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# Becoming frail: A more than human exploration

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## Abstract

‘Frailty’ is increasingly used as a clinical term to refer and respond to a particular bodily presentation, with numerous scores and measures to support its clinical determination. While these tools are typically quantitative in nature and based primarily on physical capacity, qualitative research has revealed that frailty is also associated with a range of social, economic and environmental factors. Here, we progress the understanding of frailty in older people via a new materialist synthesis of recent qualitative studies of frailty and ageing. We replace a conception of frailty as a bodily attribute with a relational understanding of a ‘frailty assemblage’. Within this more-than-human assemblage, materialities establish the on-going ‘becoming’ of the frail body. What clinicians refer to as ‘frailty’ is one becoming among many, produced during the daily activities and interactions of older people. Acknowledging the complexity of these more-than-human becomings is essential to make sense of frailty, and how to support and enhance the lives of frail older people.



## Keywords

ageing, becoming, Deleuze and Guattari, frailty, new materialism



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## Introduction

Frailty is increasingly used in clinical settings to categorise certain bodies. In the clinical literature, this development has generally been considered as a positive attempt to: manage an ageing population and its complex health needs; predict adverse outcomes; reduce preventable hospitalisation; and aid clinical decision-making (Lee et al., 2015: 227; Rahman, 2018). While there is no formally agreed definition of the clinical use of frailty (Tomkow, 2020: 697), it is generally regarded as a diffuse physiological state that – as Campbell and Buchner (1997: 315) have suggested derives from 'a multi-system reduction in reserve capacity', leading to decline or failure of physiological systems. Despite lack of formal definition, a growing range of tools, measures and indexes are now applied in clinical settings to assess an individual for frailty (Fried et al., 2001; Gilbert et al., 2018; Rockwood et al., 2005).

Against this clinical back-cloth, various studies by both social scientists and those involved in care and support for older people have criticised the term 'frailty' and the psychological and social consequences for those so labelled (Age UK, 2015; 7; Grenier and Hanley, 2007: 224). Qualitative studies have shown that frailty is generally considered to be a stigmatised term that older people resist (Cluley et al., 2021; Warmoth et al., 2016: 1492). Within a predominantly social constructionist literature, frailty has been described as a liminal category (Nicholson et al., 2012) and an 'un-becoming' whereby categorisation removes agency (Gilleard and Higgs, 2011: 477). Where, biomedical approaches to frailty privilege the biological and physical over the social and psychological, constructionist perspectives reflect the converse inclination, emphasising sociocultural effects upon what a body can do, while downplaying the physical and physiological aspects of ageing (Cluley et al., 2020).

Our concern in this paper, and our motivation to engage with this topic, derives from a perceived need to transcend or cut across this oppositional duality between biomedical and social perspectives. We acknowledge that ageing may be associated with limits on what a body can do, both physiologically and socially, and that often these constraints may be overcome by a mix of clinical and social intervention. Informed by new materialist ontologies (Braidotti, 2013; Coole and Frost, 2010), we start from the premise that bodies are foundationally material, but that this materiality is relational and contextual, as opposed to essential and stable. Furthermore, bodies are always caught up in material assemblages that comprise both human and non-human matter, and consequently are also always in a state of 'becoming'.

Here, we draw upon new materialist approaches to social inquiry (most specifically, the conceptual toolkit of Deleuze and Guattari), to explore the more-than-human and material production of 'frailty' in human bodies, and the 'affects' and 'in/capacities' that establish what we shall call a micropolitics of frailty/becoming. Thinking about frailty from a more-than-human and contextual perspective enables its complexity to be repositioned as neither an objectivised, bodily experience nor the product of dominant social or structural discourses. Instead, the ageing body may be acknowledged as a complex, fluid, relational and changeable – *becoming* as it interacts with its physical and sociocultural environment from moment to moment.

We undertake a new materialist synthesis, re-analysing interview extracts from a range of clinical and social science texts that explored older peoples' experience and

understanding of frailty. Using a new materialist ontology of assemblages and affects (terms fully explained later in the paper), we draw out the range of more-than-human influences upon bodies ageing into frailty, the ways these affect bodies and the in/capacities produced. This allows us to ask 'what can a frail body do?' (Fox, 2005) and what may it become? Prior to presenting the data analysis, we first offer a parsimonious review of the frailty literature, set out an ontological and conceptual framework for new materialist inquiry and then outline a methodology to analyse the empirical data. We conclude the paper with a discussion of the opportunities and added-value deriving from this new materialist analysis of frailty and its antithesis: *becoming*.

