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RESEARCH ARTICLE OPEN ACCESS

Boundary Objects at Play in the World's Greenest Football Club

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ABSTRACT

In the face of increasing environmental and societal pressures, organizations are gradually moving away from merely reducing their detrimental effects toward making positive impacts. One sizeable sector of economic activity, that is frequently overlooked, is that of sport, of which football is the largest in terms of economic value, fan base and global cultural influence. It is only relatively recently that outliers in the football industry have transitioned from being purely profit-motivated to being both socially and environmentally aware. This transition is challenging since it is being undertaken within the often aggressively masculine environment, as well as the deep-seated socio-historical origins and contexts of the individual clubs and the sport as a whole. One such outlying football club is Forest Green Rovers which appears to have navigated this journey successfully. However, research has yet to understand “how” this has been achieved. This study addresses this gap through a 4-year examination of the social and environmental initiatives of Forest Green Rovers. This lower-league “club on the hill” is globally recognized for its novel approaches and solutions. Through examining the various Boundary Objects that aid in uniting disparate social groups in order to effect considerable changes to the “match day experience” and to stakeholders' consumption behaviors, it explains how their pragmatic, syntactic, and semantic functions combine to create an accepted suite of socially and environmentally beneficial initiatives.

JEL Classification: M39, Q50, Z2

1 | Introduction

Football's recent history has been associated with deviant behaviors (Winands and Grau 2016) such as violence, right-wing politics, racism, and gender exclusion (Dixon, Lowes, and Gibbons 2016; Van Sterkenburg and Spaaij 2016; Schlesinger and Weigelt-Schlesinger 2012). It has never been far from visceral critique, sanction, vilification, and media polemics (Brunzell and Söderman 2012), as it is said to encapsulate “inequality, short-termism and greed” (Lee 2001, 32).

Recently the sport and its constituent football clubs have evolved into an economically viable business for improving the wellbeing of individuals and places (Taylor and Pringle 2021). These

changes have seen the emergence of football clubs that have moved away from their historic roots toward overt commercialization (Brown 2008; Thomas 2020; Thomas, White, and Samuel 2021). Despite this, some outliers in the industry are seeking to add a progressive dimension to the sport's genesis of “the twin powers of football and community” (Sanders et al. 2014, 214). This has resulted in a newfound emergence of community- and fan-owned clubs, as more and more fans have become “increasingly alienated from corporate ownership and commercial imperatives” (Totten 2016, 703). Such clubs have become characterized by empowerment and the desire to exact commercial change, tackle profound social issues, as well as promote co-creation and the well-being of the “marginalized” (Thomas 2018; Kolyperas, Morrow, and Sparks 2015; Kennedy

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Summary

- Drawing upon Boundary Object theory this study explores novel organizational changes that effect positive social and environmental change.
- It explains how pragmatic, syntactic, and semantic Boundary Objects combine to create holistic, credible, and accepted social and environmental beneficial initiatives.
- Organizations may take advantage of the uniting power of Boundary Objects and their pragmatic, syntactic, and semantic functions.
- This examination of the operation of Boundary Objects to bridge different stakeholder groups in the pursuit of improved social and environmental performance indicates the importance of the primary organizational purpose.
- Organizations should be mindful of the dangers that are imposed by subverting or occluding the foundational Boundary Object that is its own fundamental purpose.
- Football should be recognized as a global cultural influence capable of influencing prosocial and environmental behaviors.

and Kennedy 2013). Consequently, football has become increasingly concerned with a desire to provide “pre-modern” forms of local community bonding and a “location of sustenance” (Brown 2008, 350). Some clubs now provide education and re-education (Winands and Grau 2016; Samuel et al. 2021) as their grounds have become “community stadiums” that provide “learning resources in a familiar environment [that] could help people make ‘better choices’ as citizens” (Sanders et al. 2014, 415). Martin et al. (2016, 175) conclude that ultimately, football is “delivering success in a range of lifestyle-related behaviors.”

While there is considerable evidence to demonstrate what changes have occurred within football, so far, little has considered *how* those changes have been made. This study addresses this by pursuing the research question “how have these transitions been navigated?”

We argue that football as a sport is profound arena to conduct such a novel study because as Goldblatt (2019, 2/3) posits.

Football is first: First amongst sports themselves, first amongst the World’s popular cultural forms. The game commands the allegiance, interest, and engagement of more people in more places than any other sport. Its weight, relative to other cultural forms and industries has also sharply risen. It bears comparison with the World’s religions, not as a system of belief but in the scale, regularity and profundity of its cycles and rituals.

