# *Science 'fact' and science 'fiction'? Homophilous communication in high-technology B2B selling*

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**Abstract**

This study deepens our understanding of the processes underpinning the diffusion of innovation by critically exploring the language that scientist sellers and buyers employ to facilitate sensemaking in their spoken marketing communications. Pervasive complex technical terminology within B2B high-technology sales relationships results in numerous sensemaking challenges. Using a discourse analytic methodology, sellers and buyers from nanotechnology companies are interviewed to better understand how culturally close (homophilous) or culturally distant (heterophilous) sales talk influences sensemaking. Although a need for 'marketing' is begrudgingly acknowledged, these boundary spanners all appear to enact centralized identities as 'scientists' engaged in selling and buying. Working towards maintaining homophily, participants claim to jointly use linguistic tools such as metaphors and popular cultural references to enable a functional level of sensegiving and making.

**Key words**: sensemaking, discourse, diffusion of innovation, high-technology, B2B, sellers & buyers

**Summary Statement of Contribution**

We explore the processes underpinning the diffusion of innovation by critically considering the language that scientist sellers and buyers employ to facilitate sensemaking in B2B nanotechnology marketing communications. Being aware of the difficulties in discursively constructing high-

technology products, we show that these boundary spanners contrast notions of science and marketing, and via a variety of linguistic tools, co-construct selling-buying discourse to foster cultural closeness, which appears to be 'good enough' to give and make sense. This process of reaching meaning is somewhat akin to 'satisficing' when purchasing a product that provides a satisfactory (rather than optimal) solution to a need.

# Science 'fact' and science 'fiction'? Homophilous communication in high-technology B2B selling

## Introduction

This paper explores the marketing of high-technology in a B2B context. Companies constructed as high-technology tend to engage with 'cutting-edge or advanced technology' products (Slater, 2014, p.9), orientating product development towards greater levels of innovation. Commercialising innovative products is vital for high-technology organisations (Yalcinkaya, Calatone & Griffity, 2007). However, individuals within these companies face challenges working with complex, emerging and not easily understood technologies (Sperry & Jetter, 2009), challenges which extend most acutely to how boundary spanners representing these firms engage in selling and buying activities. This can mean that there is a greater potential for lower levels of diffusion of these innovations (Rogers, 1962, 2003) and thus failed commercialisation (Griffin & Hauser, 1996). What is said about high-technology products can be pivotal for how buyers make decisions (Yap & Souder, 1994) and yet there has been limited consideration of the communications needed for sellers and buyers to make sense of a product's technological functionality (Haverila, 2013; Shanklin & Ryans, 1987).

Understanding the process of sensemaking is important for how sense is communicated from a B2B seller to buyer and how the recipient undertakes to make sense of that communication (Hennneberg, Naude & Mouzas, 2010). Not surprisingly, sensemaking is often encountered in knowledge intensive and high-technology B2B relationships; and where there is ambiguity, 'managers cannot just capitulate in front of these confusing structures' (Hennneberg et al., 2010, p.355). Rather, they 'must wade into the ocean of events that surround the organization and actively try to make sense of them' (Daft & Weick, 1984, p.286). Creating a shared negotiated discursive space is a potential way to traverse this ocean, where there is a need for common understanding of what constitutes value for B2B technology customers (Parry, Rowley, Jones & Kupiec-Teahan, 2012). Drawing on Rouleau (2005, p.1415), this study therefore sets out to understand the nuances of discursive practices in high-technology sales on the basis that, 'in a complex world where competitive advantage lies in details, symbolic resources and intangible assets should definitely be investigated'. As such, this study

addresses the use of language by scientist sellers and buyers to facilitate sensemaking in B2B nanotechnology marketing communications.

*The 'complex world' of nanotechnology*

The small size of nanotechnology materials can enable numerous novel functionalities such that it has been suggested that nanotechnology will be able to act as a revolutionary platform for many sectors (Delgado, 2008; Zonneveld, 2008). Materials include nanoparticles used in pharmaceuticals and cosmetics, thin-films in antimicrobial coatings and electromagnetic storage, and nanotubes in biomedical engineering. However, while these nanoscale products are potentially advantageous, the technology creates some particular sensemaking challenges (Tolfree & Jackson, 2008). Despite its promise, the area is filled with technology-laden language and potentially confusing socio-linguistic constructions (Baker & Aston, 2005), which creates hurdles for individuals seeking to market these products. For instance, 'nano' terminology is no longer linked purely to scientific objects as it has entered wider public discourses related to a host of non-nano size products (Ladwig, Anderson, Brossard, Scheufele & Shaw, 2010), for example the iPod nano. Thus a variety of cultural resources are available to construct nanotechnology products, creating challenges for B2B sellers and buyers to discern what is, scientifically-speaking as it were, 'genuine' nanotechnology (Boholm & Boholm, 2012). From the point of view of these social actors, there is the potential for authentic sense to be obscured or undermined through what is said. Even though many of these boundary spanners have scientific backgrounds, there can be differences in the way that individuals comprehend and construct scientific meaning based on their level of scientific training (Pecora & Owen, 2003). Thus Munshi, Kurian, Bartlett and Lakhtakia (2007, p.433) state that 'there are as many conflicting conceptions among nanoscientists themselves as there are among journalists, business leaders, and social-humanistic researchers.'

However, there can still be commonalities in the way that similarly self-identifying individuals draw on and share information. For example, failure is something rarely acknowledged by scientists, and

this can be taken to an extreme where there is an unwillingness to be critical of nanotechnology (Robichaud, Tanzil, Weilenmann & Wiesner, 2005; Roy, 2004). Moreover, it can be argued that part of the constructed narrative of nanotechnology by scientists is self-perpetuating and somewhat circular, as scientists often seek other scientist's opinions at the expense of other stakeholders. Collins and Evans (2002) link this to the 'right to talk', which refers to a belief that scientists often hold that only other scientist's opinions on scientific matters are valid. Thus scientists as social actors and notions of science as a discourse are likely to have a significant influence in the marketing of innovative products. To explore this influence, this study looks at B2B selling and buying organisations in the nanotechnology sector. It offers a nuanced perspective on sales relationships for high-technology products, particularly in exploring how science 'fact' and 'fiction' are discursively utilized to influence cultural closeness. Given the likely impact on the dissemination of nanotechnology of the discursive interactions between scientists and other scientists (and non-scientists), all with potentially conflicting perceptions, the core research question is: How do scientist sellers and buyers discursively facilitate sensemaking in B2B nanotechnology marketing communication?