## 'Frailty': A literature review

As noted in the introduction, despite a burgeoning clinical literature on 'frailty', there is as yet not a universally-accepted definition (Pickard et al., 2019). This proliferation of clinical concern derives from the growing challenges ageing populations present for clinicians and policy-makers, with older people 'presented as a cost, threat or challenge to the economic sustainability of state health services' (Tomkow, 2020: 697). Clinicians have responded to this challenge by developing a series of tools, measures and indices to assess older people's functional capacities (Clegg et al., 2016; Fried et al., 2001; Gilbert et al., 2018; Rockwood et al., 2005).

Fried et al.'s (2001) approach positions frailty as a phenotype (in other words, how it manifests in terms of functional capabilities). To be classified as frail, individuals must display three or more phenotypic characteristics: reduced gait speed, unintended weight loss, reduced strength, low energy and self-reported exhaustion (Fried et al., 2001: M148). By contrast, the Rockwood et al. (2005) tool addresses cumulative deficit, including a wide range of physical and mental characteristics, conditions and diseases such as hearing loss, dementia, tremor, low body weight and delirium. For something to be considered a deficit, it must be age-related, ongoing and associated with poor outcome. The more deficits an individual displays, the more likely they are to be frail; the further an individual is in their life course, the more deficits they are likely to have accumulated (Rockwood et al., 2005: 491).

In both models, frailty is considered a syndrome manifesting as an individual bodily presentation, emphasising the extent to which an ageing body diverges from a normative definition of human functioning. Hence, Lee et al. (2015: 230) suggest that frailty is a 'confluence of medical and geriatric conditions and disabilities, as well as socioeconomic circumstances, that puts many elderly patients at greater risk of health destabilization'. This biomedicalised and essentialist perspective on ageing bodies has been subject to extensive criticism from both social scientific and medical sources (Gilleard and Higgs, 2011; Grenier et al., 2017, 2020; Nicholson et al., 2017; Pickard, 2014; Rahman, 2018). Frailty, Grenier (2020: 71), argues,

> is not only a marker of illness, decline or a period of the life course where one is 'closer to death'. Frailty is also a set of discourses and practices that have emerged in tandem with contemporary ideas of autonomy and individual responsibility.

For Tomkow (2020), the contemporary emergence and utilisation of frailty represents a 'biopolitical practice' associated with neoliberalism and austerity, while Higgs and Gilleard

(2014: 17) suggest it is part of a ‘social imaginary of old age’. In his critique of frailty theory and practice, Rahman (2018: 10) calls for a more holistic understanding of ageing that takes into account a range of demographics, along with psychological and sociocultural alongside physiological factors.

Empirical social scientific studies have sought to reposition the clinical discourse, often exploring older people’s perspectives and experiences of frailty, typically locating their analysis within a social constructionist/post-structuralist perspective (Age UK/British Geriatrics Society/Britain Thinks, 2015; Grenier and Hanley, 2007; Nicholson et al., 2012; Puts et al., 2009; Schoenborn et al., 2018; Warmoth et al., 2016). These studies acknowledge the recurrent rejection of the term ‘frailty’ by older people and the explicit association with a stigmatised way of being (Cluley et al., 2021; Schoenborn et al., 2018: 6; Warmoth et al., 2016: 1492), suggesting that ‘frailty services’ could be off-putting for older people (Age UK/British Geriatrics Society/Britain Thinks, 2015: 9, Schoenborn et al. 2018).

Higgs and Gilleard (2014: 10) contrast a positive discourse of the ‘third age’ (that has positioned older people as useful contributors to society and lifestyles) with a ‘fourth age’, which they describe as a ‘negatively developed social imaginary’ of ‘real old age’, whose inhabitants are stripped of agency, capacity and humanity. Recent research by the first author suggests that many older people regard frailty in these latter terms (Cluley et al., 2021). Grenier et al. (2017) link the discourse of the fourth age to the consequent construction of ‘failed’ old age, while Warmoth et al. (2016) identify a ‘frailty identity’ that carries negative connotations concerning physical decline and vulnerability. Resistance to the term frailty has been linked to an association with stigma (Cluley et al., 2021), precarity (Grenier et al., 2017, Grenier, 2020) and dependency (Gilleard and Higgs, 2011; Grenier et al., 2017; Pickard 2014).

