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Designers as sustainability champions: a discursive analysis of product designers claiming a role of 'pushing' for sustainability

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Abstract: A tension is apparent in the literature on the role of designers in making products more sustainable. On the one hand, there is a discourse of individual designer responsibility and many methods and tools are prescribed to encourage and help designers make more sustainable design decisions. Advocacy organisations focusing on sustainable and circular design have in recent years focused on inspiring designers to make more sustainable products. On the other hand, science and technology studies literature highlights the multi-stakeholder network character of design, where designers lack the power to make design decisions. This study examines how designers' roles are portrayed in reflective verbal accounts collected using two methods – sixteen semi-structured video call interviews with sustainability-focused designers, and video recordings of seven sustainable design conference panel discussions. Selected extracts are analysed using discursive psychology, to identify how actions are accomplished through talk. We see many designers working to overcome the ambiguity of seeking to be a responsible designer while not being able to make final design decisions, by claiming an extension of their role as 'pushing' and persuading for sustainability, to influence key design decisions. Talk of 'pushing' for sustainability is common across interviews and in talk at public design conferences, and in both general talk and talk of specific projects, suggesting the framing is significant to the designers' roles. The sustainable design community could consider how to support designers who report their roles as already 'pushing' to achieve more sustainable products, reflecting a sustainability champions concept that is established in other fields.

Introduction

It is often claimed that the majority of the environmental impacts of products throughout their lifecycles are determined at the design stage (Devon & van de Poel, 2004; Tischner, 2001). For example, this may relate to materials choices, energy sources, or ease of dismantling and repairing. However, academic literature is ambiguous regarding whether design decisions are typically made by designers, by other stakeholders, or through social interaction and negotiation. Indeed, all three may be correct in different contexts and for different types of decisions. Yet there is limited research exploring how designers themselves characterise their roles and agency related to making products more sustainable.

In this paper, product designers' accounts of sustainability-focused design are examined, to identify how they frame design decision-making. In an initial analysis, a pattern of designers portraying their roles as 'pushing' for sustainability, rather than making design

decisions themselves, was noticed. A discursive psychology (DP) analysis of how pushing and persuading are made relevant in accounts about design roles is presented below.

The role of designers in making products more sustainable

Literature on design decision-making often implies that designers are the ones making design decisions. There is a large body of literature on individual designers' moral responsibility to make sustainable decisions (Alpern et al., 1983; Cook, 2008; Fahlquist et al., 2014; Fry, 2004; Roeser, 2012). Similarly, advocacy organisations that frame design as key to sustainable development such as the Ellen MacArthur Foundation (2020) often talk of inspiring designers to make more sustainable decisions. There is also a vast amount of academic literature proposing tools for designers to improve their decision-making, taking into account complex, interconnected factors (MacAskill & Guthrie, 2013; Kiker et al.,

2005; Schögggl et al., 2017). Some of these acknowledge that designers may not be making the final design decisions, but many do not.

Other authors have highlighted the importance of social interaction and negotiation in making design decisions, based on ethnographic studies (Bucciarelli, 1994; Lloyd and Busby, 2003; Luck, 2015). It is widely reported that many different stakeholders are involved in design (Devon & van de Poel, 2004; Feng & Feenberg, 2008; Richardson, 1993; Woodhouse & Patton, 2004) therefore expecting designers to simply make more sustainable decisions is likely to be unrealistic.

Nevertheless, if a designer is not a final decision-maker, they may still make smaller design decisions and may seek to influence larger ones. Fry (2004) and Van de Poel and Verbeek (2006) recommend that designers should actively aim to influence design decisions made by others, and should question the ethical frameworks in client briefs, in order to achieve more sustainable products.

Yet there has been limited research helping us understand how designers themselves navigate the limited influence they may have on some design decisions. Some studies have interviewed designers or engineers on whether they sought to influence clients or colleagues towards sustainability (Swiersra & Jelsma, 2006; van der Burg and van Gorp, 2005). But most such interview studies tend to consider what participants say an accurate representation of reality. In this study I take into account the constructed and constructive nature of talk, and the interactional context of interviews, examining language as action, by using DP.

Methods

Two types of data were collected in summer/autumn 2020 following Research Ethics Committee approval – 1) video call interviews with sixteen sustainability-focused product designers, recruited via LinkedIn (see table 1) and carried out by the author, and 2) seven YouTube videos of relevant interviews and panel discussions at recent high-profile sustainable design conferences. In the interviews, participants were asked to give accounts of recent design projects, including how decisions were made. The use of the two types of data allows a comparison of how

participants talk about their roles in private and in public.