The paper continues with a review of the literature addressing communication in selling and marketing high-technology products; and highlights some language issues underpinning sensemaking for managers involved in the diffusion of innovations. The interview-based discourse analytic methodology is then outlined. Following a presentation of the findings the paper offers a discussion and concludes by outlining the study's contribution, as well as providing some comments regarding managerial implications and future research.


**Literature review**

*The marketing & selling of high-technology*

One of the more popular conceptualisations of technology adoption is the Diffusion of Innovation model (Rogers, 1962). It is argued that this model influences the concept and practices of innovation

management and marketing, including high-technology products (Wonglimpiyarat & Yuberk, 2005). Rogers (2003, p.11) suggests 'diffusion is the process by which (1) an innovation (2) is communicated through certain channels (3) over time (4) among the members of a social system'. Boundary spanning actors (sellers and buyers) in this social system are crucial to the adoption of new products in B2B markets as they function at the interface between customer and supplier (Krush, Agnihotri, Trainor & Nowlin, 2013), communicating information between each other, as well as to their organisations (Rogers, 2003). Thus the interactions of individuals are central in bringing radically new products to market (Story, Hart & O'Malley, 2009).

The importance of personal selling in high-technology B2B markets is widely recognised (Slater, 2014). In part, this is linked to lower customer numbers in comparison to B2C markets (von Hippel, 1986). Niche technological characteristics of certain products also means that there is a greater employment of salespeople to communicate more detailed product understanding to buyers, resulting in supposedly deep relationships (Slater, 2014). Effective sales companies, particularly within technology markets, are argued to match the needs of potential buyers and aid them in making decisions about purchasing (Ulaga & Sharma, 2001) by adopting a consultative selling process (Delvecchio, Zemanek, McIntyre & Claxton, 2004) where there is a greater requirement for the seller to ask questions, listen and build rapport (Moncrief, Marshall & Lassk, 2006). However, the marketing of intangible technology such as nano can mean that salespeople sometimes have difficulties in understanding their own firm's products (Ford & Ryan, 1977). Moreover, the greater the novelty of an innovation, the greater the potential for barriers to integrating the product into a buyer's organisational systems and infrastructure, which in turn increases the chance of failure (Van de Ven, Polley, Garud & Venkataraman,1999).

Under these circumstances, marketing communications can be vital for constructing the sense that buyers make of products. The legitimisation of new product categories is argued to occur through individuals and organisations engaging in nascent processes that enable them to give and make sense for purchasing decisions (Navis & Glynn, 2011). Kennedy (2008) shows that high-technology products entering emerging markets (where a product is considered an innovation) can be influenced

by individuals and firms using press releases and news stories, particularly for companies that are 'not-yet-legitimate' in the marketplace. That is, neither the company nor its products have been fully accepted by customers. Moreover, participants in a study of radical product innovation stress the importance of 'talking to the market' (Jones, Suoranta & Rowley, 2013, p.683). Indeed, the construction of 'tellable stories' by marketers can facilitate the adoption of innovations (Simakova & Neyland, 2008). However, although some valuable work has been undertaken in deepening our understanding of the marketing of high-technology products, we concur with Wei and Wang (2011) that further research is needed into the discursive practices underpinning marketing communication, purchasing and sensemaking for these products, especially amongst 'front-line' B2B sellers and buyers.

Communication regarding innovations can be homophilous or heterophilous. These terms can be regarded as synonyms for similarity and dissimilarity (Lott & Lott, 1965) and social closeness and social distance (Barnlund & Harland, 1963). There are two lines of reasoning that support the theory of homophily (Monge & Contractor (2003): the first is Byrne's (1971) similarity-attraction hypothesis, which argues that interactions are more likely to occur among people who perceive similar traits between themselves and others; the second is Turner's (1987) theory of self-categorization, where individuals use personal characteristics to judge others against. Homophilous relationships are thought to be constructed through culturally similar communication, and heterophilous relationships through culturally dissimilar talk, with the former more likely to produce successful technology adoption (Rogers, 2003). It is common, however, for inter-firm communication to be heterophilous (Coleman, Katx & Menzel, 1966; Van den Bulte and Lilien, 2001); and, in comparison to lower technology products, high-technology contexts are thought to present greater difficulties for sales personnel to communicate (Mohr, 2001). Thus, understanding the use of homophilous and heterophilous communication is even more pertinent in high-technology sectors where confusion is more likely, and communicating sense is more problematic. Probert et al. (2013) argue that it is not enough to assume a buyer has sufficient knowledge to grasp the potential of a technology, or product being communicated. There is thus the suggestion that sellers must utilise language that can be understood by buyers and

other potential decision-makers within the purchasing organisation (Dean, 1987). Linguistic practices can be far from simple to interpret however. Therefore, given the over-arching focus of this study on the sensemaking facilitated by the discourses circulating in nanotechnology markets, this review now looks at language use in more detail.

*Language & sensemaking*

The use of wider socio-linguistic constructions for high-technology can obfuscate clear meanings about scientific functionalities (Arnall & Parr, 2005). Nanotechnology is an example of this phenomenon (Puurunen & Vasara, 2007). The discourses surrounding nanotechnology are often polarised as positive, for example where it can act as a panacea to all physical problems; or negative, for example where nanotechnology will destroy all life, converting it into 'grey goo' (Drexler, 1987, p.54). For consumers, Davies (2011, p.317) argues that nanotechnology is a 'postnormal technoscience' in which 'personal experience and expertise, analogies and comparisons, and fiction and popular culture' are drawn upon by individuals to 'weigh up and evaluate emerging technologies'. Constructions of high-technology are based on what Davies (2011, p.317) suggests are the individual's 'desires to create meaning' through the use of linguistic 'toolkits' or, as Swidler (1986) argues, cultural resources. People relate current events to lived experience, including work and academic expertise, forming a local knowledge of the self (Wynne, 2001). This knowledge 'will be a key reference point in dealing with future technologies' (Davies, 2011, p.323), suggesting that these toolkits are part of the discursive potentiality for individuals, including for sellers and buyers to give and make sense of an increasingly complex and uncertain technological world (Sardar, 2010).

Popular culture has long been used as reference point in high-technology sectors for creating conceptual 'products of tomorrow' in R&D (Johnson, 2011). In particular, studies have shown that science fiction (SF) can function as a cultural 'anchor' to provide a discursive shortcut for what a product is or how it works (Marcu et al., 2014). In heterophilous communication however, discursive shortcutting can result in misunderstanding (Coleman & Ritchie, 2011; Dragojlovic & Einsiedel, 2013) because of different sense being made of what is given, especially where assumed anchors are

not in fact shared. While discursive toolkits have been explored for high-technology/nanotechnology in B2C markets (Gaskell, 2005: Davies, 2011; Loeve, Vincent & Gazeau, 2013), consideration of the communication underpinning sensemaking in B2B seller-buyer relationships for such products is limited. Indeed, Bordas (2015) argues that a greater focus should be given towards the use of terminology in technical sales environments. Against this backdrop, Mohr and Shooshtari (2003) suggest that marketing practices need to be continually adapted to facilitate communication of sense between sellers and buyers; and Haverila (2013) asserts that high-technology companies should give greater attention to the language used to communicate sense about such products. This clearly necessitates a deeper understanding of sensemaking and sensegiving processes.