While social science explorations of frailty have revealed both the disquiet with, and resistance to the term among older people and their carers, and the broader social significance for policy and practical responses to ageing populations, we consider that further analytical work is required to make sense of the material production of ‘frailty’. Biomedical approaches to frailty have emphasised the biological and physical attributes of ageing and infirmity over social and experiential aspects. By contrast, social scientific perspectives may be criticised for reversing this privilege, elevating sociocultural factors and downplaying the physical and physiological aspects of ageing. In this paper we wish to challenge this opposition, to bringing the materiality of the ageing body back to centre stage. In the following section, we apply a new materialist perspective to this task.

## A new materialist ontology of older bodies

Feminist and post-structuralist scholarship revealed that in post-Enlightenment culture, the ‘human’ – against which everything else was to be assessed physically and morally – turned out to be white, male, able-bodied and exploitative of other life-forms (Braidotti, 2011: 82). The move beyond the anti-humanism of this revelation to a posthumanist philosophy and ontology has been, for feminists such as Donna Haraway and Rosi Braidotti, founded on the acknowledgement that (post)humans are not separate from, but an intrinsic part of the material world, and that all matter – animate and inanimate

– has vital, self-organising capacities (Bennett, 2010; Braidotti, 2013: 49. Haraway, 1997: 270).

In this section we frame our analysis of frailty within this core posthumanist/new materialist insight, alongside the re-making of ontology within the new materialisms (Fox and Alldred, 2017; Coole and Frost, 2010) – drawing particularly on the work of Deleuze (singly and in collaboration with Guattari). The new materialisms recognise materiality as plural and complex, uneven and contingent, relational and emergent (Coole and Frost, 2010: 29). They consider the world and history as produced by a range of material forces in the here-and-now that extend from the physical and the biological to the psychological, social and cultural (Barad, 1996: 181; Braidotti, 2013: 3).

We come to our re-analysis of frailty via Deleuze's (1988) and Deleuze and Guattari's (1984, 1987) 'zig-zag' ontology. This is premised on the rejection of essentialism and 'the one' (Deleuze and Guattari, 1987: 23), in favour of multiplicity, change and relational becoming. Matter is not static: rather it is fluid and changeable, contingent upon its relationships with other matter. Things/experiences/bodies are always caught up in *assemblages*, affecting and being affected by multiple other elements. Such assemblages are imbued with potentiality, specifically the potential to create, produce and change.

This new materialist ontology re-constructs the conceptual landscape of humanist social inquiry. First, it addresses materiality across the nature/culture divide. Matter includes elements as disparate as organic bodies, physical things, spaces and places and material forces including gravity and time (Fox and Alldred, 2017: 25–26). Also included may be abstract concepts, human constructs and human epiphenomena such as imagination, memory and thoughts: though not themselves 'material', such elements have the capacity to produce material effects (Barad, 2007: 152; Braidotti, 2013: 3).

Second, by rejecting a distinction between natural and social worlds, the new materialisms open up the possibility to explore how each affects the other, and how things other than humans (for instance, a tool, a technology or a building) can be social 'agents', making things happen. '*Affect*' – understood as a 'capacity to affect and be affected' (Deleuze and Guattari, 1987) – is a feature of all matter: human and non-human, animate and inanimate. Clough (2004: 15) has described affective movements as the 'affect-economy' of an event: the micropolitical forces that shift bodies and things from one capacity to another. Consequently, we must always ask of a body not what it is, but what it can do in a specific context (Buchanan, 1997): what are its *capacities* in this specific context?

Third and finally, transformation from humanist to posthuman social inquiry as part of new materialism derives from this micropolitics of affects. Micropolitically, affects within assemblages may aggregate matter with other matter (Deleuze and Guattari, 1987) – for instance, a passport aggregates bodies within a defined citizenship; racial laws under *apartheid* aggregated people into discrete races. Deleuze and Guattari called the outcomes of this aggregation 'molar'. At the same time, many other affects within assemblages are *singular*, acting only on one element: these do not aggregate, and have the capacity to dis-aggregate already aggregated bodies (Fox and Alldred, 2017: 32): Deleuze and Guattari (1987: 307) refer to such singular affects as 'molecular'.