Utilizing Boundary Objects as the theoretical lens, a 3-year case study examination is made of Forest Green Rovers (FGR) football

club. FGR has grown from being a little-known “club on the hill” to a global leader in the development of social and environmental initiatives (Samuel, McGouran et al. 2022; Samuel, Thomas et al. 2022). Along with its use of renewable energy sources, it has introduced player’s kit that is made of bamboo, a playing pitch that is fed on seaweed, and fully integrated sustainability systems. The sport’s governing body, FIFA, has recognized FGR as “the world’s greenest football club,” it is the first football club to sign up to the Eco-Management and Audit Scheme (EMAS) and their owner has been appointed a United Nations Climate Change Ambassador (Euractiv 2019). It is recognized for its promotion of family-friendly values and atmosphere, has become world-renowned for its vegan-only ethos and practices (White, Samuel, and Thomas 2022), and is the world’s first football club to receive the Vegan Trademark (The Vegan Society 2017; Euractiv 2019). As such, it represents a radical shift from “traditional” venues in this sport (Samuel, Thomas et al. 2022) and presents itself as a novel outlier of note and suitable to inform the practices of others beyond the sport.

1.1 | Boundary Objects

Boundary Objects (BOs) were theorized by Star (1989) and first used to study organizational structures (Star and Griesemer 1989). They can be tangible or intangible artifacts (Sullivan and Williams 2012; Benn and Martin 2010; Bresnen 2010; Carlile 2002) that can bridge understandings across sociological groups even though they may be utilized very differently by those groups. Subsequently, as a result of producing a common frame of reference, BOs are suggested to be capable of facilitating a shared understanding and the transfer of knowledge across multiple and diverse groups of people (Lee-Kelley and Blackman 2012; Bannon 2002). Accordingly, Star and Griesemer (1989, 393) posit “they are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites.”

Star and Griesemer (1989) categorized BOs into two types: “Syntactic” and “Semantic,” Syntactic BOs are capable of spanning the differences in language between social groups while ‘Semantic’ BOs can help bridge differences in meaning. Carlile (2002) expanded these also to include “Pragmatic” BOs that help traverse the differences in the practical use of artifacts by disparate social groups. Spee and Jarzabkowski (2009) indicate that knowledge transfer is significantly more challenging to achieve in pragmatic forms than it is in the use of semantic and syntactic BOs. Carlile (2002) supports this by suggesting new knowledge emerging from other social groups is difficult for individuals to give up or adapt to as a consequence of previous successes from “hard-won” knowledge in practice.

Bergman, Lyytinen, and Mark (2007, 55) state “any artefact that is shared between two or more actors at the boundary of two social worlds can be regarded as a boundary object.” However, not all artifacts are BOs, and without some shared meaning or sustained purpose, they remain merely objects or concepts (Spee and Jarzabkowski 2009; Sapsed and Salter 2004). BOs can comprise tangible everyday objects such as workplace documents, tools, heroic people, project timelines and

information systems, or intangible concepts such as relationships, ideas, social structures, notions, language and expressions (Carlile 2002; Yakura 2002; Fleischmann 2006; Bergman, Lyytinen, and Mark 2007; Fenton 2007; Harvey 2009; Oswick and Robertson 2009; Benn and Martin 2010; Bresnen 2010; Landry et al. 2010; Kajamaa 2011; Di Marco, Alin, and Taylor 2012; Lee-Kelley and Blackman 2012; Sullivan and Williams 2012; Chang, Hatcher, and Kim 2013; Huang and Huang 2013).

BOs were originally conceived of as devices that facilitate the collaboration or interaction between two or more different categories of actors: termed “anchors and bridges” (Star and Griesemer 1989). Oswick and Robertson (2009) challenged this and claimed that some BOs could inhibit relations, subsequently referring to them as “barricades and mazes,” Spee and Jarzabkowski (2009), drawing upon Levina and Vaast’s (2005) work, highlight that BOs can be deliberately manufactured to help overcome social boundaries, but also suggest that these BOs may not necessarily be utilized in practice. As Kajamaa (2011) points out, the mere presence of an influential BO may not be sufficient to dissolve social barriers. Indeed, the inherent complexity and possible ubiquity of a BO has the potential to hinder both its worth (Chang, Hatcher, and Kim 2013) and peoples’ ability to comprehend it (Fenton 2007). The ultimate utility of a BO is also a result of its being created by opposing societal groups and becoming “owned” by them (Lee-Kelley and Blackman 2012; Koskinen 2005). As such, this process is awash with power conflicts that also play a role in facilitating unity in their usage (Harrison et al. 2018; Koskinen 2005).

