category 6, what happened after the metaphor, was documented inductively by the first author, which was then checked by the second author. We found that metaphors were largely followed by silence, continuers, or a turn without reference to the metaphor. A smaller set of 51 metaphors (of a total of 487 metaphors) were followed by responses that were not merely a

continuer such as mhm/uh-huh or yes, in which the other speaker marks the metaphor use of the original speaker, either implicitly or explicitly. It is the latter category that is the subject of this paper. We made a collection of these cases. In these extracts, we detected 69 developments (as some metaphors were taken up and/or resisted in several ways). As some of these contained repeated, reframed and new metaphors (see below), another 34 metaphors were identified; this resulted in a set of 85 metaphors in total (51 originally selected and another 34 in the extracts). An overview of these 85 metaphors with source and target domain can be found in Table 2.

Table 2
Overview of SDs and TDs of metaphors analysed for this paper.

Source domain	Co-occurring target domains	#
person	nervous system (4), body (4), pain (2)	10
machine	body (1), person (6), nervous system (1)	8
causes of physical damage	pain (7)	7
journey	recovery (5), life (1)	6
unelastic object	body (6)	6
mathematical scale	pain (4), bodily capacity (1)	5
violence	emotion (1), pain (2), moving body (2)	5
object	emotion (3), pain (1)	4
weight	emotion (1), job (1), pain (2)	4
high/low	mental state (3)	3
open/closed	mental state (3)	3
radiating object	mental state (1), pain (2)	3
restricted area	bodily capacity (2)	2
blockage	pain (2)	2
brain	doing a job (2)	2
explosion	illness (2)	2
physical proximity	relationship (2)	2
war	family situation (2)	2
time	treatment (2)	2
competition	health (1)	1
dark/light	emotion (1)	1
economic exchange	pain (1)	1
fragile object	relationship (1)	1
helmet	pain (1)	1
jojo	illness (1)	1
prison	life (1)	1
TOTAL		85

These 51 original metaphors were thus coded for how they were taken up, developed, or resisted. After some exploration of the metaphors in tandem with the literature, we decided to draw on pre-existing frameworks, but inductively further develop them where necessary, as represented in Table 3. After the first coding round, we compared the use of both pre-existing codes and newly developed codes. We refined definitions of existing codes where necessary to increase consistency, and merged different inductively developed codes by choosing one label/term, and developing a definition. We then independently recoded the data, and did another round of comparison to solve the last discrepancies.

Table 3
Coding scheme.

Category	Definition	Source/inductive development or adaptations during coding
explicit agreement/ praise	An interlocutor explicitly agrees with or praises the metaphor used by another interlocutor.	Mathieson et al. (2015)
repetition	The metaphor is repeated identically, as used in the previous turn.	Cameron (2008, 2010) Mathieson et al. (2015). These authors also include repetition with similar words; we follow Cameron (2009) here and only include identical repetitions.
relexicalisation	The same metaphor is expressed with a similar/related word or phrase.	Based on Cameron (2008, 2010). Similar to Mathieson's et al. (2015) category *rephrasing*.
metaphorical elaboration	The same metaphor is used, but additional ramifications and dimensions are explored by extending or modifying it. The linguistic expression can be the same, or related/similar.	Based on Cameron's (2008, 2010) *explication* and Mathieson et al.'s (2015) *elaboration*. We made it more specific during our coding effort to distinguish between metaphorical and literal elaboration (see next row)

Table 3 (*continued*)

Category	Definition	Source/inductive development or adaptations during coding
literal elaboration	teasing out additional ramifications through literal language regarding target domain	New, more specific category developed during our coding effort, but similar to Mathieson et al.'s (2015) *elaboration* and *clarification.*
literal paraphrase	The proposition of the metaphor is explained or repeated in literal language.	New category developed during our coding effort, with some resemblance to Mathieson et al.'s (2015) *clarification.*
reframing	other source domain, same target domain	from framework already previously developed by author
contrast	A contrasting term is used.	Cameron (2008, 2010)
recontextualisation	same source domain, other target domain	Semino et al. (2013); Poppel and Pilgram, 2023
propositional resistance	Metaphorical expression is called out based on the fact that the domain is not represented correctly, or that there are not relevant similarities between domains.	Poppel and Pilgram, 2023
locutional resistance	Metaphorical expression is called out based on the fact that the move is not understandable, e.g., unclear what mappings should be made between domains.	Poppel and Pilgram, 2023
personal resistance	Metaphorical expression is called out based on the fact that the person carrying out the move is not in the right position to do so.	Poppel and Pilgram, 2023
situational resistance	Metaphorical expression is called out because it is not appropriate in its context, and/or has negative consequences.	Poppel and Pilgram, 2023
question-answer frame reuse	Frame from a metaphor used in a question is reused in answer.	New category developed during our coding effort.

3.2.3. Interaction analysis

To further understand each form of metaphor reuse, development and resistance, we explored examples per category using interaction analysis, in the tradition of interactional sociolinguistics (Gumperz and Hymes, 1972) and linguistic pragmatics (Verschueren, 1999). For this paper, we consider both what is said implicitly and explicitly, as well as hesitations, minimal responses, non-verbal communication such as silences and laughter, ellipsis, restarts, et cetera, to gain a better understanding of the participants' ways of doing co-construction, acceptance and resistance in conversation.

4. Results

4.1. Overview of metaphor developments

Our coding process led to the results in Table 4. The most common form of metaphor uptake we encountered was repetition of the same metaphorical expression (16 times). More critical forms of uptake were also observed, such as reframing (7 times) and both propositional (10 times) and locutional resistance (4 times). Three categories were not observed in our data: contrast, personal resistance, and situational resistance.