Posthuman and new materialist scholars consider the world as continually in flux, in a state of *becoming*, via an unending succession of interactive and productive events

(Braidotti, 2013: 104; Deleuze and Guattari, 1994: 158). Becoming is change, it is motion; things are always becoming and rarely fully 'become': as such becoming has no beginning or end (Deleuze and Guattari, 1984). Deleuze and Guattari (1984) locate their perspective on becoming within the dialectic between the already-aggregated (molar) and the singular (molecular). Becoming, they say (2004), is always a function of the singular, the 'molecular'. Consequently, it is antithetical to the 'molar' aggregations that produce 'stable forms, unifying, structuring . . . organising the crowds' (Deleuze and Guattari, 1984: 288). Becoming has the capacity to dis-aggregate and thereby transcend these molar forms by becoming-woman, becoming-child, becoming-animal and so on (2004).

This analysis has direct relevance for the study of ageing and frailty. Deleuze and Guattari argue that successful ageing is not a matter of imitating or replicating youth. Instead,

> [k]nowing how to age does not mean remaining young; it means extracting from one's age the particles, the speeds and slownesses, the flows that constitute the youth of that age (Deleuze and Guattari, 1987: 277).

By extension, this paper proposes that frailty is an already-aggregated/molar production of certain ageing bodies. But a frail body always possesses possibilities to be opened up, to be dis-aggregated from 'frailty' by singular affects, to once again *singularly* 'become-old' in a multiplicity of ways. Becoming, in this way, is the antithesis of frailty and its aggregations. In the following section, we use the toolkit of posthuman and new materialist concepts that we have set out above to devise a methodology for exploring frailty and becoming.

## A new materialist methodology to explore frailty and becoming

A new materialist perspective aims to re-immerse sociological research in the materiality of life and struggle (Braidotti, 2013: 95). Consequently, the task of the researcher is to explore how elements from physical, economic, social and other 'realms' assemble to produce every aspect of the social world (Latour, 2005: 5–6). This focus requires a methodological orientation that explores and analyses data in ways that extend beyond conventional dualisms of animate/inanimate, agency/structure, micro/macro and mind/matter (Fox and Alldred, 2015; Fox, 2016). The new materialist ontology described in the previous section translates into a methodology that focuses not on essential characteristics of bodies (what they 'are'), but instead upon what they do: their relational capacities or incapacities.

While some posthumanist and new materialist scholars have rejected interview data as irretrievably humanist (St Pierre, 2014) or representational (MacLure, 2013: 664), others have used them (alongside other data) as resources by which to provide insights into the material assemblages, affects and capacities surrounding bodies and NHM (Fox and Alldred, 2015; Ringrose and Coleman, 2013). We apply this latter strategy,

**Table 1.** Data sources.

| Source/reference | Methodology | Older participants | Location |
|---|---|---|---|
| Schoenborn et al. (2018) | ×4 Focus groups | 29 community dwelling older people | UK |
| Age UK (2015) | Interviews and focus groups | 12 frail older people<br>Two focus groups older people without frailty (participant numbers unspecified) | UK |
| Archibald et al. (2020) | Focus groups | Seven non frail adults<br>13 pre-frail adults<br>19 frail adults | Australia |
| Cluley et al. (2021) | Situated interviews | 30 older frail hospital patients | UK |
| Grenier and Hanley (2007) | Semi-structured interviews, narrative interviews and participant observation | Older women | Canada and USA |
| Nicholson et al. (2012) | Narrative interviews | 17 community dwelling frail older people<br>Field notes | UK |
| Puts et al. (2009) | Semi-structured interviews | 28 frail and non frail older people | The Netherlands |
| Warmoth, et al. (2016) | Semi-structured interviews | 29 Older people<br>Community and carehome residents | UK |
| Shaw et al. (2018) | Focus groups and interviews | 25 frail adults<br>23 non frail older adults | Italy, Poland, UK |

undertaking a new materialist synthesis[1] of interview data reported in nine studies of frailty (see Table 1).

As noted, a new materialist ontology shifts the focus of analysis away from documenting the meaning and experiences of frailty as a social construct among older adults. Rather, frailty from this perspective is a material phenomenon, with material consequences. Consequently, the aim of this analysis is to explicate the 'frailty assemblage': the constellation of human and non-human materialities (relations) that produce frailty during the daily activities and interactions of older people.

Throughout the analysis, we treat data from the interview extracts not as subjective representations of experiences, but as 'evidence of how respondents are situated within assemblages' (Fox and Alldred, 2017: 172). To achieve this, the analytic approach undertaken diverged substantively from conventional qualitative data analysis. The new materialist synthesis re-analysed interview extracts from a range of qualitative studies, using the conceptual framework of relations, aggregative and singular affects and consequent capacities. Using NVivo, we coded data as follows. First, we trawled the data to identify

the range of sociomaterial *relations* (e.g. bodies, things, concepts, organisations) that assemble around ‘frailty’. Scrutiny of this data also supplied insights into the *affective movements* that draw these particular relations into assemblage (e.g. a clinical assessment by a health care worker). Finally, we identified from the data the *capacities* – positive or negative – that these affective movements produce in older people, and in others with whom they interacted.