The theoretical usefulness of BOs is indicated by their study in a range of different contexts including social enterprise (Samuel et al. 2021), healthcare (Kajamaa 2011; Sullivan and Williams 2012; Nyella and Kimaro 2016), supply chains (Hong and Snell 2013), systems dynamics (Black 2013), conservation (Gray, Gruby, and Campbell 2014), bioinformatics (Greenhough 2006), project management (McGivern et al. 2018; Yakura 2002; Lee-Kelley and Blackman 2012; Di Marco, Alin, and Taylor 2012; Chang, Hatcher, and Kim 2013; Lehmann and Rousseau 2016), food supply chains (Harrison et al. 2018; Mutersbaugh and Martin 2012), information systems and technologies (Fleischmann 2006; Landry et al. 2010; Huang and Huang 2013; Corsaro 2018; Huvila 2016; Ciesielska and Petersen 2013), social media (Tim et al. 2017), geospatial information systems (Harvey and Chrisman 1998), innovation (Prado and Sapsed 2016; Marheineke, Habicht, and Moslein 2016; Scarborough, Panourgias, and Nandhakumar 2015; Black and Andersen 2012), green electricity labeling (Rohracher 2009), mining (Wallsten 2015), new product development (Carlile 2002; Bergman, Lyytinen, and Mark 2007), education (Benn and Martin 2010) and violence/quality of life (Kenny 2016).

While much of the BO literature examines the role of individual artifacts, much less explicitly examines the interplay of multiple BOs. For instance, Doolin and McLeod’s (2017) exploration of project-related BOs in information system development, and Marheineke, Habicht, and Moslein’s (2016) examination of the use of BOs in virtual innovation communities. Hummel, Berends, and Tuertscher (2024) make valuable headway in the

conceptual development and practical utilization of BOs in their illustration of how multiple BOs may form a framework, or “scaffolding” (p1) around which technical organizations collaborate. In this they identify how individual BOs are insufficient for collaboration and may even inhibit it, but collectively may perform an important enabling role.

Their utilization also has practical value, such as in the structuring of timeframes in public healthcare (McGivern et al. 2018) and in providing a focal point around which valuable idea-generation and knowledge acquisition may take place (Yakura 2002; Sullivan and Williams 2012). Adopting BOs as the objects of analysis can provide insight into the values that are placed upon the seemingly mundane items of everyday work and life (Sullivan and Williams 2012) and how individuals and social groups may coalesce or become fractured (Fenton 2007; Oswick and Robertson 2009; Kajamaa 2011).

In seeking to understand how FGR navigated the transition from “local football club” to “globally recognized leader in socio-environmental sustainability,” this study adopts BOs as the objects of analysis. In accord with extant literature (Keshet 2020; Poepsel 2020; Gorman 2019; Wobbe and Renard 2017; Jepsen 2016), we conceive football clubs, home fans, away fans, sponsors and the local community as distinct social categories that are facilitated by and interface with other social categories through boundary objects.

2 | Methodology

This research employs a single, multi-method qualitative case study design (Yin 2003). Using multiple methods, comprising participant observations, interviews, and focus groups enabled the triangulation of observations and interpretations (Eisenhardt 1989).

2.1 | Data Collection

The lead author negotiated access to the club after attending a “business breakfast morning” to discuss business sustainability and meeting the Chairwoman of FGR. Following this, he met with FGR’s Director, Community Development Team, and the Public Relations Officer to discuss the scope of the intended research project. Subsequent to gaining approval to conduct the research through their University’s Research Ethics Committee and FGR’s Board of Directors, the study commenced.

A multi-phase protocol was followed comprising attendance at football matches to observe the everyday experiences and perceptions of the club’s staff and supporters, semi-structured interviews with key internal and external stakeholders of FGR, focus groups with visiting fans, and participation in FGR-run events (detailed in Table 1). This real-time, deep immersion allowed the inductive construction of the complexities of “life at FGR” (Samuel and Peattie 2016).

Twenty-four semi-structured interviews were arranged with key management, players, and operational staff in order to gain an understanding of the club’s core mission and activities

TABLE 1 | Data Collection.