Table 4
Coding results.

explicit agreement/praise	5
repetition	16
relexicalisation	4
metaphorical elaboration	5
literal elaboration	9
literal paraphrase	7
contrast	0
reframing	7
recontextualisation	0
propositional resistance	10
locutional resistance	4
answer with metaphorical reuse of frame used in question	2
personal resistance	0
situational resistance	0
Total number of developments	69

We took a closer look at each metaphorical expression, and the SD and TD we had assigned to it in earlier stages, to see if there are any specific trends in the results, e.g. that more conventional or more novel linguistic expressions of SD-TD mappings lead to specific developments in reuse and uptake. We did not see many such trends; there are no categories that occur more or less with specific (groups of) SDs or TDs, or with particular linguistic expressions. There was one clear trend for the category reframing: out of 7 cases, 5 were reframings of linguistic expressions of PAIN IS CAUSE OF PHYSICAL DAMAGE. This is

tied to the context: in the medical history taking part of these intake consultations, the anaesthesiologists almost always asked patients to describe the type of pain they experience, often by offering them several options from which the patient can choose or can say yes or no to (e.g. ‘is it burning?’ or ‘stabbing or pressing?’) which is almost exclusively done through PAIN IS CAUSE OF PHYSICAL DAMAGE metaphors in Dutch (also see Section 4.2.8).

However, the fact that there otherwise seems to be no relation to the metaphorical expression itself and how it is taken up or developed seems to indicate that how metaphors are taken up is more related to interactional dynamics, which we will explore in the next section.

4.2. Metaphor in interaction

In this section, we will provide a number of cases, to illustrate each development we detected in our data at least once, and to explore which interactional dynamics then contribute to metaphor reuse and uptake. We will discuss both the categorisations themselves, but also contextualise it in the interactional dynamics of the extract, and if necessary, the consultation more largely. We present both single-case examples (one development in response to a metaphor) and complex cases.

4.2.1. Explicit agreement

In the data, we identified 5 cases of explicit agreement with the metaphor used, all in utterances by patients. In this category, 4 out of 5 instances of explicit agreement are used to signal the patient's and health professional's shared understanding of the patient's illness or pain, e.g. after the use of a BODY IS MACHINE metaphor and a NERVOUS SYSTEM IS PERSON metaphor. The other instance is when a TREATMENT IS JOURNEY metaphor is used, and the explicit agreement similarly seems to confirm the patient and health professional have the same understanding of how to approach treating the pain.

In the following example, we illustrate the first type of explicit agreement, signalling a shared understanding of illness. The doctor uses a jojo simile to explain that for fibromyalgia patients, it is challenging to not overdo themselves when they are feeling relatively good, which usually leads to bad days with a lot of pain.

(1)

1	Dr	enzovoort en dan gaat de van goede naar slechte dagen gelijk een jojo
		and so on and then it goes from good to bad days like a yoyo
		op en [af en dat is op lange]
		up and [down and that's on the long]
2	P	[ja voilà 't is dat dat ik eigenlijk-]
		[*yes exactly that's it that I actually*-]
3	Dr	termijn nooit goed
		term that's never good

The patient has already mentioned earlier in the conversation he recognises the dynamic the doctor has been explaining/describing, and now he explicitly agrees to the comparison with the phrase *‘yes exactly, that's it’*, even before the doctor has finished his turn. The patient thus clearly aligns with the doctor's understanding of the patient's lived experience as a fibromyalgia patient. After this extract, the doctor keeps explaining the dynamics of overburdening the body which can then worsen the pain, to which the patient keeps aligning with this point of view through the use of continuers and echoing the doctor's turns. 3 of the cases of explicit agreement were single-case (no other reuse or uptake of the metaphor); the 1 case that was more complex is discussed in Section 4.2.5.

4.2.2. Repetition

In total, 16 instances of repetition were found in our data. In many of these instances, the metaphor is introduced in a question by the doctor and is then repeated in the patient's answer, sometimes (partly) in overlap. The SDs and TDs in this category are diverse, as well as the stages of the consultation and topics of discussion it occurred in. An example of repetition is found in the following extract, in which the psychologist discusses activities of daily life and family life with the patient:

(2)

1	Psych	en kan je dan (.) ook al voel je die pijn opkomen allez of erger worden
		and can you then (.) also already feel that pain come I mean or get worse
		want ze is er altijd (.) kan je dan toch ook genieten van die wandeling (.)
		because she's always there (.) can you then also enjoy that walk (.)
		of is dat e- een marteling
		or is that a- a torture
2	P	(1.5) mhm soms is dat een marteling he
		(1.5) mhm sometimes that is a torture right

In this intake, the patient already explained before this extract that she suffers from constant pain in her legs and pelvis. She takes painkillers on a daily basis and requests a higher dose during the consultation. The patient also said that she takes walks with her family, but mainly to please them - for her, it usually is painful. In this fragment, the doctor asks the patient in turn 1 to what extent she experiences pain while taking these walks. The doctor does this by presenting two opposite options, namely whether the patient still enjoys such walks or whether they are torture, a metaphor based on the source domain VIOLENCE. This is met by a pause of 1.5s, which likely indicates the patient is thinking. Although a response is not immediate,

it does come in the shape of an *'mhm'* to confirm/accept the second option. She further specifies the confirmation by repeating the metaphor with the same wording in turn 2, and by adding the walks are only torture '*occasionally*'.

4.2.3. Relexicalisation

In the 4 instances of relexicalisation, the speaker uses the same SD as in the original metaphor, but with a different TD or metaphorical expression. In some cases, this was a singular development in metaphor reuse, as in the following example:

(3)

1	partn	want als er een tegenslag is dan is dat vroef [dien diep- dien] dieperik in *because when there is a setback then that is vroom into that deep that deep*
2	Pysch	[direct naar beneden he ja] *[immediately downwards right yes]*

In this extract, the patient's partner is explaining that the patient has a rather pessimistic perspective on life, and is always strongly negatively affected by setbacks. She first uses a sound *'vroef'* as an onomatopoeia that evokes a sliding sound, or the sound of a moving vehicle. She then uses the idiomatic metaphorical expression *'go into the deep'* with the metaphorical expression *'dieperik'*, but first in the unfinished *'that deep-'* (Dutch: '*dien diep*-'), to express that setbacks lead to negative emotions/feelings of depression. As *'diep'* is also just the adjective form of *'deep'* in Dutch, the psychologist already understands the metaphor used here, and in overlap finishes the partner's expression with the phrase *'instantly going down'*. This evokes the same metaphor, but with a different linguistic expression, which is less conventional. The psychologist's uptake of the metaphor may either function as a way of indicating she understood the metaphor and/or to align with the assessment made by the partner. This is also visible in the use of *'hé' ('right')* and *'ja' ('yes')*, acting like question tags anticipating further agreement.