## Data analysis

In this section, we report first the range of human and non-human material relations in the frailty assemblage, and then document the physical, psychological and sociocultural affective movements that draw these into assemblages. We then differentiate between aggregative and singular affects, and consider finally the capacities that these affective movements produce in both frail and non-frail bodies.

### *Human relations*

The interviews provided information on a wide range of human materialities in the frailty-assemblage. These included:

- human bodies (sometimes further described as possessing particular capacities, such as fat and thin bodies, weak bodies, hunched bodies);
- body parts (e.g.: legs, eyes, joints, brain/mind);
- friends and family;
- health professionals;
- religious contacts (priests, congregation members);
- support and charity workers;
- members of public or wider community members encountered during social events, shopping etc.

### *Non-human relations*

Interviews also provided details of a wide range of interactions that participants had with non-human relations, including:

- pets;
- physical aids (walking frame, stick, wheelchair, stair lift, glasses/contact lenses, hearing aid);
- housing and associated materialities (garden, stairs, fence, adaptive technology);
- communal facilities, buildings and physical structures (hospital, GP surgery, community facilities, church or other religious building);
- civic infrastructure (roads, street signs, paths, street lighting);
- transport (car, bus etc.);
- natural environment (parks, open spaces, weather);

- household and other objects (duvet, iron, vacuum cleaner, kitchen items on shelves, shopping trolley);
- objects associated with hobbies or pastimes (art, history, music, games, ornaments).

These extensive lists of disparate human and non-human relations are drawn into assemblage through the affective interactions with an older person's body that occur during the daily activities of living. Frailty is an emergent property of this assemblage.

## *The frailty affect-economy*

Frailty is produced by a complex affective flux (capacities to affect or be affected) between the assembled relational human and non-human factors listed above. Affects may be physical, psychological or sociocultural. Physical affects included use of a wide range of assistive technology to facilitate daily activities, from hearing aids and contact lenses to shopping trolleys and stair lifts.

> He needed a walking frame, he had to have a stair lift and he'd always been very active (Respondent 29, quoted in Authors 1 and 3).

One respondent described how one physical affect could overcome another.

> If I fall I don't get up automatically. I can get up, you know, with the help of a bit of furniture (respondent 11, quoted in Cluley et al.).

However, assistive technologies had failed to resolve Hetty's deteriorating sense of hearing.

> My hearing's getting very bad. It's no use buying another one [hearing aid]. I've bought two and none of them doing any good at all – useless. (Hetty, quoted in Nicholson et al.).

Both human and non-human relations affected bodies psychologically. In the reviewed literature, pets featured as affectively enhancing ageing bodies' capacities, for instance in terms of mental well-being and enhanced interaction with the environment and other people. The following respondent considered their dog had provided supportive psychological therapy.

> I am getting depressive and my dog rescues me from depression' (Respondent NF8, quoted in Shaw et al.)

Human relations in the frailty assemblage affected respondents in various ways. The following respondent described how sustaining friendships also sustained a more general engagement with the world, as it required continuing effort on her/his part.

> I find it very important to keep the friendships I have acquired across the years, particularly with those who are facing difficulties. I would tend to close into myself, whereas I have to react to this. (ITA F11, quoted in Shaw et al.)

By contrast, a respondent in Puts et al.'s study described how the aggressive or exploitative behaviour of other people could be produced psychological trauma and fear, and thereby constrain what a frail body could do.

> Well, when other persons yell at you, aggressive behavior of other persons, it did not happen to me but pickpockets often select older persons to rob, well that person must feel very frail (respondent 20 in Puts et al.).

On occasions, human and non-human relations together affected older people. When reduced mobility meant respondent Eli in Nicholson et al.'s study could no longer go out into his garden, his children hung flower-patterned paper panels on his bedroom wall. They then moved Eli's bed and chair into the sitting room, nearer the garden. Eli asked that the curtains should never be drawn, day or night so he could retain contact with his garden.

Socio-culturally, engagement with others within communities could affect older people's opportunities for staying active.