Sensemaking 'involves the ongoing retrospective development of plausible images that rationalize what people are doing' (Weick, Sutcliffe & Obstfeld, 2005, p.409). Huber and Daft (1987, p.151) explain that 'when confronted with an equivocal event, managers use language to share perceptions among themselves and gradually define or create meaning through discussion'. As opaque technology types have the potential to cause confusion, this can trigger the need to make sense of innovative products. Thus people working in high-technology contexts will often use sensemaking to construct a more ordered, simple or preferred reality (Monin, Noordhaven, Vaara & Kroon, 2013; Weick, 1995). Importantly, the process of sensemaking does not require sense made to be accurate. Instead, it can be seen an answer to a question (such as 'What does this product do?') that an individual perceives as adequate to a sensemaking cue (Maitlis, 2005).

Gioia and Chittippeddi (1991, p.442) argue that while sensemaking focuses on 'meaning construction and reconstruction', sensegiving is concerned with 'the process of attempting to influence the sensemaking and meaning construction of others toward a preferred definition of organizational reality'. Individuals undertaking sensegiving to promote sensemaking are not immune to the effects of their own sensegiving, and may be caught up in it (Snell, 2002). In this way, sensegiving is not only a one-way process, as a sensegiving seller gives sense not only to a buyer but to himself or herself as well. Thus sensegiving can be regarded as a complex set of interactions, where all individuals engaging in the process potentially face a reconstruction of sense (Maitlis & Lawrence, 2007).

Rouleau (2005) suggests that sensemaking and sensegiving are interrelated through the use of routines and conversations to construct meaning and produce knowledge. As part of the linguistic toolkit available to them, individuals articulate their vision via the use of metaphor to simplify sensegiving communication (Hill & Levenhagen,1995), providing order and justification for certain actions in unfamiliar situations (Cornelissen, 2012). Moreover, Maitlis and Christianson (2014, p.33) state that 'metaphors play a valuable role in validating some accounts and discrediting others'. There is thus merit in exploring processes of meaning-making around metaphors at the level of people's language use in their sensegiving/making (Cornelissen, Oswick, Christensen & Phillips, 2008).

Sense given and made between individuals is subjective knowledge drawn on through discourse (Ellis & Hopkinson, 2010), meaning that identity is also a critical part of sensemaking (Weick, 1995). This is because discursively sharing knowledge can contribute to legitimizing a community and constructing boundaries to incorporate group members and exclude others. Thus, as Ellis and Hopkinson (2010, p.14) argue, 'the production and display of particular forms of knowledge is at once a sense-making act and an act through which identity is claimed'. From a homophily perspective, cultural closeness is important as a means of legitimizing speakers and their discourses, particularly for how individuals self-categorise and position their identities (McPherson, Smith-Lovin & Cook, 2001). Previous self-categorization studies in the social sciences have focused on a variety of aspects of cultural closeness including gender, race, age and education (e.g. Mollica, Gray & Trevino, 2003; Smith, McPerson & Smith-Lovin, 2014), but there is much still to learn regarding the nature of the identity work that can facilitate homophily in a business context. Moreover, we might ask if the construction of homophily is an offensive or defensive discursive strategy. To help researchers make sense of the linguistic nuances representing and constructing sales interactions, discursive psychology facilitates the study of 'how we negotiate and persuade others of the truth of a version of the world' (Hopkinson, 2015, p.81).

Thus the main research gaps identified from this review entail the need to improve our understanding of how technical sales 'work', or do not, as the case may be; and the opportunity to apply notions of discursive sense-making to this relatively unexplored area.

## Methodology

The study sought to better understand the use of spoken marketing communication in achieving cultural closeness between buyers and sellers engaged in nanotechnology B2B sales. A social constructionism stance was taken where importance is placed on 'conversational and social practices (methods) through which the members of a society socially construct a sense of shared meanings' (Gephart, 1993, p.1470). Reflecting the propensity for sensemaking researchers to favour qualitative methods (Maitlis, 2005), the investigation was based on an embedded, multiple case study design (Yin, 2009). The sampling frame was purposeful, such that information-rich cases (Wengraf, 2004) were selected to represent the nanotechnology sector of interest. To provide an appropriate number of 'experts' (Baker & Edwards, 2012), a total of 13 participants from 12 separate biological nanotechnology companies (i.e. DNA, antibodies, thin-films, and nanoparticles, often for healthcare applications) were interviewed – see Table 1. All companies operate in the UK, and are split into MNE selling, SME buying and selling, and MNE buying companies. SME seller-buyers exist in a sales/purchasing isthmus in the supply chain between the two groups of MNE participants: products sold to SMEs are predominantly described as entering into SME R&D cycles and thereafter the finished product is sold to MNE buyers. It is acknowledged that, from an industrial network perspective, this is a highly focused, small sample (Halinen & Törnroos, 2005). The case context does, however, reflect the sorts of interactions and relationships (including those between SMEs and MNEs) existing within the nanotechnology sector. Thus, the sensemaking of these participants is felt to be likely to capture some of the ways in which diffusion of innovation is discursively facilitated across the broader network.