A more elongated exchange in the following example clearly shows how metaphors are interactionally constructed and also adjusted through relexicalisation. In the following extract, the patient is describing the onset/cause of their fibromyalgia.

(4)

1	P	maar de onderrug de ontstekingen die er altijd zijn *but the lower back the inflammations that are always there (.)* (.) zeggen ze dat dat hetgeen heeft wat dat de fibromie heeft laten (.) *they say that that is what has made the fybromyalgia (.)*
2	Phys	[shocken] *[shock]*
3	P	[ontplooien] *[develop]* en euh [ontploffen] *and mhm [explode]*
4	Phys	[mhm] *[mhm]*
5	P	zogezegd [maar dat] *so to speak [but that]*
6	Phys	[ja] *[yes]*

In turn 1, the patient is explaining there was a pre-existing condition of inflammation in his lower back which then turned into fibromyalgia. When he leaves a short pause before filling in the verb slot, the physiotherapist fills it in with the verb '*shock*' (T2), an Explosion metaphor. The patient then also fills in the verb slot in overlap, using the literal verb '*develop*' (T3), but immediately then also adds '*and uhm explode*'. Within a short time frame, two things happen; in overlap, thus simultaneously, the onset of the illness it constructed literally ('*develop*') and figuratively ('*shock*'). These simultaneous constructions differ in terms of framing: while the use of '*develop*' constructs the onset as gradual, the Explosion metaphor constructs it as something that happens suddenly and violently, outside the patient's or anyone else's control. The patient then picks up on this reframed metaphor, and uses a relexicalisation with the even stronger term '*explode*', *w*ith a short delay in the use of *'uhm'*. The physiotherapist uses '*mhm*' as a continuer, possibly indicating alignment, and the patient then marks the metaphor for its metaphoricity with the metalinguistic comment '*so to speak*' (T5), eliciting a more explicitly acknowledging '*yes*' from the physiotherapist (T6). In this case, the relexicalisation thus confirms that the patient aligns with the reframing the physiotherapist has done of the subject of discussion (i.e. the onset of fibromyalgia).

4.2.4. Metaphorical elaboration

Metaphorical elaboration occurred 5 times in our data. 4 of 5 cases are part of interactions in which different forms of metaphor reuse co-occurred, resulting in (more) complex metaphorical negotiation, as illustrated in example (5). The extract starts after the physiotherapist has asked the patient whether she often goes over/beyond her physical limits, which she confirms, followed by this exchange:

(5)

1	Phys	zo geprogrammeerd? *programmed like that?*

2	P	ja. en euh (1.0) hoe noemen ze dat reboosten of niet (2.0) of niet in programmer- *yes and uhm (1.) what do they call that reboosting or not (2.0) or not in programm-* ah nee ah nie- in programmeren zeker *ah no ah no- in programming right*
3	Phys	[euh reboot he] *[uhm reboot yeah]*
4	P	ja 't is dat [he] *yes that's it [right]*
5	Phys	[ja] ja *[yes] yes*
6	P	haha *haha*
7	Phys	is niet zo gemakkelijk he [lik] *is not as easy right [like]*
8	P	[nee] [no]
9	Phys	met een computer *with a computer*
10	P	mhm *mhm*

The negotiation and development of the metaphor starts as the physiotherapist uses a Machine metaphor to ask whether her habit to go beyond her limits is an innate character trait (T1), which the patient confirms with a '*yes*' (T2). This is followed by some joint metaphorical elaboration of this metaphor: in turn 2, after a slight hesitation and a pause, the patient uses the neological linguistic expression '*reboost*'[1] and indicates her uncertainty about whether this is the right term with the metalinguistic question '*what do they call that*'. After another pause, some thinking aloud and a restart, she places the metaphor in the source domain of PROGRAMMING, which is also a repetition of the metaphor. The pauses, hesitations and restarts show that even while the patient is unsure and struggles to find the right wording, she is keen on extending the metaphor. The physiotherapist then brings up the right term '*reboot*' (T3), a thus slightly adapted repetition of the metaphorical elaboration the patient came up with, preceded by an '*uhm*' and followed by a question tag anticipating agreement ('*he*'/'*right*'). This turn indeed is followed by explicit agreement in the form of '*yes that's it right*' (T4), agreement by the physiotherapist (T5) and laughter by the patient (T6), which is similar to example 1, although the way the agreement is reached is more layered.

However, the agreement does not close this sequence of metaphorical elaboration. The physiotherapist's next turn further develops the metaphor through the use of a simile '*it's not as easy as with a computer*' (T7-9), to express that human bodies or characters cannot go through a relatively easy kind of process of being shut off and restarted to solve issues. The patient accepts this metaphorical elaboration with the minimal response '*mhm*', which concludes this sequence as it is followed by a new question by the physiotherapist.

4.2.5. Literal elaboration

Literal elaboration occurred 9 times. The SDs, TDs and linguistic expressions are diverse, and the elaboration both happens in question-answer sequences and in other types of sequences. In the fragment below, we provide an example of the latter. Right before the extract starts, the patient is discussing with the doctor how he presents himself to other people as (not visibly being) a chronic pain patient.

(6)

1	P11	als ik ik bij iemand kom die ik niet ken ja dan vind ik dat ge ge ook zo moet gedragen *If I I encounter someone that I don't know yes that I think you also have to act like that* dat ge ook [moet] *that you also [need]*
2	Psych	[ja] *[yes]*
3	P11	positief beetje [uitstralen] *some positivity [radiate]*
4	Psych	[maar dan kunnen ze] natuurlijk ook niet goed inschatten *[but then they cannot] assess well also, of course*
5	P11	da's [waar] that's [true]
6	Psych	[hoe dat ge gij] goed het heeft (.) 't is alletwee iets voor te zeggen ja *[how that you] good right has (.) there's something to say for both yes* moet u ook niet ge helemaal depressief gaan tonen altijd euh *you should not show yourself as entirely depressed all the time uhm*

The patient argues in turn 1 and 3, using the source domain RADIATING OBJECT, that he should show positivity when encountering new people, with a '*yes*' used as a continuer in turn 2. In turn 4 in which the psychologist responds, she does not take over the metaphorical expression, but uses a contrastive 'but' construction to elaborate on the consequences of the

[1] The term 'reboost' could be a merge between 'reboot' and 'boost', both anglicisms used in Dutch.

metaphorically expressed position of the patient, using literal language referring to the target domain MENTAL STATE. In turn 4, the psychologist first brings up a disadvantage of always trying to radiate positivity: it may make it impossible for people to consider their pain. The patient agrees in turn 5, explicitly marking this as true. However, in turn 6 the psychologist nuances her initial point of view, using literal language by saying that the opposite of the patient's approach, showing that one is depressed, may be undesirable too, and that both ways can be valuable. The elaboration is thus also used to project some resistance and add a new perspective, although eventually the health professional seeks realignment by indicating the patient's strategy may (sometimes) be productive.