> I think the trick is, you have this medical condition, ailment, disability or whatever, if you have friends or societies that you're keenly interested in you will think, shall I? Yes I will go to that meeting. I will get out to that meeting. If you haven't got that, you will tend to stay in the house and get . . . you know. (UK F12, quoted in Shaw et al.)

> If I let myself go and didn't arrange things and didn't do anything I could become more frail, but I have the stimulus of people around me. (Diana, quoted in Warmoth et al.).

Together, these examples illuminate the affect economy of frailty. The relationship between the human and non-human factors, and the micropolitical forces within this assemblage, shift older bodies from one capacity to another. In doing so the assemblage of human and non-human factors continually and fluidly reassembles as relationships between factors change. Positioning frailty in this way allows older bodies to be viewed in terms of their capacities in particular contexts.

## *Aggregative and singular affects*

Among the different affects, some acted singularly on bodies, with no effect other than producing an immediate change. The extracts quoted previously, documenting the positive affects associated with owning a pet dog, and the physical alterations to Eli's home were all singular, with no aggregating effects beyond that specific interaction. Not all singular affects were positive, however. A fall produced a singular affect in Pat, a respondent in Nicholson et al.'s (2012) study.

> I had a fall and broke my arm, and that seemed to upset the whole system. The pain from the arm wasn't too bad, but it seemed to upset me, I don't know, sort of. . . it's difficult to describe, but I was looking for trouble all the time. . . Things just seem different now. (Pat, quoted in Nicholson et al.)

Evelyn, another respondent in Nicholson et al.'s study, described how ornaments she had collected from around the world had singular (non-aggregative) psychological effects on her. If she had to throw these out to move into a retirement home, she said, she 'would be dead in two weeks'.

Affects that act on multiple but disparate bodies aggregate them into categories, to establish them within extraneous structures, norms or expectations. Care could be aggregative, creating relations of dependency and lose of autonomy, as this respondent described.

> It's a kind of dignity and privacy and autonomy thing . . . I wasn't very comfortable in hospital having my knee replaced. I didn't like it very much . . . I didn't like being in other people's hands. I don't like that dependency. (UK NF1 quoted in Shaw et al.)

The biomedical category of 'frailty' has multiple clinical consequences for those so aggregated, as evidenced in this quotation from Lee et al.'s (2015) clinical review of frailty.

> Once frailty has been identified, management involves identifying and addressing conditions that might underlie frailty and mitigating stressors that might precipitate adverse outcomes. A comprehensive geriatric assessment (CGA) 41 is recommended to evaluate physical, cognitive, affective, social, environmental, and spiritual factors that influence health, and linking these to a plan of management. (Lee et al., 2015: 229)

This biomedical aggregation and the constraints on capacities it produces was reflected in the following comments from respondents.

> When a physician would say to somebody [that he or she is frail], would that have any detrimental effect on the individual of start becoming more frail and start acting more frail? Because, psychologically, seeds have been planted. [Someone thinks] I'm frail so I guess I'm just gonna have to sit in this chair and watch television 24 hours a day. (unnamed respondent, quoted in Schoenborn et al.)

> I think once you're sort of labelled frail . . .there is a tendency to get worse but I don't know whether that's . . . due to psychology or not but I tend to think that there are pressures on people who are frail that they, the majority tend to get worse and therefore they eventually pass away. (Jack, quoted in Warmoth et al.)

Aggregation into a category of 'frail' may also be a product of lay assessments, based on cultural norms of behaviour, as this 'non-frail' man in his 80s suggested.

> A friend of mine has Alzheimer's disease, which is a disaster. If we have a dinner party and we go somewhere his wife needs to help him eat, he cannot do anything anymore. (unnamed man, quoted in Puts et al.)

And as a participant in Archibald et al.'s study outlined:

> Well just say once a person is in those princess chairs they must. . . you know, my sister's in one of those so I guess she's frail. I mean she can't walk or anything now. (FG6 female, quoted in Archibald et al., 2020)

Such an aggregation into a category of frail may be well-intentioned. But Diana (a respondent in Warmoth et al.'s study) argued that this could lead to avoidance or exclusion from social activities.

> If you say you're frail, people will treat you differently. . . if you say that you are going to see such and such a person she's now very frail. They're afraid of involving them. . .yes, I think people then treat them differently. Attitude is 'we shan't ask you to do things'. (Diana, quoted in Warmoth et al.)