| Participant | Company Information | Gender | Self-identification | Academic background | Organisational role |
|---|---|---|---|---|---|
| 1. SME CEO | Biological nanotechnology SME – selling and buying | M | Scientist and Manager | Scientist and Management<br><br>BSc Biology, MSc Biology, MBA | Scientist and Selling/Buying |

| | | | | | |
|---|---|---|---|---|---|
| 2. SME Buying/Selling Manager | Biological nanotechnology SME– selling and buying | M | Scientist | Scientist<br><br>BSc Chemistry, MSc Chemistry | Scientist and Selling/Buying |
| 3. SME CTO | Biological nanotechnology SME– selling and buying | M | Scientist | Scientist<br><br>BSc Science, MSc Biology | Scientist and Selling/Buying |
| 4. SME MD | Biological nanotechnology SME– selling and buying | M | Scientist and Marketer | Science and Marketer<br><br>BSc Biology, MSc Biology, MBA | Scientist and Selling/Buying |
| 5. SME CFO | Biological nanotechnology SME– selling and buying | M | Scientist | Scientist<br><br>BSc Chemistry, MSc Chemistry | Scientist and Selling/Buying |
| 6. SME CTO | Biological nanotechnology SME– selling and buying | M | Scientist | Scientist<br><br>BSc Physics, MSc Materials | Scientist and Selling/Buying |
| 7. SME Buying/Selling Manager | Biological nanotechnology SME– selling and buying | M | Scientist | Scientist<br><br>BSc Physics | Scientist and Selling/Buying |
| 8. MNE Seller | Biological nanotechnology MNE– selling | M | Scientist | Scientist<br><br>BSc Environmental Sciences | Scientist and Seller |
| 9. MNE Seller | Biological nanotechnology MNE– selling | M | Scientist | Scientist<br><br>MSc Chemistry | Scientist and Seller |
| 10. MNE Seller | Biological nanotechnology MNE– selling | M | Scientist | Scientist<br><br>BSc Chemistry, MSc Engineering | Scientist and Seller |
| 11. MNE Buyer | Biological nanotechnology MNE– buying | M | Scientist | Scientist<br><br>BSc Biology | Scientist and Buyer |
| 12. MNE Buyer | Biological nanotechnology MNE– buying | M | Scientist | Scientist<br><br>BSc Biology, MSc Virology | Scientist and Buyer |
| 13. MNE Buyer | Biological nanotechnology MNE– buying | M | Scientist | Scientist<br><br>BSc Chemistry, MSc Chemistry | Scientist and Buyer |

**Table 1** – List of participants & case organisations

In Table 1, the first column reflects the titles given to participants by their host organisations; the fourth column is how these actors discursively constructed themselves in the interviews; and the sixth captures their day-to-day activities. The significance of their apparent disparity between many of these identities, especially between organisational designations and self-identities, will become apparent in the analysis of the paper.

In-depth semi-structured interviews were carried out in private at each company. Demonstrative questions included: What is your role within the company? And how does this impact on selling/buying within the company? Which products do you sell/buy? How is marketing communication used in selling/buying in your marketplace? And what is your view of using spoken communication to help people understand products? Such questions were based on themes identified in our reading of the literature and a desire to prompt relevant discussion. Interviews were undertaken in an open, conversational manner which allowed participants to provide additional insights into sensemaking processes (Potter & Wetherell, 1987; Rapley 2004). The collection of data involved a largely emic approach (Kottak, 2006), but with a degree of etic work also being undertaken as the lead researcher had been sensitised to the academic literature and the sector: he possessed qualifications in the natural sciences, and had carried out high-technology R&D and marketing. This allowed a high level of access to participants that might not have been possible if he had been viewed as an 'outsider' (Layton, 1988).

Interviews lasting between 55 and 105 minutes were recorded by dictaphone. A 'draft' transcription was completed within twenty-four hours (cf. Eisenhardt, 1989), which was liable for further amendments. While it was not deemed appropriate to capture every pause, verbal intonation and non-verbal practice, transcripts did contain what was perceived as relevant to 'maintain the message' (Bavelas, 1990, p.6). Following the classic member checking approach (Lincoln & Guba, 1985), transcripts were then returned to participants to confirm whether they were perceived as an accurate reflection of the interviews carried out (Miles & Huberman, 1984). No significant amendments were requested, and these were thus considered as the final transcripts. The transcriptions were read several times, as well as re-listening to the recorded interviews to gain an overall feel of the main emergent

themes via content analysis. Discourse analytical coding was then carried out, seeking to capture the importance of themes to participants, and starting to contextualise them in light of the study's aims. This in turn led to the identification of the most prominent themes and discursive constructions, and the plotting of patterns of their occurrence. A key part of the discourse analysis process involved warranting which 'consists of providing justification and grounds for one's claims' (Wood & Kroger, 2000, p.163). This was achieved by the lead researcher detailing the procedures utilised throughout the discourse analysis to act as an audit trail (Guba, 1981) and included peer debriefing (Guba & Lincoln, 1985) as all three authors reworked the data several times, confirming themes within each interview and between interviews, to ensure a high level of inter-coder agreement.

**Data analysis and interpretation**

Following a brief reflection on the profile of the interviewees, this section notes the significance of 'nano' terminology in achieving sensemaking, then shows how sellers (and some buyers) construct science in relation to marketing, and in so doing position themselves, before highlighting the 'ocean' of competing discourses with which they claim they have to contend. The analysis then looks more closely at how participants claim to use their talk to achieve homophily, including simplification and a variety of linguistic tools, before concluding with the perspectives of buyers on how sense is given and made.

Perhaps tellingly, all participants were male and had university science degrees, the majority postgraduate. This corresponds to the typical profile of consultative sellers in B2B settings who are less likely to be women and who are very often college educated (Moncrief et al, 2006). The backgrounds of each interviewee reflects the need for most high tech firms to recruit salespeople from technical/production functions either externally or, more often, internally (Gounaris, 2016). Almost all self-identified as 'scientists':

Look [laughs], we all came into this game from science, and have some pretty, mmm, pretty screwy ideas of how sales worked. Doing it taught me you can't pre-plan everything. Sure, I'd like to! I'd love to have a tiny script and reel it off. Don't work, it just doesn't work. Has to seem real. (MNE seller - P9)

The final assertion here suggests that it is the appearance of genuineness that is important, as opposed to necessarily being 'real'. Real or not, all participants confirm the importance of using appropriate language to attempt to manage risk, and arguably facilitate homophily, in this 'game'. For example, an SME CFO (P5) comments, 'I need to make sure the other fella understands me, otherwise I won't buy. Who knows what I'd get?'

*The selling of 'nano'*

Interestingly, in terms of what buyers may 'get', the claim is also made by all speakers that it is better to use the term 'nano' than 'nanotechnology' since the abbreviated form demonstrates an industry insider status. This means that products are frequently introduced under the umbrella of 'nano constituents' and sales meetings are framed as 'nano meetings'. For example, P1 states, 'We want to buy and sell nano everything. It has to be nano something! But we are realistic and need t'make sense. So we buy our nano protein, but it is nano alcohol dehydrogenase, not alcohol dehydrogenase'.

The word nano is thus a potentially powerful symbol, capable of shaping sales interactions and increasing or decreasing social distance, sometimes to reassure others in the buying organisation. Indeed, as P3 comments, 'I sometimes have to, to, put in some nano lingo, make it sound nano, otherwise buyer management gets suspicious'.