4.2.6. Literal paraphrase

Our data contained 7 instances of literal paraphrase, in which a metaphorical expression, using SD terms, is taken up by using terms from the TD. Some of these reflect (the use of) the initial metaphor was not fully understood and needed clarification, but sometimes the topic is just further discussed with a literal term (without any additional ramifications teased out, or expansions of the TD, which would be a literal elaboration in our classification). In the following excerpt, the doctor literally paraphrases the patient's metaphor '*hit on the head*', likely to verify she understood the patient correctly. Before the extract, the patient has just told the psychologist he has been through a depression with suicidal thoughts, and spent 5 months in a psychiatric hospital.

(7)

1	P	euh ja dat was ook een klap op mijn kop natuurlijk he (1.0) *mhm yes that was also a hit on the head of course right (1.0)*
2	Psych	een depressie [dan] *a depression [then]*
3	P	[ja] *[yes]*
4	Psyc	die zwarte gedachten *those black thoughts*
5	P	Ja *yes*
6	Psyc	maar zijt er toch veel sterker uitgekomen *but you have come out of this much stronger*

This patient uses a Violence metaphor ('*hit on the head*') as a conclusion/coda (Labov, 1972: p. 365) to his story about his depression and his stay in the psychiatric hospital (T1). The psychologist seems to be unsure what the metaphor exactly refers to, also indicated by the one-second pause, and uses a literal paraphrase: she asks whether the patient refers to the depression, thus returning to the target domain using literal language (T2). The patient confirms this in turn 3 ('*yes*'). The psychologist then reframes the Violence metaphor (T4): in the linguistic expression *'those black thoughts'*, DEPRESSION is still the target domain, but the SD VIOLENCE is substituted for the SD DARK/LIGHT. Although the initial use of the metaphor required verification of the meaning through a literal paraphrase, the psychologist now draws on it through a reframing. The patient aligns with this through the minimal response *'yes'* (T5). The psychologist comes to another coda/conclusion, albeit a somewhat different one: she states/asks whether the patient has become stronger as a result of (recovering from) the depression, which the patient minimally confirms as well.

4.2.7. Question-answer frame reuse

We found 2 cases in which an answer to a question reused the metaphorical frame of the question. These cases were specific: they concerned the use of the pain scale, and more specifically when a health professional asked the patient to give a score to their pain level, like in this example:

(8)

1	Dr	en om een idee te hebben moest ge dr een euh (.) gemiddelde (.) pijn (.) score cijfer opzetten *and to have an idea if you were to uhm (.) put an average pain (.) score to that* voor de voorbije week *in the past week*
2	P	acht *eight*

4.2.8. Reframing

Reframing occurred 7 times in our data. As discussed earlier, most of these cases (5/7) involved the description of the patient's pain sensation in the medical history-taking part of the consultations. The health professional lists options, usually metaphors referring to physical damage like *gnawing, throbbing, pressing, stabbing*, et cetera, to which a patient responds with yes/no, by repeating an option, or offering their own alternative. Originally, we labelled all of these cases as one general source domain described in Semino (2010) as CAUSES OF PHYSICAL DAMAGE. However, since each different cause has different consequences for how patients experience pain, one could consider each cause as a different subdomain. So although, at the general level, the reframing here is on the level of the linguistic expression, at a more detailed level of subdomains, an alternative perspective to pain is proposed we deem relevant, and therefore we labelled these cases as reframing, too.

A less common case involved the doctor reframing his own metaphor, after the patient has reframed the initial metaphor:

(9)

1	Dr	dus da's dat zenuwstelsel die eigenlijk moet dienen om ons ons te waarschuwen voor problemen *so that is the nervous system which should actually serve to warn us us for problems* die eigenlijk zelf helemaal in de knoop zit *that is actually entirely tangled itself*
2	P	die verstoord is ja *that is disturbed yes*
3	Dr	die verstoord is *that is disturbed*
4	P	ja *yes*
5	Dr	dus overgevoelig gelijk een versterker van een gitaar (.) he *so overly sensitive like the amplifier of a guitar (.) right*

Here, the doctor refers to the patient's nervous system being overreactive as '*tangled',* which is metaphorically used in Dutch to refer to someone who is mentally struggling, unhappy, or unstable. The patient then reframes this metaphor by using *'disturbed'* (T2), a term from the SD PERSON instead of the SD MACHINE, to talk about the same TD NERVOUS SYSTEM, with '*yes'* in final position, indicating that the patient confirms the doctor's assessment. This wording is then literally repeated by the doctor, which also points to alignment/acceptance of the patient's reframing. After another '*yes'* by the patient, the doctor adds another reframing using the phrase '*overly sensitive'*, accompanied by an explicit comparison *'like the amplifier of a guitar',* which both again draw on the SD MACHINE to discuss TD NERVOUS SYSTEM. He introduces his turn with the linking word '*so'* and ends with '*right*' (Dutch '*he*'), indicating he is using this reframing to conclude this set of metaphorical expressions/comparisons.

4.2.9. Locutional resistance

Locutional resistance occurred 4 times in our data. In 2 cases, the locutional resistance occurs when the patient (1 case) or the health professional (1 case) indicates the metaphor is not clear, either through by the contracted interrogative exclamation '*wablief*' ('*(I beg you) pardon'),* or by a claim of no-knowledge. The latter can be found in the following extract. The patient is explaining that his job is physically demanding and thus sometimes increases pain, but that he likes the work and experiences it as fulfilling. The doctor asks to compare pain levels when working and when resting.