Data sets	Data collection	Location	Data collected
Home and away matches attended as an FGR supporter. Total = 30	2017–2018 Season: 8 home and 1 away match attended. 2018–2019 Season: 12 home and 1 away match attended. 2019–2020 Season: 7 home and 1 away match attended.	The New Lawn (Forest Green Rovers) The County Ground (Swindon Town) The Johnny Rocks Stadium (Cheltenham Town)	Reflective Journal freely written Pre and Post match. Accounting for 19,476 words of data.
Invitations to Events Total = 9	Meeting FGR Director, Community Development Team and Public Relations officer FGR Community Day FGR Sustainability Tour Chairman Matchday Invitation FGR v Southampton under 21 s, Head of Community Development/ Head of Academy Matchday Invitation FGR v Colchester Student visit for Sustainability Tour and Match Student visit for Sustainability Tour and Match Ex-Chairman keynote Presentation at the “Race for Sustainability” Conference in Cardiff University Ex-Chairman “Public Values Lecture” at Cardiff University Business	First Team managers office. The New Lawn, Forest Green Carol Embassy suite. The New Lawn, Forest Green The New Lawn Ground, Forest Green Directors Box The New Lawn Ground Forest Green The New Lawn Ground, Forest Green Cardiff University Business School	Reflective Journal freely written after each event. Accounting for 8376 words of data.
Interviews with FGR workforce Total = 24	Community Link Officer Community Ambassador × 2 First Team Player × 2 Professional Academy Football Player × 2 Assistant Ground Person × 2 Match Day Volunteer Catering Staff Front of House Board Member × 2 Ex Director × 2 First Team Academy Coach Head of Community Development Head Grounds Person Security Staff Chairman Head of Academy First Team Physiotherapist Ex-Chairman First Team Captain	The New Lawn Ground (Forest Green Rovers)	Semi-structured interviews lasting on average 54 min per interview generating 51,318 words of transcribed data.
Interviews with FGR Supporters Total = 20	13 Male and 7 Female Supports	The New Lawn Ground (Forest Green Rovers)	Semi-structured interviews lasting on average 17 min per person generating 13,506 words of transcribed data. Note: These were briefer and less formal interviews than with the FGR workforce given the limited opportunity and time available to. Thus each interview lasted around

(Continues)

TABLE 1 | (Continued)

Data sets	Data collection	Location	Data collected
Interviews with FGR's Local Community Number Total = 17	Church Representative Forest Green Community Centre Community Development Project Manager Youth Worker Local resident × 3 Further Education College Lecturer School Teacher Librarian Tourist Information Centre Manager Librarian Shop Keeper Shop Worker Hotel Worker Sports Journalist	Forest Green Community Centre Nailsworth Library The New Lawn Ground (Forest Green Rovers)	Semi-structured interviews lasting on average around 18 min per person generating 12,065 words of transcribed data. Note: These were briefer and less formal interviews than with the FGR workforce given the variability of interest and investment from participant to participant.
Focus Groups with UK Football Fans Total = 2	Focus Group 1: 6 Participants (4 male/2 Female) Focus Group 2: 5 Participants (3 male 2 Female)	The New Lawn, Forest Green Carol Embassy suite. The Egyptian Mill Hotel, Nailsworth	Lasting ~37 min generating 1861 transcribed words of data. Lasting approximately 43 min generating 2158 transcribed words of data.
Focus Group with International Football Fans Total = 1	Focus Group 3: 5 Participants (4 male 1 Female)	Cardiff University Business School	Lasting ~64 min generating 3216 transcribed words of data.

(Peattie and Samuel 2018). Thirty-seven informal interviews were also conducted “in the moment” throughout the period of engagement with the organization in order to explore opportune moments with visiting fans and local stakeholders (Carpiano 2009; Kusenbach 2003; Blumer 1969). In total, 32.5h of interviews were captured, which generated transcripts comprising 76,889 words.

Three semi-structured focus groups were conducted, with UK and international fans, to garner a wider interpretation of the activities of FGR and triangulate our interpretations and findings (Evans 2011). This generated a further 2.4h of recordings and comprised ~7235 transcribed words. The lead author's field notes were also transcribed and contributed a further 27,852 words of data.

For the purpose of documenting the identity of the research participants, the context in which they were interviewed, and a breakdown of the data collected this has been recorded in Table 1.

2.2 | Data Analysis

The analyses took place cyclically, following each data-gathering event, and were used to develop further lines of inquiry (Halcomb and Davidson 2006). The initial interpretation of the data sets was guided by the Boundary Object literature and sought to identify those artifacts that featured most prominently

in the transcripts. Following this, the data were coded in order to understand how those artifacts were understood to operate as bridges or barriers to FGR's social, ecological, and sporting initiatives. Throughout the process, the interpretation of the data was continuously reviewed through discussion between the researchers, and with the fieldwork participants. Finally, the codes were cross-compared between data sets to identify the types of Boundary Objects that were syntactic (enabling a shared language), semantic (enabling a shared meaning) or pragmatic (enabling a shared practice) and thereby initiate thematic development (Table 2).

3 | Findings and Discussion

This study indicates that FGR's recent “hard core” commitment to holistically embracing the principles and practices of sustainability has unquestionably transformed its existing landscape and the previous socio-spatial interactions that occurred within football:

It's run differently with sustainability and being eco-friendly. When I think of Forest Green Rovers that's the biggest thing I think about. (FGR Employee)

This study unearths empirical evidence that indicates how FGR have developed and enacted a series of syntactic, semantic, and pragmatic BOs to bridge sustainability and climate change understandings and transferred knowledge across a

TABLE 2 | Data analysis.