Nevertheless, most participants state that 'canned' or detailed pre-planned discourse is not helpful to selling or buying for nanotechnology products. This style of talk is criticised by many speakers, particularly the MNE buyers, with P11 claiming:

It annoy, annoys, the hell out of me when some ass reads me a script. Credit me with some intelligence. We are not selling Mars bars and I really don't like it. Show me, show respect and talk to me like a scientist.

Note how the use of 'Mars bars' as the contrastive subject matter indicates an unfavourable marketing communication strategy by highlighting an arguably mundane, low technology consumer product.

*The 'lies' of marketing*

Importantly, we can see in the quote above the claim of a 'scientist' identity. What resonates strongly from all the interviews is the extent to which participants regard marketing as quite separate from, and indeed less respectable than, a natural sciences discourse. Even though something called 'marketing' is acknowledged as 'useful' in the sales process, responses regularly construct scientists as truthful and marketers as deceitful, as the examples in Table 2 show.

| Participant | Examples of talk |
|---|---|
| 1.SME CEO | Scientists and marketers are different. They just are! We speak the truth and they lie! But we sometimes have to use marketing in sales. |
| 4. SME MD | Marketing is the language of the devil! You can use it to sell, but beware! As soon all that will come out of your mouth is lies. |
| 10. MNE Seller | Use the "5 P's?" You must be joking! No one would ever believe me again! I have to find ways to sell without looking like a seller, or at least I can as long as I look like a scientist seller. |

**Table 2** – Constructing marketing vs. science

Given this perception, how can scientist sellers achieve their goals? While persuasive rhetoric is argued by speakers as being capable of promoting their agendas, the receiving parties' perceived scientific knowledge is pivotal for prompting the language that is used. For example, as P9 describes it, 'I have to be careful! I mean, I want to persuade, but a good scientist will see them as blatantly manipulated claims. So it's gentle persuasion. Like, we both know this works'. However, the same participant states:

> If I'm selling to someone with little science knowledge, ummm, well I can get away with more to convince them of the truth of what I'm saying. So! Let me see! Ah, yes, here we go! "As a scientist you can trust me, as the pH is what does it".

P6 claims that in similar situations he will:

> Throw a lot of techie words, but do it confidently. You know, well [waves hand in the air], "Nanoparticle A joins to nanoparticle B and we have your product, salt reduces cost, the salt makes it work better. Salt? I meant NaOH!" At this point they believe me.

Rather than embracing homophilous communication, both these quotes indicate that the speakers are happy to 'get away' with whatever it takes discursively to achieve understanding.

*Making sense in a 'sea' of discourse*

Gaining this 'belief' or 'trust' remains a discursive challenge however. Via a plethora of water-based metaphors, participants describe what can be likened to traversing a sea of discourse (Searle, 2010) outside of their dyadic relationships which shapes and defines organisational realities, and which has to be navigated to purchase and sell successfully. P1 states, 'It doesn't matter who you are in this business, and what your position; you are always swamped with chatter. It's everywhere!' Suggesting that sales talk is potentially influenced by more widely constructed and communicated meanings about nanotechnology, speakers discuss how this creates confusion in selling and buying. An P8 claims, 'It is a flood of yattering about nano! We are deluged by it, y'can turn on the radio, television, newspaper, and everyone is talking about it. I have to compete against this when selling'.

With all participants ultimately identifying as scientists, they are keen to assert the limited influence that wider discourses have on them; although this can vary. Thus, for P1, 'A good scientist can sift through this junk from the press and [recognise] real science'. Yet in cases where apparently unscientific questions are asked by people from inside or outside the organisation, an MNE seller (P10) argues that, 'The important thing is to quickly shut their ideas down, and re-orientate them

towards our scientific view (…) We can't sell fantasy. I tell people that their idea is sci-fi and it can't be made'. Thus, a form of what we might term 'sense-breaking' is arguably taking place, where held meanings are re-orientated towards the preferred sense of the speaker.

Having said this, and reflecting the observations regarding the totemic value of 'nano' above, both SME sellers and MNE buyers suggest these conversations to be a process where they do not always challenge the 'awesome' perceptions of what is real or possible with nanotechnology. As an MNE seller (P9) argues:

> I never want to challenge the wonder and awe of nano. The magical image has to stay, but obviously we can't buy such products. Scientists know this, non-scientists don't! I have to convert them that nano is the only game in town.

This suggests a belief amongst scientist sellers that homophily can be constructed through language 'games', depending on the knowledge level of nanotechnology held by the buyer. So how is this achieved?


*Keeping it 'simple'*

All participants indicate that product discourse should be simplified in initial interactions. This is until an understanding can be reached between sellers and buyers for the level of scientific complexity to use. One MNE buyer (P11) comments, 'I work with the seller and he works with me, together we reach, decide I mean, how much product complexity to engage with'. A general high level of technical knowledge is argued as necessary within nanotechnology, but with it not being possible to be knowledgeable about all products. As an MNE buyer (P12) states:

> Who can know everything? Better to be safe as opposed to upsetting someone with presumed knowledge. Every-day stuff, not too bad I guess, but anything new can be confusing and we need it dumbed down, at least in the interim.

Bespoke products appear to be more troublesome for sensegiving, and can necessitate the co-authoring of new understandings in sales meetings. Thus an SME CTO (P6) argues, 'Regular sellin' and buyin' [in a mock American accent], it's as easy as pie! New products though, takes time to figure out what to say. I need to make sense and he needs to understand'. Even though a need to give sense is acknowledged, note how the ironic American accent and expression ('easy as pie') serves to distance the speaker from the stigma of selling. Nevertheless, most speakers acknowledge that relying on technical discourses and concepts is not enough to keep conversations homophilous even though they almost all identify as scientists.

*Using linguistic tools*

However much nanotechnology concepts are simplified within sales talk, in practice the risk of heterophily and inadequate sensemaking never seem to be far away. Three sets of linguistic tools are claimed to be used by participants to overcome potential miscommunication and to give sense for complex products: references from popular culture, grand narratives and metaphors.

- *Popular cultural references*

A frequently cited reason by the majority of speakers for using popular culture as a linguistic tool is captured by P10, 'We all have a life out of work, and as much as tech talk is important, if we can get the message across via yapping about what we saw on TV, I say [pause], use it!'.