(10)

1	Phys	als dat je 't ook verwoordt is dat je dan vaak ietske ah je die cijferkes zou geven *if you give words to it is that then often a bit if you would assign numbers* van 0 tot 10 is dat dan waarschijnlijk wel ietske lager gaat zijn (1.0) *from zero to ten is that then probably will be a bit lower (1.0)* dan wanneer hij daar gewoon in uw zetel zit *then when you are just sitting on your couch*
2	P	(3.0) dat weet ik niet super snel *(3.0) that I don't know that fast*
3	Phys	ja oké doet er niet [toe] *yes okay it doesn't [matter]*

The physiotherapist asks to give the pain a number on a scale from 0 to 10, thus using a mathematical scale metaphor (T1). In this turn, the one-second pause provides a first slot for the patient to answer, but this does not happen, and the physiotherapist brings in a comparison between a resting and working. This is met by a longer pause of three seconds, after which the patient gives a dispreferred answer, saying he doesn't know that right away, i.e. how to score the pain (T2). This is quite explicit in expressing that the use of the scale metaphor is challenging/difficult to understand, or difficult to use for the patient (as pain may be difficult to describe or rate), or both. Even while it is unclear what the patient resists exactly, the doctor responds *'yes okay it doesn't matter',* which seems to be a way of trying to take away the burden from the patient of having to come up with this score. The patient then does try to further explain his point that when he is enjoying himself, he will take on more and is able to deal with the pain better.

In the other 2 cases, the patient's assessment of their own body was explicitly, metalinguistically questioned by the health professional, as follows:

(11)

1	P	'k moet eigenlijk zeggen mijn lichaam ja (.) probeer wel altijd verder te gaan *I actually have to say my body yes (.) try to always go further* maar (.) als 't lichaam stop zegt (.) 'k zijn ook (.) ja- *but (.) if the body says stop (.) I am too (.) yes-*
2	Phys	ge zie dat precies als twee als iets afstandelijk he (.) gij en uw lichaam *you apparently see that as two as something distant right (.) you and your body*

In this extract, the patient uses a BODY IS PERSON metaphor to express how pain signals his physical limitations (T1). In this turn, the metalinguistic comment '*I actually have to say*', micropauses, and the use of '*yes*' may indicate the patient is thinking while speaking, or believes his statement is dispreferred, or both. This leads to the metalinguistic question/comment by the physiotherapist (T2) whether the patient sees his body and his mind or self as two distant things. In this question, the

physiotherapist thus seems to ask for clarification around the metaphor, but the formulation with the use of '*apparently*' ((Flemish) Dutch *precies*) also shows the physiotherapist does not align with the perspective he attributes to the patient. He seems to suggest that the patient's dualistic understanding of the body is (potentially) problematic, which can also be considered to be implicit propositional resistance. The physiotherapist's question is also a form of literal paraphrase in the sense that they switch to the literal domain of the BODY. However, the question does not involve a literal paraphrase of the patient's concrete metaphorical expression, but only the underlying assumption of the BODY IS PERSON metaphor. Interestingly, this happens again in the same consultation, in response to the same metaphor with a similar linguistic expression, which then leads to propositional resistance by the physiotherapist.

4.2.10. Propositional resistance

Propositional resistance is the most common form of resistance in our data, occurring 10 times. It sometimes takes the form of '*no'* (or variations like '*no no (that's not it)*') to a question containing a metaphorical frame; in other cases, there is a repetition that is negated or refuted; or other more unique forms. In the majority of cases (8 occurrences), it occurs after a question by the health professional or as part of negotiations about the type of pain. In only 2 cases, it is the health professional that resists a patient's assessment of their illness that uses a metaphorical frame.

To illustrate this latter form of resistance, we present one longer, complex fragment, which is also the case with the most extensive recurrence and reuse of a metaphor throughout one consultation. In this way, it is an outlier in our data, but how the resistance takes shape and how the participants negotiate the shared meaning of a metaphor is something we observed elsewhere in the data as well. Before we turn to the extract, more context is needed on how the metaphor has been used earlier in the conversation.

For this patient, it seems to be a central concern that as part of his pain experience, his body has become much stiffer/less flexible. The patient expresses this multiple times through a BODY IS AN (IN)ELASTIC OBJECT metaphor, always with the linguistic expression 'a *(stiff) wooden board*' and sometimes accompanied by '*an elastic band*'. These are the first 3 uses of the metaphor by the patient:

(12a)

consultation time	metaphor use
03:36	I used to be an **elastic band**, and now a stiff (wooden) **board**
08:17	They told me you are **stiff as a board** and I used to be an **elastic**
18:42	The sole disadvantage I think is I used to be an **elastic** and now a stiff **board**

The first 2 uses do not elicit any explicit or marked response by the physiotherapist. In response to the third use, the physiotherapist repeats the metaphor, in overlap. After 25 minutes, so 7 minutes after the patient's last use, the physiotherapist is the one to bring up the metaphor, as follows:

(12b)

1	Phys	ja en je zegt ((xxx)) dat je stijve plank zijt *yes and you say ((xxx)) you are a stiff board*
2	P	(.) ja ik [vind dat wel] *(.) yes I [do think so]*
3	Phys	[en waar zie-] en waar merk je dat 't meest *[and where do you see-] and where do you notice that the most*
4	P	als ik als ik nu iets wil oprapen ofzo *if I if I now want to pick something up or so*
5	Phys	[ja] *[yes]*
6	P	[dan] da- ja dat is echt (.) [((xxx))] *[then] tha- yes that is really (.) {xxx]*
7	Phys	[kun je dat 'n keer doen] zo 'n keer naar voor buigen *can you do that once bend forward one time*

In T1, the physiotherapist uses indirect speech to reintroduce the metaphor, attributing this frame/assessment to the patient. Although resistance is not really explicit here, this way of phrasing it does already indicate there is a lack of alignment with the patient's perspective. The patient confirms after a micropause with *'yes I think so'*, expressing a lower epistemic stance than in his previous uses of the metaphor, and taking over the frame introduced by the physiotherapist that this is his point of view. In overlap, the physiotherapist asks to further explain how this lack of flexibility manifests itself in daily life (T3), to which the patient says that picking up things from the floor is such an occasion (T4). After a *'yes'* from the physiotherapist (T5), the patient further extends his point in T6. The physiotherapist then asks the patient to actually bend forward. This almost seems to be an embodied, non-verbal literal elaboration of the metaphor.