	Investigator A	Investigator B	Investigator C	Initial themes	Final themes
Giveaway shirts to kids	x	x	x	Free samples	Ambitions
Giveaway samples of vegan food	x		x		
Community pride	x		x	Community	
Small town	x				
Closer together		x	x		
Outreach programs	x	x	x		
Commercial ambition	x		x	Ambitions	
Attractive football	x	x			
Sporting ambition		x	x		
Social ambition	x	x	x		
Kids and family	x	x	x	Match day experience	
Diverse fans			x		
Non-traditional	x	x	x		
Car charging points	x	x	x	Environment	Environmental initiatives
Electric cars	x	x	x		
Solar panels	x	x	x		
Water butt	x	x	x		
Recycling	x	x	x		
Intelligent mower	x	x			
Clean energy	x	x	x		
Meadow			x		
Food and more food	x	x	x	Vegan food	
Vegan food specifically		x	x		
Local and vegan beer	x		x		
You can't argue with the vision	x	x	x	Dale Vince	Dale Vince
Dale Vince	x	x	x		
Personal social philosophy		x			
Long-term plans	x	x			
Information boards	x	x	x	Education	Sharing
Eco-trail	x	x	x		
Groundsman knowledge	x		x	Knowledge	
Innovative playing surface	x	x	x		
Innovative player's kit	x	x	x		
Sponsorship—local	x	x	x	Sponsorship	Sponsorship
Sponsorship—vegan	x		x		
Sponsorship—activist groups	x		x		

diverse set of stakeholders (Lee-Kelley and Blackman 2012; Bannon 2002). These syntactic, semantic, and pragmatic BOs are discussed below through five themes that comprise ambitions, environmental initiatives, Dale Vince, sharing, and sponsorship.

4 | Ambitions

FGR's ambitions to dramatically reduce its social and environmental impact are widely respected among its fans, residents, and global institutions. The range of actions that have been deployed to achieve this have unquestionably disrupted primary and historic understandings of the purpose of any football club, that is, to play and win football matches:

Forest Green Rovers is changing the face of sports sustainability. What this club and Dale are doing is probably bigger than the football club. (FGR Staff)

The data indicate that the on-pitch activity and an ambition to win football matches is the first and foremost thing that FGR must get right. Therefore, a key pragmatic BO is the necessity for the club to play attractive winning football. Likewise playing unattractive football leading to poor results would present itself as a barrier BO that could devalue the social and environmental success of the club:

As a football club the most important thing is to play football isn't it? (FGR Staff)

The club's promotion to League Division one in 2022 has undoubtedly aided in affirming its new direction, and one may speculate how further successes will cement the various social and environmental initiatives. However, should its sporting success not match the acclaim that it receives for its off-pitch endeavors, this would be the litmus test that would confirm the perdurability of any changes that had been brought about from its stakeholders respecting and embracing its novel practices:

We do send out a global message about being ethical, but for me it's still the football. (FGR Supporter)

A substantial proportion of the data emphasizes FGR's ambitions to develop and maintain local community links. FGR's links with local schools and its proactive community engagement appear to help maintain its ambitions to be a "friendly respectful club" (Barnard 2014). In a sport recognized for its machismo and a host of unsocial behaviors among certain factions of its supporters, many were keen to express their observations of an entirely different experience at FGR. They described it as respectful, family-friendly, and suitable for children and parents to enjoy all the experiences involved in watching football:

We are also very strong on our family values. We have a sense of kindness about how we approach things. (FGR Management)

The club's commitment to creating a safe environment is reflected in its "young ambassadors" program and its capacity to bring local children's voices and activities into the club. There was a strong sense of pride and value in the program and recognition of the club's values. Respect for children was exhibited in its dedicated spaces in match day programs and the club's official website to "ambassador blogs" and other forms of communication. At the start of every season the club gifts five hundred football kits to local children and gives children free entry to games. This, along with the strong links that have been developed with local schools through players and staff visits, sustainability education days and vegan cooking sessions, were all recognized as positive strides to developing the "family values" and friendly environment:

It is very family orientated. (FGR Supporter)

The people all look out for you. They are not just in it for themselves. (FGR Academy Player).

A substantial proportion of the data emphasizes FGR's attempts to develop community links and, despite residents' complaints about traffic and parking congestion on match day, the club's commitment to the local economy and stance on social, economic, and ecological sustainability is mostly positive. This was often communicated in the data through a sense of "doing the right thing" by pushing the boundaries of sustainability in an arena that many see as riddled with multiple layers of hostility.