DP was used to analyse the designers' accounts, to identify what is being done in the interactional talk, for example how designers construct accounts of roles, identities, and responsibilities through what they say and how they say it. DP has often been used to research identities, using interviews and also written reflective accounts (McLean, 2012; Widdicombe, 2017). DP is not often used in design, yet the closely related method, conversation analysis, has become more common (Luck 2012).

Drawing on guidance from Wiggins (2012), I first produced word-only transcripts of the full corpus of data, and then after selecting over thirty extracts where an influencer role was being portrayed, I transcribed these using Jefferson (2004) notations (see table 2).

Data and Analysis

Here I present selected extracts of (in progress) analysis to show two patterns of how designers are portraying taking on influencing roles.

Firstly, I examine how doing 'pushing' is actively made relevant early on in a conversation. The extract in figure 1 is taken from early on in an interview with a luggage designer (P3). The participant had been asked to remind the interviewer (I) what product she was going to talk about (a collection of suitcases), and where the idea had come from to use recycled material in the suitcases. The response was an account of how her and her manager's values had influenced their desire to make the products more sustainable, and how this had led them to seek to source new materials. Then the interviewee described how she had started 'pushing'. This is not an expected response to the question asking where the idea had come from, but additional detail on roles that is voluntarily offered up, indicating that there is something significant about the 'pushing' framing.

Figure 1, extract from interview 3.

1 P3 and then we get t::o <meet
2 the suppliers> went to the
3 factory >you know< how they
4 recollected (.6) the bottles
5 and >all of this< and we
6 kept pushin pushin (1.2) to
7 see if for the <next
8 collection> we could use
9 this material (.5) instead
10 of the regular polyester
11 (.7)

12 I yep

13 P3 s::o (.2) you know (.3) over
14 the time we just (.) decided
15 (.6) >to ↑keep going going
16 ↑going< of course the prices
17 (.7) (hh) were a little
18 higher (hh) (.4) as
19 suspected (.2) always (.2)

20 so we had to (.2) really
21 like push hard

The extract starts with a brief account of meeting suppliers and visiting a factory where plastic bottles are recycled into fabric, framed in a way that implies shared knowledge of sustainability with the interviewer, through the use of 'you know' (line 3) and the vague 'all of this' (line 5). In line 6, the notion of taking on the role of continuously 'pushing' is introduced. The term 'pushing' itself implies that effort, or even force, is required to convince others to take on their idea. The repetition of 'pushin' (said twice in line 6) adds emphasis to this sense of effort, and the use of 'kept' pushing constructs this effort as sustained over time.

In line 6 we see a long pause after 'pushin pushin', which may indicate some difficulty in formulating what is being pushed for. When what is being pushed is then stated (in lines 6-10 after the pause), it is tentative ('to see if for the next collection we could...'). Note that there is no detail of who or what might be being pushed against. The interviewer does not comment on the introduction of the pushing role as a response to where the product idea came from. Instead, there is simply a 'yep' in line 12 to encourage the participant to continue with her account after a pause.

In the participant's response from lines 13-21, we see an upgrading of the account of pushing, to portray the extent of effort needed. For example, in line 15, a similar design to that in line 6 can be found, with the use of 'keep' and the repetition of 'going' (this time three times) giving a sense of perseverance over time. After then hinting at a factor that might make the pushing difficult – the prices of the recycled materials are higher, the participant says in lines 20-21 'so we had to really like push hard'. The use of both 'really' and 'hard' gives a strong sense of effort and difficulty.

The pushing framing is also found when a designer is asked directly about decision-making roles. Figure 2 shows an extract from a question-and-answer session at an online responsible design conference, which followed a panel discussion with representatives from a consumer electronics company. Here a lot more may be at stake than in a private interview. A question typed into the chat window was paraphrased by the panel chair (C), asking who makes the design decisions, given the wide range of stakeholders involved. The product designer on the panel (D) responded, first providing an agreement that there are many stakeholders involved in making design decisions and so designers cannot simply decide, and then producing the account presented in figure 2.

Figure 2, a product designer speaking at a sustainable design conference.