Although the physiotherapist does not clearly ratify or fully accept the metaphor used by the patient, there is also no clear resistance to it. However, this is different when the patient brings it up again 33 min into the conversation, so another 6 min after the previous extract:

(12c)

1	P	(.) een plank he *(.) a board right*

2	Phys	(1.0) een plank zou 'k nog niet zeggen een plank beweegt minder dan dat gij doet he *(1.0) a board I wouldn't say a board moves less than you do you know*
3	P	ja [((xxx))] *yes [((xxx))]*
4	Phys	[ja] (.) is dat niet *[yes] (.) isn't that*
5	P	nee *no*
6	Phys	ja van soorten planken [((xxx))] *yes of kinds of boards*
7	P	[ja ((xxx))] *[yes ((xxx))]*
8	Phys	met vroeger zal 't [wel een groot verschil zijn] *in comparison to [before that will be a big difference]*
9	P	dag en nacht *day and night*
10	Phys	ja *yes*
11	P	vroeger he dat dat dat [((xxx))] *before that that that [((xxx))]*
12	Phys	[ja en zijn dr momenten] *[yes and are there moments]* dat je zo minder een plank zijt *that you are less of a board*

This time, the fact that there is a shared understanding of the metaphor is clearly established as the patient now uses the elliptical form *'a wooden board'*, omitting the *'stiff'*, and in the use of tag question expecting alignment '*he*' (right) (T1). The patient thus assumes that it is clear that being a wooden board entails a lack of flexibility. This time, the physiotherapist explicitly resists this proposition (T2), with a metalinguistic comment *'I wouldn't say that'*, thereby denying that the patient is comparable to a wooden board. The resistance and lack of alignment is also marked by a 1-s pause preceding this comment. The physiotherapist then uses a metaphorical elaboration to support his resistance, expressing that the patient is much more flexible than a wooden board, and that there are kinds of board - implyings some types of wood are more flexible than others. The patient aligns with this through a *'yes'* (T3). The physiotherapist then mitigates his resistance by saying that the patient probably was much more flexible before (T4-8), thus seeking realignment about the lack of flexibility, although using a different framing of flexibility, i.e. as gradable. The patient confirms this through a form of an extreme case formulation '*day and night*' (T9), which is followed by an aligning '*yes*' by the physiotherapist (T10). The patient launches a comparison about the past and the current situation (T11), but the physiotherapist in overlap inquires about when the patient is '*less of a board*'. The physiotherapist here frames the question drawing on the shared understanding of the patient's flexibility, and once more returns to the metaphor through a metaphorical elaboration, to inquire which factors influence the patients' or pain levels, and what makes patients have a particularly good or bad day. This is a standard question in the intake, and, interestingly, the physiotherapist creatively does this by reusing an established but also already adapted metaphorical understanding. At the same time, the question further adapts the metaphor: (the lack of) flexibility is now framed as something that can differ on a daily basis, depending on a number of factors, and thus not a static state of being.

5. Discussion and conclusion

This paper explored how metaphors relating to pain, illness and medicine are responded to, taken up and further developed in interactions between health professionals and chronic pain patients, based on 16 consultations collected at a Belgian pain clinic. We identified 51 metaphors that had some kind of verbal response beyond continuers such as *'uh-huh/mhm'* and *'yes' or turn that did not draw on the metaphor in the initial turn*, and then categorised each development in the subsequent interaction.

We found that there are diverse forms of uptake, and there is mostly one development per metaphor, and sometimes multiple ones per metaphor. The data indicates that in general, this is not specifically tied to the metaphor's characteristics (e.g. particular SDs, TDs, or linguistic expressions, novelty or conventionality, et cetera). The one exception here is the category of reframing (7 cases), which mostly concerned reframing of linguistic expressions of PAIN IS A CAUSE OF PHYSICAL DAMAGE.

The trends that can account for the prevalence of particular categories, or diversity within categories, are largely tied to interactional dynamics, often specific to the context of medical consultations. For instance, propositional resistance occurs in the majority of cases after a question by the health professional or as part of negotiations about the type of pain. That also means that, as the question format leaves room for bringing up their own perspective as a patient, the resistance is on the propositional level, and interactionally not necessarily delicate. It is also the question-answer format (in which the HP asks the question) that largely accounts for the prevalence of repetition, as it is often a metaphor that is part of a question by the health professional (sometimes in the format of several options they patient can choose from, e.g. in negotiations of types of pain) that the patient repeats in their answer. Other repetitions seem to be tied to the fact that HPs are taking notes in the patient's record, and verbalise what the patient has said while typing - which can also serve as a check of the HP's

interpretation of what they are inserting in the patient's record. Additionally, explicit praise and agreement always comes from patients in our data - this is a small category, but the examples suggest patients find it important to explicitly mark health professionals' metaphors that capture their illness experience particularly well. Finally, in complex cases with multiple forms of uptake or development, the most prevalent combination is repetition co-occurring with a form of elaboration, and then sometimes also followed by resistance or reframing.

In general, the majority of the forms of uptake we observed reflect a seamless uptake of the metaphors (e.g. repetition, relexicalisation) or even a solid shared understanding of the metaphors that allows for further developing or extending it (e.g., metaphorical and literal elaboration, reframing). Only a minority of developments include requests for clarification (e.g., some cases of literal paraphrase), or indicate uncertainty on the side of the hearer about the appropriateness or efficacy of the metaphor (locutional resistance).

For metaphors specifically in the context of pain discourses, our data show that many are silently accepted or not responded to (as the larger data set consisted of 487 metaphors in total), but that there is room for negotiation, explicit agreement or (implicit) resistance when talking (metaphorically) about pain. In the cases of (re)negotiation or resistance, sometimes a fundamentally different perspective is taken (e.g. examples 4, 11, 12), or additions/slight adaptations are made (examples 6, 7). If we look at the metaphors in our subset, we see a mixture of conventional pain and illness metaphors, and more novel, sometimes unique ones (see Table 2). When considering these metaphors' frequency, a similar distribution for the most common ones is visible in the subset and the whole set (Declercq et al., 2023).