## *Capacities and in/capacities*

The reviewed studies reveal how, during everyday encounters, the assembled human and non-human relations in the frailty-assemblage produces a range of capacities in bodies that may either constrain or enable the frail body. Interactions with non-human matter in the frailty-assemblage can open up capacities that had been constrained by problems associated with ageing or health problems, for instance by using physical aids to mobility or senses such as hearing or sight.

> I have got a shopping trolley for heavy things. It's about accepting that you need aids of some sort from now on' (Un-named female respondent, quoted in Age UK study)

> If you can't see well, that seems horrible to me. Now I have contact lenses. (Respondent 5, quoted in Puts et al.)

In these extracts, non-human elements enabled engagement with the everyday. Contact lenses allowed bodies to see, while shopping trolleys allowed bodies to transport heavier items and facilitate independent shopping. In this way, objects had enabling material affects upon bodies. These have often been side-lined in social constructionist research, that focuses on how discourse constrains older bodies.

The continual assembling and re-assembling of the various and fluctuating affects that produce frailty was evident throughout the participant quotes in the studies reviewed. For example, when failing eyesight limited Flora's capacities (quoted in Nicholson et al., 2012), a streetlight outside her window increased the level of ambient light, enabling her 'to see, be seen and remain connected to the outside world'.

> For months I had no streetlight here. But my daughter faxed all my councillors and at last, the Council came and put it up, I don't like it [the style] but still I've got a light and so I know I can see again and they can see me, (Flora, quoted in Nicholson et al.)

However, aids were not always sufficient to overcome physical disadvantage. In the following extract, an older person's walking cane was inadequate to enable a day trip to be enjoyed.

> There is a man in this building. He used to be a teacher and nowadays he walks with a walking-cane, he trembles when he walks. . . . Last time he went away on a bus trip he was so worn out the next day he could not do anything. He did not go on the next bus trip and he stayed home. (Respondent 23, quoted in Puts et al.)

Whereas in the earlier example of a shopping trolley facilitating independent shopping, here the capacity afforded by a walking cane was insufficient to overcome physical weakness.

Similarly, health technologies may in themselves be limiting. In the following, the need for a stoma (abdominal opening following digestive tract surgery) prevented a woman from participating in social activities.

> Well look at my sister. Physically her health is declining terribly. She used to be a beautiful woman and she can no longer take part in things. She lived at the park and she worked with young people as a volunteer for 30 years. Now she can't do that anymore. My other sister and her husband will be 65 years old and there will be a brunch but she can't go because of her stoma and I think that's so sad'. (Respondent 17, quoted in Puts et al.)

In/capacities societally defined as linked to frailty – and the objects/behaviours associated with them, also had the potential to be seductive, as seen in the extract below.

> I'd love to stay like this [in her chair where she felt most comfortable] - you've only got to start doing that. You see my friend; she started staying in the chair. And then it was staying in her dressing gown and she seemed to just drop away then; that I sort of think to myself 'no, you mustn't do it; you've really got to keep on'. So I suppose I will, I'll just keep on as long as I can. (Doreen, quoted in Nicholson et al.)

Resistance is a common theme in humanist literature addressing frailty (Grenier and Hanley, 2007; Warmoth et al. 2016). For example, Grenier (2006) identifies strategies used by her participants to resist the effects and stigma of ageing, by sustaining a positive attitude or not dwelling on ageing. From a new materialist approach, 'resistance' is understood differently: as emergent enabling capacities that counter other affects in the frailty-assemblage that constrain what an ageing body can do'. These enabling capacities may be due to nonhuman affects, for instance a pet, as succinctly described by this respondent.

> A dog gets you out into the fresh air and the people you meet, you meet a lot of people as well and it gives you something to do, keeps you feeling positive. (P27, quoted in Cluley et al.)

These capacities and incapacities establish the limits as well as the capacities of what a body can do. They feed back into the assemblage, to produce the becoming of the frail body.

## Discussion and conclusion

Humanist analysis of qualitative data is characterised by a focus on human stories, experiences, agency, reflexivity and subjectivity (Lather, 2016: 127; St Pierre, 2021a, 2021b:

1–2). Sometimes the aim may be to expose struggles between a plucky agentic human and the impersonal forces of an oppressive system or structure, or to ironicise discrepancies between intended and unintended consequences: for instance, between the stated objectives of a well-meaning clinical practice and its potentially de-humanising or restrictive impact on patients. This humanist tone is manifested in many of the studies we reviewed. The new materialist synthesis we undertook shifted decisively away from both this essentialist and agentic perspective on bodies, and from an assumption of the inherent 'humanity' of humans that is supposedly lost in a 'fourth age' of frail ageing, or 're-gained' through heroic resistance to structural or discursive forces.