Thus, FGR's proactive community engagement appear to bare the hallmarks of both a semantic and pragmatic BO that has assisted in developed a social foundation of a "friendly respectful club" where several wicked problems and grand challenges can be questioned, communicated and addressed while also enabling practices to be shared:

By having groups come and enjoy the community stand, they'll enjoy the food, see all the charge points, they might become intrigued, so even those little touch points have quite a big impact. (FGR Employee)

However, despite the number of positives associated with these practices and belief systems a word of caution was still present in the data. For example, some said that these changes have led to a less vociferous atmosphere at games compared to other football grounds in the same league. This has led to the club's friendly and welcoming stance being considered as possibly a barrier pragmatic BO as it fails to create the atmosphere that is considered necessary in order to give teams "home advantage" in a very competitive sport:

Funnily enough the manager complains...normally when you go to a football match there's a hell of a racket going on behind the goal and there's a lot of perhaps loose language and all that sort of thing. We're a bit too namby-pamby and too many kids there. (FGR Supporter)

5 | Environmental Initiatives

FGR's unique stance to choice edit food consumption to an exclusive vegan menu has proved to be the most talked about, controversial, and possibly successful environmental initiative that the Football club has implemented:

The good thing with this club is that everything around the club and the stadium is vegan but it gives you the choice it's not like strict rules and boundaries. (FGR Team Captain)

The ways in which FGR has enacted policies and procedures to adopt and promote this form of food consumption was the most significant subject to emerge from the data:

There seems to be a growing awareness about veganism but I think our awareness of that has been enhanced by the fact that we see it every week here. (FGR Supporter)

When you told me it was vegan only food I was a bit concerned that I wouldn't like it, but I tried their veggie pie and it was fantastic. I would have no fears in the future to try this food. (Casual Visitor)

Recognition was attributed to the food and drink that was available, both to buy and to sample, for example, a free Vegan-based bag of food samples and advise was distributed at the Morecambe game on October 28, 2017.

The club environment provides the opportunity to sample different vegan brands, while being aided by the removal of "typical" food and drink options, such as cows' milk, meat-based food, and big brands such as Coca-Cola and Cadbury from any food outlets. Thus, trying new and different food and drink such as "soya milk in my tea," demonstrates how a visit to FGR can result in a new consumption experience that could also arguably also act as a vehicle for consumer learning. As such, the findings point to the creation of a "safe place" where people can experiment and try different types of vegan food:

Today, at a football match of all places, I tried a vegan pie, soya milk, vegan chocolate and drank ethical coffee while chatting to people about sustainability. (Field Notes)

The vegan philosophy has been received as an affirmative act that FGR stakeholders are keen to indulge in, support and share. There is also significant evidence to suggest that it has acted as a gateway to changing attitudes to this "type of food." Subsequently, many of FGR's stakeholders recognized their "food consumption" while at the club has operated as a tipping point into reducing meat consumption. Many are now following full or part-time vegan diets both as individuals and as a family unit in their home life:

I'm not a converted vegan or anything, but definitely eat less meat you know and probably shop a bit more ethically as well. (Local Journalist)

I eat a lot less meat than I use to, being at the stadium and at the training ground it has just gradually progressed coming into my home life. (FGR Team Player)

The message that a vegan diet is "good for the environment" also appears to be gaining traction across FGR's stakeholders, indicating the availability and championing of this food at FGR is operating as a semantic and pragmatic BO. The data indicated that many now understand the link between their "diet" and climate change and, for some, it is influencing their consumption habits:

I'm not a vegan or agree with all this stuff, but I buy into all the stuff about the greenness, I think that's great, I think it's fantastic. (FGR Supporter)

FGR's vegan stance, spearheaded by Dale Vince, emerges from the data as a dominant symbol of their commitment to sustainability. Importantly, it indicates how something as personal as food can be a semantic BO that plays a significant role in bridging sustainability and climate change understandings across a diverse set of stakeholders.

However, despite the overwhelmingly positive influence, reactions to the vegan/ethical food and drink may also be adverse. Some participants felt that the club's stance on this was a "step too far" and were resentful that it was becoming "more important than the football." Consequently, many had no intention of changing their diet and actively subverted this by "eating elsewhere." Therefore, for a limited few, vegan food at FGR acts as a barrier pragmatic BO:

I don't touch it myself. I never have. I'm still a meat man. Yeah the only vegan days that we have are here. (FGR Supporter)

While the "vegan only food" appears to function as a critical tipping point of influencing new social practices, it also appears to play a role in the club's and some other stakeholders' identity construction. Externally, FGR fans are often referred to as "vegans" and "tree-huggers," which is a label that many are willing to accept and even embrace. This moniker provided a soundbite that projects the club's uniqueness and is argued to have "helped put our small club firmly on the map" and legitimize their actions to the wider world of visiting football clubs and their fans:

I think often it attracts a lot of criticism and cynicism from fans in other clubs but they're talking about us. I don't mind being a bit different. We're always on the news and people turning up to try the food and stuff like that. Famous people! Vegans from all over the country come here. (FGR Supporter)

Additionally, vegan food at FGR is a pragmatic bridging BO between FGR and other football clubs. Several clubs have been known to change their food offerings at their grounds on match day. This is a surprising and significant change, furthering the social practice of veganism to other football clubs and their wider stakeholder community:

When we got into league two our very first away game was at Mansfield and they put on this huge vegan spread and they started to get repeated wherever we went. (FGR Management)

6 | Dale Vince

The lifestyle choices and commitment FGR's Chairman has shown is his personal life toward living/championing and “developing opportunities for people to live more sustainably” emerges as an important theme in the data. Dale Vince emerges from the data analysis as synonymous with “green values,” “veganism,” and “sustainability” and with a “strong personal conviction to save the world” and can be considered as a syntactic and semantic BO: syntactic for his role in developing a mechanism to communicate sustainability to a new audience and semantic for bridging new meanings and practices around the possibilities of introducing sustainability practices to the world of professional football:

I suppose that's all in tune with his beliefs he's very principled. I suppose he's a bit militant about his own values and good luck to him as well. I mean obviously having Dale Vince is a different type of owner that is much more hands on than a lot of clubs. So that does have positive effects and negative effects. A lot of people don't like him because he comes across as preachy, but he's preaching about something good so I don't care. (FGR Supporter)

This has resulted in many indicating that FGR has been built as a “personification” of Dale Vince, without whom the reimagined FGR would never have been conceived and nurtured. His commitment to developing the club into “the world's greenest football team” is well respected and admired by most, with many commenting with a sense of pride on the value of the message the club is sending out to the world of football, sport and business:

Not everybody has sort of bought in to his vegan values but it's got to be better than having one of these Chairmen that's get rich quick. He's got a long term plan here. (FGR Supporter);

Without Dale it wouldn't be where it is now would it? (Local Journalist)

7 | Sharing

At FGR, interpretation boards communicate the benefits of both organizations and individuals embracing sustainable behaviors. It is novel for football fans to be exposed to interpretation boards that do more than document a club's history and past players. It is hard to escape the main interpretation board on view at the entrance to FGR's ground. This proudly invites visitors to take the FGR “eco trail” and uncover 10 points of interest in around the ground that explain FGR's commitment to sustainability. The

novelty of such an approach can be observed on match day as people can often be observed stopping to read FGR's sustainability commitments. The observations made during the fieldwork, and the research participants' stated views, indicate that the initial impact of seeing FGR's multiple commitments to sustainability helps ease skeptical worries of FGR possibly “over-egging their commitment” and engaging in the well-known process of greenwashing. Positive comments were expressed for FGR's “holistic” approach to sustainability and “the extent the club has taken it.”

The eco trail's interpretation boards are subsequently recognized for their ability to function as a syntactic BO. Syntactic because they contextualize the complexities of sustainability to FGR's football practices and one's personal consumption habits and help span the difference in language between climate change experts and football supporters.

The unique “organic and vegan” approach to managing and maintaining FGR's playing surface emerges from the data as a constant source of pride, complex intrigue and a means to share sustainability expertise:

Trying to have a healthier pitch...they're real trailblazers. (Local Journalist)

Recognition for this key “complex” operational practice has moved beyond stakeholder group understanding/reaction and empathy, to become a positive symbol of sustainable disruption and entrepreneurship that a variety of stakeholders in the sporting world have been keen to learn from. FGR's desire to share their sustainability knowledge and expertise has resulted in them also hosting the leaders of several world-renowned sporting institutions that are seeking to implement or advance their playing surface. For example, Wembley, Wimbledon Tennis Club, Real Betis Football Club, and Aston Villa have all been educated by the club's groundsman on FGR's vegan playing surface:

A lot of clubs talk to us about how we manage our pitch. Our groundsman in particular talks to a lot of other groundsmen about what he is doing. (FGR Management)

FGR's staff and other physical resources such as its vegan playing surface are also functioning BOs. For example, in the case of the groundsman he is operating as a semantic BO who bridges the difference in meaning with regards to what a playing surface can become. While the playing surface is functioning as a pragmatic BO that demonstrates the possibilities of a vegan/organic playing surface to different football clubs and other sporting institutions.