This analysis has important implications for our understanding of metaphors in interaction, and specifically in health care contexts. Some researchers have specifically problematised certain source domains or metaphors (e.g., War metaphors) as potentially confusing and/or stigmatising, although recent evidence shows that how metaphors are taken up is complex and contextual (see Introduction). Our findings also point to this, and specifically for medical consultations and other contexts of oral exchange with patients, also to the importance of the interactional dynamics (e.g., question-answer formats). Albeit only a small number, we found instances of HPs and patients using strategies to check whether they understood a metaphor correctly. Of course, this latter point requires caution: based on interactional data, we cannot get access to the times an interlocutor did struggle to understand a metaphor and did not mark this in some way, and just let the moment pass. On the other hand, in the many instances some form of extension or development took place, we did not find any cases of uptake in which either interlocutor further developed a metaphor in a way that seemed to express a very different, incompatible or contradictory understanding of the metaphor in question. Also, we found only one example of a longer, more complex negotiation in which a metaphor was (intermittently) negotiated and resisted throughout the entire consultation (i.e. the wooden board/elastic band case).

Methodologically and theoretically, our paper also shows the importance of analysing metaphors in spoken interaction (especially in the medical context), and, when doing so, conceptualising them as dynamic and socially constructed. By having tested and further inductively developed existing categorisations, we hope we contribute to an analytical framework to do so. At the same time, we believe our approach is still compatible with key concepts for CMT, and with the common practice of labelling metaphors in terms of and SD and TD.

Finally, this study has a number of limitations, and further research is needed. It is based on data in a specific context - a Belgian pain clinic, with a rather homogeneous group of participants, both in terms of medical expertise (for the health professionals) and diagnosis and medical history (for the patients), and in terms of linguistic and sociocultural background. More diversity in all these aspects may uncover more or other trends in metaphor uptake, reuse and development. Moreover, we only studied metaphors relating to illness, the body and treatment. Additionally, for reasons of scope, we did not systematically break down differences between patients and health professionals. More research is needed to further gain insight into potential differences between these two groups. Finally, we focused on the local/direct uptake of metaphors in response to their initial use. We have not looked at reuse and uptake of metaphorical expressions in consultations more largely.

Declaration of competing interest

The authors report no conflict of interest. This research was funded by the National Research Council (NWO), grant number VI.Veni.201T.003.

Data availability

The data that has been used is confidential.

References

Bleakley, A., 2017. Thinking with Metaphors in Medicine. Routledge.

Cameron, L., 2008. Metaphor shifting in dynamics of talk. In: Zanotto, M.S., Cameron, L., Cavalcanti, M.C. (Eds.), Confronting Metaphor in Use: An applied Linguistics Approach (45-62). Benjamins, Amsterdam.

Cameron, L., 2010. The discourse dynamics framework for metaphor. In: Cameron, Lynne, Maslen, Robert (Eds.), Metaphor Analysis: Research Practice in Applied Linguistics, Social Sciences and the Humanities. Equinox, pp. 77–94.