1 D but what designer can do
 2 <and er> are usually quite
 3 good at doing is inspiring
 4 the business and (.2)
 5 provide inputs and really
 6 push for these ideas
 7 ((lines omitted where the
 8 designer is talking about
 9 how circular design is
 10 feasible))
 11 how it is not <like magic>
 12 but it's something that we
 13 can [bring
 14 C [mhm]
 15 D and we bring today
 16 that that can really help
 17 (.) in (.) pushing this idea
 18 harder

The extract starts by counteracting the previous talk of limitations of designers' agency, by proposing what designers can do. The formulations of both 'can do' (line 1) and 'usually quite good at doing' (lines 2-3) give a sense of the behaviours listed as being accessible to designers in general. The designer then produces a three-part list in lines 3-6 to frame the role of a designer as first to inspire, then to 'provide inputs', and then 'really push for these ideas'. 'These ideas' is very vague, but from the context of the conversation, we can assume the ideas to be about making products more sustainable. It is the third item in this list, the 'pushing', that is taken up again in the rest of the interaction, suggesting 'pushing' is somehow significant in this general talk about designers' roles too. Again, there is no object in terms of who or what is being pushed.

From line 11, following some detailed talk about the feasibility of circular design, the designer continues to formulate the role designers in general can play in sustainability. He frames designers as able to 'bring' (lines 13 and 15) 'something' (line 12). Again, the talk is very vague and assumes knowledge of listeners to fill in the blanks. The use of 'we' in lines 12 and 15 serves to frame a group of designers with a shared interest who can play a role in pushing sustainable ideas. The extract finishes with a

return to 'pushing' in claiming that what designers bring 'can really help in pushing this idea harder' (lines 16-18).

Secondly, I look at how designers claim to be doing influencing in a different way – through persuading, and how the persuading role is also actively made relevant by a designer early on in a conversation. The extract in figure 3 comes from an interview with a yoga accessories designer (P14), which is part of a response to a question about where the idea for a more sustainable product came from (like in extract 1). She responds also by highlighting her sustainability values and not wanting to design products that would quickly become obsolete, and then stated she was always pushing for sustainability, and then produced the account in figure 3. In this extract, the participant is seemingly reporting what she has previously said to her creative director, to depict doing persuading. In doing so, she is portraying her persuading role as a key element of what led to the sustainable product range.

Figure 3, extract from interview 14.

1 P14 and at that time i was
 2 reporting into our creative
 3 director and i was just
 4 telling him (.8) like 'if we
 5 wanna be innovative' cos
 6 they were just pushing for
 7 like this (.3) innovative
 8 story (.3) for the brand >i
 9 was just saying< 'if we
 10 wanna be (.2) innovative
 11 (1.0) we have to be
 12 sustainable otherwise you're
 13 just (.6) not=
 14 =you won't be innovative'
 15 >like innovation< (.7) or
 16 >sustainability should be
 17 the number one catalyst for
 18 innovation< and my role was
 19 design and innovation

Before the reported speech, the participant establishes the persuading she is about to depict as mundane. She says, 'I was just telling him' (lines 3-4, also a similar formulation occurs in lines 8-9), where 'just' acts to make it sound like a common occurrence. This is followed by a fairly long pause (.8) which may indicate some difficulty in how to frame the reported

conversation, or perhaps how to produce the most convincing account for the interviewer.

What the participant reports to have said to her creative director to persuade is then presented in lines 4-14. This re-enactment of a conversation enlivens the account and works to claim authentic, factual evidence of her effort to convince others, to enhance credibility (Holt & Clift 2006). In this reported persuasion talk, she starts by establishing the importance of innovation to the company in lines 5-8 ('cos they were just pushing for this innovative story for the brand'), then in lines 11-14 links sustainability to innovation. The extract ends with the production of 'facts' from lines 15-19 to add credibility to her view of what they should be pushing for, claiming that sustainability is necessary for innovation.

We also see identity implications in the varying pronoun use used in the persuasion talk. In lines 4-11, the participant uses 'we' when talking about her recommended path for the company ('if we wanna be innovative' is said twice). Then, immediately after 'otherwise' (line 12), she switches to 'you' for the scenario where her recommendation is not followed (lines 12-14). If the company is to be sustainable, she demonstrates association with it through her pronoun choice, but if not, she switches pronouns to distance herself from the company.