Our intention has been to re-analyse data from these studies, using the accounts they reported to disclose the multiplicity of more-than-human elements in the relational 'frailty-assemblage'; the affective interactions these have on ageing bodies; the capacities and incapacities these affects produce; and the continual assembling and re-assembling of what ageing bodies can do. We explored what has been called the 'affect economy' (Clough, 2004) or 'micropolitics' (Fox and Alldred, 2017) of more-than-human assemblages and the aggregative and singular affects that assemble them, to make sense of how frailty emerges and how becomings counter this.

This model acknowledges that bodies are always already part of a more-than-human assemblage, and that it is the micropolitics of affects in this assemblage rather than human agency that produce body capacities. It is important to note that the affects that contribute to the production of frailty are continually in flux, assembling and reassembling bodies and other matter rhizomatically, according to context and circumstance. The model also differentiates between two micropolitical processes: both, an 'aggregating' or 'molar' flow of affect that draws dissimilar bodies into categories such as 'old old', 'fourth age' or 'frail' from which there is no back-tracking; and also, a 'singular' or 'molecular' flow that does not aggregate at all, but produces capacities specific to that body and its contexts: capacities that open up new opportunities and shed the shackles of aggregation. Together, these opposing affective flows produce what the model describes as the 'becoming-older body'. In the context of this paper, the data analysed suggests aggregating flows are associated with socio-cultural forces such as clinical or lay assessments of ageing bodies, while singular affects may derive from physical, psychological, social, economic or other elements in the assemblage, and may serve to dissipate aggregating affects in the assemblage. We documented some examples of these aggregative and singular affects in the analysis section.

However, this relational model of a becoming-older body is foundationally dynamic. It does not deny that old age often brings multiple material (physical, psychological, sociocultural) changes that alter capacities: some of which alterations clinicians describe as features of 'frailty' and others have labelled a 'fourth age' (Laslett, 1989: 41). Additionally, this model acknowledges that a becoming-older body – even the 'frailest' of older bodies – is always part of a far broader more-than-human assemblage. In these assemblages there are multiple affects deriving from the interactions between the various human and non-human materialities it comprises. Consequently, there is always the potential for new singular/molecular affects within this assemblage to establish possibilities for further becoming. This understanding of ageing and becoming-frail counters a

humanist assessment of a fourth age characterised by a lack of agency and autonomy (cf. Gilleard and Higgs, 2011; 125). Instead, the new materialist turn acknowledges the agency/affectivity of all matter (Bennett, 2010) and hence of the more-than-human assemblages within which bodies are always already a part.

Earlier in the paper we noted that becoming, in this new materialist framing, is the assertion of the singular, the minoritarian and the molecular (Deleuze and Guattari, 1987: 290–291). Change is the fundamental feature of becoming: becoming opens up possibilities. The frailty referred to in much of the medical and social science literature we reviewed manifests as molar and aggregated: as stasis. This new materialist perspective on becoming supplies the means to return ageing to the realm of the singular, the molecular, the becoming. Even 'frailty' can be re-positioned as part of the becoming of the ageing body. Even the person bedridden and without speech following stroke is part of a more-than-human assemblage that has within it the potential to enable becomings.

This new materialist perspective on frailty, we would argue, is not simply an intellectual exercise. Rather it is a fundamentally micropolitical act of re-interpretation that requires all those concerned with frailty practices (Grenier, 2007: 429) to alter the entire ontology with which they understand and engage with issues of embodiment. By acknowledging the more-than-human production of bodies as a continuous and unending affectivity, old people, their families and friends, advocates and health professionals can become part of a frailty-assemblage that is not aggregative but singular. Ageing need not be regarded as a gradual decline, but rather a becoming that extends across a life-span and beyond.[2] It does not deny biology and the effects of time on organic matter; nor does it reject the efforts of health professionals to use skills and specialised tools to assess what ageing bodies can do. It does however reject classifications/aggregations by health and care practitioners and lay people based on evaluations of what bodies cannot do.

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## Notes

1. By this, we mean an approach to synthesising a literature that is informed by the posthuman and new materialist ontology previously outlined. This enables data extracts quoted in the sampled papers to be re-analysed from a posthuman and new materialist perspective.
2. In new materialist ontology, 'death' is a change of state rather than a final dissolution.

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