Cameron, L., Maslen, R., Todd, Z., Maule, J., Stratton, P., Stanley, N., 2009. The discourse dynamics approach to metaphor and metaphor-led discourse analysis. Metaphor and Symbol 24 (2), 63–89. https://doi.org/10.1080/10926480902830821.
Cheatle, M.D., 2016. Biopsychosocial approach to assessing and managing patients with chronic pain. Med. Clin. North Am. 100 (1), 43–53. https://doi.org/10.1016/j.mcna.2015.08.007.
Coakley, R., Schechter, N., 2013. Chronic pain is like… the clinical use of analogy and metaphor in the treatment of chronic pain in children. Pediatr. Pain Lett. 15 (1), 1–8.
Declercq, J., van Poppel, L., 2023. Coding metaphors in interaction: a study protocol and reflection on validity and reliability challenges. Int. J. Qual. Methods 22, 1–9. https://doi.org/10.1177/16094069231164608.
Declercq, J., van Poppel, L., Velvis, T., 2023. Machines, journeys, prisons and yo-yos: Metaphors of pain, illness and medicine in consultations with chronic pain patients. Soc. Sci. Med. 330, 116043. https://doi.org/10.1016/j.socscimed.2023.116043.
Delbaere, M., 2013. Metaphors and myths in pharmaceutical advertising. Soc. Sci. Med. 82, 21–29. https://doi.org/10.1016/j.socscimed.2013.01.020.
Flusberg, S.J., Matlock, T., Thibodeau, P.H., 2018. War Metaphors in public discourse. Metaphor and Symbol 33 (1), 1–18.
Gallagher, L., Mcauley, J., Moseley, G.L., 2013. Randomized-controlled trial of using a book of metaphors to reconceptualize pain and decrease catastrophizing in people with chronic pain. Clin. J. Pain 29 (1), 20–25.
Gibbs, R.W., 2011. Evaluating conceptual metaphor theory. Discourse Process 48 (8), 529–562. https://doi.org/10.1080/0163853X.2011.606103.
Gumperz, J., Hymes, D., 1972. Directions in Sociolinguistics: the Ethnography of Communication. Rinehart and Winston, Holt.
Hanne, M., Hawken, S.J., 2007. Metaphors for illness in contemporary media. Med. Humanit. 33 (2), 93–99. https://doi.org/10.1136/jmh.2006.000253.
Hendricks, R.K., Demjén, Z., Semino, E., Boroditsky, L., Hendricks, R.K., Demjén, Z., 2019. Emotional implications of metaphor: consequences of metaphor framing for mindset about cancer. Metaphor Symbol 33 (4), 267–279. https://doi.org/10.1080/10926488.2018.1549835.
Hommerberg, C., Gustafsson, A.W., Sandgren, A., 2020. Battle, Journey, Imprisonment and Burden: patterns of metaphor use in blogs about living with advanced cancer. BMC Palliat. Care 19 (1), 1–10. https://doi.org/10.1186/s12904-020-00557-6.
Jensen, T.W., 2017. Doing metaphor: an ecological perspective on metaphoricity in discourse. In: Hampe, B. (Ed.), Metaphor: Embodied Cognition and Discourse, 1st edn. Cambridge University Press, pp. 257–276. https://doi.org/10.1017/9781108182324.015.
Karazivan, P., Dumez, V., Flora, L., Pomey, M.-P., Del Grande, C., Ghadiri, D.P., Fernandez, N., Jouet, E., Las Vergnas, O., Lebel, P., 2015. The patient-as-partner approach in health care: a conceptual framework for a necessary transition. Acad. Med. 90 (4), 437–441. https://doi.org/10.1097/ACM.0000000000000603.
Kövecses, Z., 2002. Metaphor: A Practical Introduction. Oxford University Press.
Labov, W., 1972. Language in the Inner City. University of Pennsylvania Press.
Lakoff, G., Johnson, M., 1980. Conceptual metaphor in everyday language. J. Philos. 77 (8), 453–486.
Lakoff, G., Johnson, M., 2003. Metaphors We Live By. The University of Chicago Press.
Lascaratou, C., 2007. The Language of Pain. John Benjamins.
Loftus, S., 2011. Pain and its metaphors: a dialogical approach. J. Med. Humanit. 32 (3), 213–230. https://doi.org/10.1007/s10912-011-9139-3.
Louw, A., Zimney, K., Puentedura, E.J., Diener, I., 2016. The efficacy of pain neuroscience education on musculoskeletal pain: a systematic review of the literature. Physiother. Theory Pract. 32 (5), 332–355. https://doi.org/10.1080/09593985.2016.1194646.
Mathieson, F., Jordan, J., Carter, J.D., Stubbe, M., 2015. The metaphoric dance: Co-construction of metaphor in cognitive behaviour therapy. Cogn. Behav. Ther. 8, e24. https://doi.org/10.1017/S1754470X15000628.
Munday, I., Kneebone, I., Rogers, K., Newton-John, T., 2021. The language of pain: is there a relationship between metaphor use and adjustment to chronic pain? Pain Med., pnaa467 https://doi.org/10.1093/pm/pnaa467.
Munday, I., Newton-John, T., Kneebone, I., 2020. 'Barbed wire wrapped around my feet': metaphor use in chronic pain. Br. J. Health Psychol. 25 (3), 814–830. https://doi.org/10.1111/bjhp.12432.
Parsi, K., 2016. War metaphors in health care: what are they good for? Am. J. Bioeth. 16 (10), 1–2. https://doi.org/10.1080/15265161.2016.1221245.
Periyakoil, V.S., 2008. Using metaphors in medicine. J. Palliat. Med. 11 (6), 842–844. https://doi.org/10.1089/jpm.2008.9885.
Poppel, L. van, Pilgram, R., 2023. Types of resistance to metaphor. Metaphor Symbol 38 (4), 311–328. https://doi.org/10.1080/10926488.2023.2213737.
Poppel, L. van, Pilgram, R. (forthcoming). Exploiting metaphor in disagreement. *J. Lang. Aggres. Confl.*
Semino, E., 2010. Descriptions of pain, metaphor, and embodied simulation. Metaphor and Symbol 25 (4), 205–226. https://doi.org/10.1080/10926488.2010.510926.
Semino, E., 2021. "Not soldiers but fire-fighters"—metaphors and Covid-19. Health Commun. 36 (1), 50–58. https://doi.org/10.1080/10410236.2020.1844989.
Semino, E., Deignan, A., Littlemore, J., 2013. Metaphor, genre, and recontextualization. Metaphor and Symbol 28 (1), 41–59. https://doi.org/10.1080/10926488.2013.742842.
Semino, E., Demjén, Z., 2017. The cancer card: metaphor, intimacy, and humor in online interactions about the experience of cancer. In: Hampe, B. (Ed.), Metaphor: Embodied Cognition and Discourse, 1st edn. Cambridge University Press, pp. 181–199. https://doi.org/10.1017/9781108182324.011.
Semino, E., Demjén, Z., Demmen, J., Koller, V., Payne, S., Hardie, A., Rayson, P., 2017. The online use of Violence and Journey metaphors by patients with cancer, as compared with health professionals: a mixed methods study. BMJ Support. Palliat. Care 7 (1), 60–66. https://doi.org/10.1136/bmjspcare-2014-000785.
Söderberg, S., Norberg, A., 1995. Metaphorical pain language among fibromyalgia patients. Scand. J. Caring Sci. 9 (1), 55–59. https://doi.org/10.1111/j.1471-6712.1995.tb00266.x.
Steen, G., Dorst, A.G., Herrmann, J.B., Kaal, A., Krennmayr, T., Pasma, T., 2010. A Method for Linguistic Metaphor Identification. Benjamins, Amsterdam.
Tay, D., 2014. At the heart of cognition, communication, and language: the value of psychotherapy to metaphor study. Metaphor Soc. World 4 (1), 48–64. https://doi.org/10.1075/msw.4.1.03tay.
Verschueren, J., 1999. Understanding Pragmatics. Holder Education.
Wackers, D.Y., Plug, H.J., Steen, G.J., 2021. "For crying out loud, don't call me a warrior": standpoints of resistance against violence metaphors for cancer. J. Pragmat. 174, 68–77.
Wicke, P., Bolognesi, M.M., 2020. Framing COVID-19: how we conceptualize and discuss the pandemic on Twitter. PLoS One 15 (9), e0240010.

Jana Declercq is an Assistant Professor of Discourse and Communication at the University of Groningen. She teaches at the MA Communication and Information Studies. She is interested in discourses of health and illness, both in mass and social media texts, and in clinical contexts. She is currently working on a project on discursive perspectives in the body and illness in chronic pain consultations.

Lotte van Poppel is an Assistant Professor in Speech Communication and Discourse Analysis at the University of Groningen. She teaches in the BA and MA Communication and Information Studies and Dutch Language and Literature. In her research, she investigates the use of argumentation and other persuasive strategies in several argumentative settings, such as communication aimed at behavioural change. In recent research, she investigates how metaphors can be used in argumentation and in what ways metaphors may evoke resistance.