Discussion

We have seen two related roles portrayed in the product designers' accounts which position the designers as somehow doing sustainable design despite not making the decisions – pushing and persuading. These roles are often actively made relevant by the designers early on in their accounts. The pushing framing is seen repeatedly in both interviews and public design conferences, and in both talk about specific design projects, and general talk about design. These influencing roles are found in accounts of both in-house design and designer-client contexts. These findings suggest that there is something significant about the 'pushing' framing, as well as about the depiction of taking on an influencing role more generally, in the context of doing sustainable design.

Claiming these voluntary and informal influencing roles may help designers overcome a tension between seeking to do more sustainable design, yet not being able to make

final design decisions. Indeed, before taking part in the interviews, participants were told they would be asked about design decision-making, and so may have been particularly aware of this possible tension.

Other studies that have found that designers report trying to influence those making final design decisions towards more sustainable options (e.g., Swierstra & Jelsma 2006), typically do not give much detail of analysis methods. This discursive psychology study provides a more in-depth analysis of what is being accomplished in interview talk, ensuring findings are close to the data and providing direct evidence of how designers are claiming extensions to their roles.

Conclusion

This discursive analysis of sustainability-focused designers' accounts shows that the roles of pushing and persuading are actively made significant by many of the designers. Both roles reported provide claims of designers working to influence others as a way of doing sustainable design, while not making final design decisions themselves. There is an opportunity for further research on ways designers report extending their roles.

Given these findings, the sustainable design movement may wish to recognise that many sustainability-focused designers are already claiming to be pushing and persuading for sustainability, and to consider how they could be supported. For example, the notion of a sustainability champion, working within a company to engage other stakeholders, has been studied in other fields (Andersson & Bateman, 2000; Willard, 2009) and may offer insights for design.

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Figures and Tables

Table 1. Interview participants

Location	Sex	Type of design project talked about	Product type
Germany	M	In-house	Furniture
India	M	In-house	Packaging
US/ Netherlands	F	In-house	Luggage
Argentina/ Italy	M	Independent	Furniture
UK	F	Internship	Child's bike
UK	F	Student project + in-house	Cycling backpack
France	F	Student project + in-house	Outdoor space
Netherlands/ Brazil	F	Student project + in-house	Plant sensor
US	M	Design agency	Packaging

Spain	M	Design competition	Compost bin
Brazil	M	Independent	Facemask
UK	M	In-house	Electric vehicle charger
US	M	In-house	Vehicles
Canada	F	In-house	Yoga mat
Germany	F	Independent	Lamp
UK	M	Independent	Plastic cup

Table 2 – transcription symbols (Wiggins, 2017, adapted from Jefferson, 2004)

(.)	A micro-pause around one tenth of a second
(1.2)	A pause or silence, measured in seconds and tenths of seconds
=	Latched talk, where there is no hearable gap between words (can occur within a turn at talk, or between speakers)
::	Stretched sounds in talk; the more colons, the longer the sound, as in reaa::lly l::ong sounds
CAPITALS	Talk that is noticeably louder in contrast to the surrounding talk (sometimes shouting)
<u>Underlined</u>	Emphasised words, or parts of words, are underlined
°	Degree symbols enclose noticeably °quieter° talk, with double degree signs indicating °°whispering°°

> <	'Greater than' and 'less than' symbols enclose talk that is at a faster pace (>speeded-up< talk) than the surrounding talk
< >	'Less than' and 'greater than' symbols enclose talk that is at a slower pace (<slowed down> talk)
↑ ↓	Upward arrows indicate a rising pitch in talk, downward arrows indicate falling pitch
£	British pound sign indicates smily voice or suppressed laughter
#	Hashtag indicates 'creaky' voice such as when someone is upset.
[]	Square brackets indicate the start (and end) of overlapping talk
hh	hhs indicate audible breaths. A dot followed by hs (.h) indicate audible inbreaths; without the dot (as in hh) is an outbreath. Within a word (as in 'ye(h)s'), this indicates laughter while talking ('interpolated laughter'). The more hs, the longer the breath.
Huh/heh/hah	Laughter can be represented with outbreaths that have vowel sounds within them.
'yes'	Single quotation marks are used to indicate reported speech or thought
(())	Double brackets (sometimes without italics) contain details about other features that have not been transcribed, e.g., ((waves hand))
(Unclear)	Words in single brackets are the transcriber's best guess at what was being said, or (unclear) or (inaudible) if it really can't be heard clearly