The significance of SF as a cultural reference for nanotechnology is noted by all participants; and examples of such talk are shown in Table 3. As well as providing a powerful sensegiving mechanism, SF-inspired imagery also seems to occur simply because scientist sellers and buyers avidly consume this genre. Arguably, this may reflect the dominant male gender of these individuals – note the dismissive, stereotypical 'My Little Pony' contrast used below. Thus P4 explains:

> I'm a scientist [pause], he's a scientist [pause], we're, we're sci, scientists [pause], we don't
> want to talk about My Little Pony! Sci-fi is the closest thing to what we do, and we love it, so
> yeah we use it for sales.

| Participant | Examples of talk |
|---|---|
| 2. SME Buying/Selling Manager | Everyone I know in this biz loves Star Trek, so let's use it. Beam me up Mr Nanoparticle! [pause] Star Trek makes us think of something we love, reminds us we are working towards a greater logical good. We, I need this, otherwise I'd not be arsed to put any effort into buy or sell. |
| 4. SME MD | Even if I can't directly link what I'm buying or selling to sci-fi, I still use it. Do you have any idea what a tech conversation purely on tech is like? Hard! We need to build solid relationships, ummm, it's about what we say, and in this feckin biz, well y'know, we need to inspire each other, and, ummm, ourselves, and sci-fi is perfect. |
| 13. MNE Buyer | Say I'm getting bogged down in tech regulation, I try to find a similar theme in comics. We all read them! I'm a Dredd Head, and I know the seller is too. So instead of just saying legal whatever, I do my Dredd voice and say "This is a matter of law citizen, and your compliance is required! These perp nanotubes must be regulated" [laughs], so he knows it's a legal compliance issue and will remember it. |

**Table 3** - Cultural references in sensegiving and sensemaking

This tool also facilitates the construction of participant identities as members of an elite social group ushering in a brave new technological future. As P5 comments, while he performatively constructs his identity through physical action as much as language, 'Come on now [pause], we all love sci-fi. It hands down promotes us as super knowledgeable, although sometimes morally ambiguous! [laughs and pats thighs]'. This view is echoed by other speakers who argue that classic SF promotes a view, however idealistic, of the infallibility of science, as noted by P8:

Science has its problems but we don, don't want to discuss them. We want the 1950s view of science back, and okay, maybe it's not right, but we prefer it. Or look at it a different way, even in films, we cock the planet up, but at some level the tech still works.

Referencing SF in this way suggests a discursive vehicle for these individuals to concretise a mutual, albeit somewhat narcissistic, view of themselves and their actions.

- *Grand narratives*

As the quote above suggests, often coupled with the evocation of SF is the use of grand narratives (Lyotard, 1979) by participants that allow them to legitimate their stories. The master narrative at work here appears to be that of 'science as right', as P6 nostalgically implores:

> I just want a simple world view that is certain, like science, giv, gives, or used to [voice raising in volume], and selling and buying should be like this too! Let's go back to the view of science as right!

Further variations of this grand narrative are employed in the examples shown in Table 4.

| Participant | Examples of talk |
|---|---|
| 2. SME Buying/Selling Manager | Some days, a, are hard. They just are, someone pissed someone off and now the sales meeting sucks. Really sucks, and we are grindin' against each other. Usually one of us says something like, "They would be a dick though, they don't know what we know, we are the real scientists" and this lets us start to move back together again. Talk more and get things goin'. |
| 4. SME MD | When in doubt talk about the wonder of science, believe me it works. We guys can't stay mad when you do [laughs]. It's like being in a special club and we need to remember, the, this at times. |
| 12. MNE Buyer | Ah, ah, let's get stuck into how fucking awesome science is! Yes, I mean I use this in sales meetings all the time. Gets us both fired up for selling and buying. It legitimises us as great guys helping the world. |

**Table 4** – Grand narratives in sensegiving and sensemaking

These grand narratives can also promote a scientist self-identity. This appears to matter to interviewees whose cherished position as someone knowledgeable about products, and indeed the wider world, can be 'eroded' in organisational life. P1 comments:

> As a scientist, we know we see the world the, the way it real, really is. Science lets us do this [pause]. Anyone who's not a scientist might attack our knowledge of this, and it can be an erosive and upsetting process.

Thus participants describe a need for grand narratives to persuade themselves as much as their customers of the 'wonder of science', thereby giving them the motivation to continue with selling and

buying. An MNE seller (P10), again using an ironic American accent and expression ('Kinda like therapy') to maintain his distance from the selling process, describes this as, 'being helped to re-believe in what science is, and what I am as a scientist. Helps me do ma day-to-day selling [in a mock American accent]. Kinda like therapy'.

- *Metaphor*

The last linguistic tool to be considered is the use of metaphor, which also finds favour in describing complex physical functions related to nanotechnology products in B2C environments (Davies, 2011). Prior to this study, the use of metaphor in B2B sensegiving/sensemaking had received scant attention, but some vivid examples of metaphors used by participants in this study are shown in Table 5.

| Participant | Examples of talk |
|---|---|
| 2. SME Buying/Selling Manager | Nanoparticles are the smart bombs of our arsenal. You buy this and it selectively destroys that cancerous enemy. |
| 3. SME CTO | We add in some single-walled nanotubes, and yup, these things are like laying the information super highway on your spine. No movement yesterday, it's coming tomorrow. |
| 4. SME MD | I've got to say, colloidal nanoparticles are the warrior elite of antimicrobial products. Mmm, they really go in't battle for you. |
| 9. MNE Seller | By the time we, have, we have sputtered you a nano film, it's a shield wall. Thousands of knights with their shields protecting your surface against corrosion. |
| 10. MNE Seller | It's a Spartan shield baby, it gives a physical wobble when anything hits it and deflects it. Leonidas couldn't have asked f'r better. |
| 11. MNE Seller | This OLED nano product, it's a terminator, and absolutely will not stop. Unless you press the stop button that is. |

**Table 5 -** Metaphors in sensegiving and sensemaking

Perhaps indicative of a macho stereotype inherent in the male-dominated world of nano marketing, militarily-based metaphors are widely used to transfer meaning to nanotechnology products. Reflecting on this use of military imagery, P3 argues: 'A lot of what we do is to protect against disease, so it makes sense to use militarism to achieve this'.

Although all speakers claim to use metaphor as a 'tactic', there is some discussion about the extent that this might misrepresent science. As P7 comments:

> Fuck it! Yeah, I use these things, but does it mean I'm happy? No! It distorts the science, what the product really is and all that. What am I to do though? Some scientist, eh? I do what I know works, and this means using these tactics.

Talk of tactics suggests a degree of pre-determinism in boundary spanners' language use, although it is possible that some participants may have only become aware of this after the event. Nevertheless, strategic discursive intent is suggested by the reflection shown by other participants who claim to feel uncomfortable about the use of these linguistic tools or 'tricks'. Thus P1 asserts, 'We all have our hands tied. Nano is ridiculous for the terms used. Does anyone really get it? We have to do what we do and distort the science. Personally, I feel using these tricks is a bastardisation'. This highlights the tension described by interviewees in using what they construct as the necessary evil of marketing falsehoods to sell and buy. Nevertheless, although participants often discuss communicative challenges, it appears that they rise to meet these challenges with any discursive tool available to them.

*Buying nanotechnology*

So what do buyers make of these sensegiving efforts? Participants stress that making sense of a product is the result of a complex conversation as both parties co-author the meaning of nanotechnology. An MNE buyer (P8) says:

> How I make sense is through a state of flux! He says something, I think about it. So I say something, he thinks about it. We talk, interrupt each other, and eventually we start to get each other. It's not as simple as him walking up and saying "I've got a product" and I buy it!

This suggests that sensegiving and sensemaking of nanotechnology is a dynamic, adaptive, dialogical and mutual process, with both seller and buyer actively involved. It seems that different levels of sense

are being made throughout the interaction until a point is reached ('hopefully') to make a purchasing decision. An SME buying/selling manager (P7) explains:

> My understanding often goes up and down. Yeah, on what the other guy says, and what I think of it. Can I contextualise it? And on and on this goes. Hopefully there is the eureka moment! I want to scream, "Yes, yes, I bloody well get it!"

A commonality is perceived to exist between speakers, where a 'good enough' view is often sufficient to make a decision to reject or purchase a product. However, being overly simplistic in an attempt to achieve homophily can be just as problematic as being overly complex, and a balance between scientific credibility and customer understanding is needed. As P1 says, 'Hmm, it reminds me of Goldilocks and the Three Bears. You are looking for the one that is just right'. The decision is typically framed as being driven by the co-construction of meaning enabled by the simplification of product functionality via linguistic tools such as metaphors. For instance, P5 states:

> How I make decisions, is, well it's a complicated mess. A cacophony of me, life, mine, I mean my environment. What the other chap says. He is like a conductor, if he's good that is. He guides me along a path to understand, or not if he's no good. A detailed but simple explanation, fun, imaginative, colourful references. Make me see it, the nanoparticle blows up the bacteria, why not? All helpful! Can he do this? With help from me. Look baby, I'm not passive here. It's a two-man party.

While both parties work to achieve understanding, the significance of power asymmetry is also sometimes noted by participants. This is seemingly predicated on perceptions of the relative size and wealth of a company, as well as its expertise. This was discussed by P7 who effectively reminds us that talk is not all that 'matters' in B2B relationships: 'We all talk and try to understand, but let me tell you what matters. It is money, size and knowledge that can be the decider in what goes and what is agreed'.

**Discussion**

The claims made in participants' responses confirm the importance of spoken discourse in nanotechnology buying and selling. There appears to be a belief that interpersonal 'talking' is the optimum way of producing enough sense to sell and buy these complex products (cf. Mohr et al, 2001). Discussing this, an SME CTO (P6) asserts:

> Of course we can communicate in any way we want (…), but we need stuff that works, and talking is the best way to do this. (…) Tech products are a nightmare, always new, always coming out of R&D, and we literally have to invent what to say about them.

Undertaking a co-authored (Shotter & Cunliffe, 2003), reflexive stance towards reaching understanding, interviewees describe sales interactions where discourse is the currency used to enact ('invent') their firm's products and, in so doing, their self-identities. It appears central to the diffusion of innovative products (Rogers, 1962) in B2B contexts that the legitimacy of the 'scientist seller or buyer' is recognized amongst other scientist sellers and buyers of nanotechnology. Boundary spanners who position themselves as 'scientists' can induce a sense of belonging within an elite group carrying out business activities by discursively othering non-scientists and what are perceived as non-scientific discourses, such as marketing.

Within the in-group composed of scientist sellers and buyers we find the use of homophilous communication (Rogers, 2003) which facilitates sensemaking (Weick, 1995). Speakers frequently discuss cultural closeness as a vehicle to aid in purchasing decision-making (Song & Parry, 1997). Homophily seems to be enacted by participants drawing on similar role identities and preferences for ways to speak about nanotechnology. However, interview responses also indicate the fluid nature of homophily/heterophily, where linguistic moves can shift discourse towards or away from cultural closeness. Crucially, these shifts are underpinned by utterances which do not have to necessarily be correct, but sound 'right enough' to be accepted. Thus P4 claims, 'You don't have to be right, only right enough. No scientist really understands another scientist absolutely. It is about sounding right, and not being completely wrong'.

In attempting to 'sound right', it appears that the word 'nano' is often added to conversations to enhance homophily, not only within the sales meeting, but also throughout wider organisational discourses. As well as showing an insider status, the use of the term also reinforces the sometimes elite nature of the communication 'game' being played. As P5 notes, 'You have to use the right words, play the game, show that you are legit and not a faker, and saying "nano" does this'.

While prior studies have explored people's ability to build homophily based on a variety of cultural categories (e.g. Mollica et al, 2003; Smith et al., 2014), this is the first study that has highlighted the self-identification of scientist sellers and buyers in B2B relationships. Examining the discourses of these actors has revealed a group that constructs an identity contrary to their designated organisational role as sellers and/or buyers. Moreover, this group typically dismisses as damaging to their central identity as scientists, language associated with commerce and marketing. It is perhaps too easy, however, to assume that these individuals do not engage in some form of marketing discourse. What appears to be happening is that, as they feel they cannot be seen by fellow scientists to use what is commonly regarded as terminology associated with the stigmatised field of marketing, new ways of speaking have been imagined and enacted by participants in line with their central identities (Goffman, 1990). This is highlighted by P3:

> We have to avoid using marketing speak, but damn it, we still have to market these products! I should have a magic wand where I can wave it to create better more acceptable ways of saying what we need without sounding like bloody marketers.

A variety of linguistic tools have been argued to facilitate these ways of speaking to aid sensemaking for high-technology products (Davies, 2010; Sardar, 2010). These discursive practices are built on the notion of cultural anchors (Marcu et al., 2014) where sense can rapidly be made as a consequence of 'enough' understanding of a cultural reference, limiting the amount of scrutiny made of a statement (Coleman & Ritchie, 2011). For instance, dystopian constructions can be problematic in heterophilous contexts as potentially causing confusion (Dragojlovic & Einsiedel, 2013), this study demonstrates that homophily allows a wider use of 'negative' metaphorical constructions, without necessarily

leading the sensemaker to regard a product negatively. For example, SF 'Terminators' are orientated towards genocide but can be used to showcase product robustness, as scientist sellers and buyers are claimed to be able to differentiate between beneficial discourse as a marketing device and how a product 'really' works. As P12 confirms, 'Just because a negative example is used, doesn't make a product bad. As long as you get enough of the science, you can understand it well enough, and in fairness all products have negative aspects'.

Through its discourse analytic approach to the talk of nanotechnology sellers and buyers, in part this study builds on the work of Kennedy (2008) and Krush et al. (2013) on communication in the marketing of innovative products. It also addresses the call from Bordas (2015) that greater attention should be paid towards the use of technical terminology in sales environments. The use of such terminology is shown to aid sensemaking where it reflects and indeed constructs homophily, but can also create confusion and impede sensemaking where interactions are heterophilous. In this way, technical terminology can act as a sensemaking cue, requiring discursive tactics for sensegiving such as simplification and the use of linguistic tools, often through cultural resources like SF. The exploration of fictional discourses by managers has been limited (e.g. Hansen, Barry, Boje & Hatch, 2006). The current study has explored these discourse in a high-technology sales context, as discursive elements of what are constructed as scientific 'fact' and 'fiction' have been brought to the fore as speakers draw on lived and imagined experiences. A final quote from an SME buyer/seller manager (P7) exemplifies this reflexive language game:

> It is a funny old mix really, I fuse science fact with science fiction, unofficially of course, as science is fact, and so is all of our communication.

**Conclusions**

The study's contribution is to have critically explored the marketing communication challenges faced by scientist sellers and buyers who, in a 'sea' of discursive confusion, must give sense about high-technology products to facilitate sensemaking in these B2B nanotechnology sectors. Findings indicate

that sellers and buyers are acutely aware of the difficulties in discursively constructing high-technology products and the resulting challenges for sensegiving and sensemaking. These actors predominantly identify as scientists rather than sales people or purchasing managers, and use discourses they believe to be acceptable within what they see as a scientific community. The rationale for employing scientists in these roles seems to be due to the knowledge these individuals can bring to make sense of technically complex discourses. Moreover, the ability of the scientist seller or buyer to know when to use technical terminology and when to simplify and/or use alternative discursive tactics is perhaps one of their most valuable attributes. In this regard, it seems the construction of homophily and heterophily can be viewed as both an offensive and defensive strategy.

We speculate that homophily is more likely amongst scientists due to what may be considered an overt link to positivist thinking, where truths are more likely to be single and defined, in comparison to greater divergent views amongst non-scientists. All participants claim to exist in predominantly homophilous sales relationships based on their mutual identities as scientist sellers and buyers, but with a potential for conversations to move into heterophily. This aspect of the sales interaction is depicted as being part of a game that is sometimes inevitable but which is considered unhelpful for sensemaking by both sellers and buyers, with a need for both parties to re-orientate conversations back to homophily. Using overt marketing or business terminology with other scientist sellers or buyers is claimed to be avoided due to the tendency of this type of language to undermine the speaker's scientist identity. This almost sacrosanct identity is apparently sullied by being associated too closely with the stigma of commercial discourse. The result can be a lessening of cultural closeness in the sales relationship.

Intriguingly, while discursive obfuscation is a relatively rarely described phenomenon, complete clarity in selling and buying is not always preferable, even between fellow scientists. By employing more simplified technical terminology and a variety of linguistic tools to give and make sense, the notion of a co-authored selling-buying discourse becomes prevalent, where an approach is taken by both parties using language that is 'good enough'. This language allows sense to be given and made, detached from the functionality of a product and with limited need for participants to understand how

the product 'really' works. In this way, sales-related nanotechnology talk fluctuates between 'science fact and fiction'.

*Implications*

In B2B contexts, the 'training of many managers is not always adequate when trying to understand the phenomenon of communication' (Michel, Naude, Salle & Valla, 2003, p.268). Ellis and Hopkinson (2010) draw attention to the difficulties for marketing managers in using 'off-the-shelf' strategies for conducting sales relationships. Instead, it is suggested that individuals who view each other as heterophilous may need to interact and discursively work on areas that can draw them close to each other (cf. Smith et al., 2014). This is not about producing a 'how to' guide for sales managers (Faria & Wensley, 2002) but more about encouraging boundary spanners to becoming reflexively open to engage in their own sensegiving and sensemaking for high-technology products. While this is no small undertaking, it appears that the sellers and buyers in this study already feel capable of carrying this out, as evidenced in so many of their interview responses. Moreover, as this will likely entail a great deal of discursive flexibility, a further area for consideration becomes the degree to which more nuanced salesforce messages can be integrated with the firm's overall marketing communications in a single coherent strategy (Gounaris, 2016).

This study only considers scientists who sell and buy, yet most participants also claim to deal with non-scientist sellers and buyers, and thus have to negotiate situations where heterophily is more likely. This has implications for wider B2B relationships since using the discursive tactics outlined above not only offers more effective routes to immediate understanding, but also gives buyers the opportunity to tell subsequent stories about what has been said. This can provide justifications to senior management for decisions made, thereby enhancing the rate of diffusion of innovation. This may also overcome communication problems when sellers and buyers need to explain technical aspects of nanotechnology to non-scientists within their companies, as they can tell an appropriate tale (cf. Simakova & Neyland, 2008) by recounting meanings that have already been co-constructed through sensemaking in the conversations that have underpinned the sales interaction.

*Further research*

As the study progressed, the lead researcher observed a growing recognition amongst participants of the value of understanding the discourses surrounding the selling of nanotechnology. This has resulted in an open invitation by CEOs from eight of the case organisations to carry out further research into B2B selling and buying. Methodologically, numerous further qualitative techniques are possible, but ethnography is considered particularly pertinent to build on this interview-based study as there is much still to elucidate about what scientist sellers and buyers actually say and do in their day-to-day activities. Moreover, given our access in this study solely to male participants, further research is required to better understand the roles of women boundary spanners in B2B arenas and in particular in high technology. Additionally, it would be of interest to extend the study to less technical contexts to explore whether sellers are more or less likely to perceive 'marketing' as discrete in the sales process. One further question that might be addressed is whether there is intent on the part of salespeople to provide stories that resonate sufficiently with buyers for them to be adopted in turn to aid further diffusion of innovation?

It would also be of interest in different hi-tech sectors (including where the complexity of products or platforms is arguably outstripping the ability to have a common discourse, such as Big Data analytics) to see how people constructing other scientist-related identities might draw on particular discourses and linguistic tools to make and give sense, thereby further exploring how boundary spanners see themselves, see others, and believe others see them (Lawler, 2013; Vafeas, 2010). This may matter for scientists required to occupy sales-based roles since wider societal perceptions of salespeople are not always positive (Lee, Sandfield & Dhaliwal, 2007). As this study has shown, undertaken reflexively, talk about high-technology by scientist sellers has the potential to confirm and, perhaps, even to overcome such impressions.

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