8 | Sponsorship

FGR's social and environmental ambitions have also shaped its commercial relationships. The data reveal several significant points relating to FGR's governance of sponsorship and product availability while at the club. Sponsorship from products and services that are either local or related to sustainability are recognized to dominate FGR's landscape:

We are very picky about our sponsorship and if we can green them up a little bit more imagine what they are going to be like in ten years. (FGR Management)

This “sponsorship code of conduct” is recognized by many stakeholders as an authentic demonstration of FGR’s commitment to sustainability. Sponsorship brands that are visible and available to try, for example, Quorn and Oat Ly (both available from the food stall) and Faith in Nature (hand wash in the toilets), are noticed and commented upon. Thus, sponsorship and product placement/availability at FGR operates as a pragmatic BO introducing their stakeholders to different forms of social and sustainable consumption. There is a suggestion in the data that by “having no real choice other than these products” some stakeholders have felt forced to try certain ethical/sustainable brands for the first time. However, they have gradually enjoyed them to the point that they have since introduced them into their “family and our shopping.” These options, like vegan food, are showcased by FGR and are tried by their stakeholders in “a safe place”:

We’ve learnt that there’s such a thing as corn vegan chunks. So, we have gone out and looked for them. (FGR Supporter)

Worthy of special note is the attention that was given to the clean energy company Ecotricity, founded by Dale Vince. It is FGR’s main sponsor, and the club’s holding company. The prevalence of Ecotricity symbols at FGR for some was a little distasteful and a reminder of the “crass commercialization of the game.” However, following exposure to the Ecotricity brand many visitors engaged in post-match research into the company’s consumer proposition, with views to transfer from traditional mainstream energy companies to the “greener and cleaner Ecotricity.” Many saw the adverts as a reminder that clean domestic energy is now “easily available” and “worth consideration if the price was right.” Some expressed their sense of pride by living a more sustainable lifestyle through switching their energy consumption to a “*local green company*” that is both a vital part of the region and FGR’s infrastructure:

Well we’re now signed up with Ecotricity. (FGR Supporter)

In summary, the novelty of seeing “different brands and products that are good for the environment,” along with those that are potentially controversial, does not go unnoticed and has resulted in several interesting outcomes. First, there is unquestionably synergistic value of brand alignment in operation at FGR. Second, “testable” brands have gained the benefit of being available to try in a “safe” place, and there is a recognition that for some this has spilled over into personal consumption. Third, Ecotricity as the primary sponsor, is overwhelmingly viewed with a sense of pride and social/ecological relevance and is suggested to be a “seamless” relationship that has tipped many into either enquiring or becoming Ecotricity customers. Arguably, while these sponsors are identified as a positive, it could also be viewed as nothing more than a basic brand alignment strategy where both FGR

and the sponsor work symbiotically to “authentically” project both the organizations and the brand’s sustainability credentials, thereby resulting in the realization of positive environmental and commercial ambitions for both.

9 | Conclusion

This study explored the novel changes that have been made within a lower-league UK football club in order to effect positive social and environmental change both within and beyond the sport. In doing so it sought to understand “how have these transitions been navigated?” Drawing upon Boundary Object theory it examines those pragmatic, syntactic, and semantic objects that have bridged the boundaries between stakeholder groups and thereby enabled the efficacious implementation of a variety of initiatives.

Those Boundary Objects comprised “attractive football” (pragmatic/semantic), “proactive community engagement” (pragmatic/semantic), “vegan food” (pragmatic/semantic), Dale Vince (pragmatic/syntactic), “eco trail information boards” (syntactic), “groundsman” (semantic), “playing surface” (pragmatic) and “sponsorship” (pragmatic). While all of these served as “bridging” Boundary Objects between stakeholders, it is notable that some were also observed to be “barriers” in some limited circumstances. For instance, the “family friendly” atmosphere that had been developed as part of the club’s efforts to introduce new fans to football and its environmental initiatives, was also perceived to be a potential “barrier” to the on-pitch performance of the club’s team. Most importantly, the club’s ability to play “attractive football” was observed to be the greatest potential “barrier” to the success of its other initiatives. While the club had enjoyed recent success in being promoted to English Football League Division Two, failure to maintain the club’s football success could lead to fans’ disenchantment with the club’s social and environmental pursuits. This could have concomitant detrimental effects on the size of the fanbase, and therefore ticket and merchandize sales, as well as loss of exposure and revenue for sponsoring organizations, and a reduction or even cessation of its laudable social and environmental initiatives.

While this study is somewhat limited by its examination of an outlying football club, the findings appear pertinent beyond the confines of the sport of football. Many, if not all, organizations are engaged in some form of improving their social and environmental impact, whether they are driven by legislation or altruistic motives. Significantly, our study makes both empirical and theoretical contributions to the field of BO. Empirically it demonstrates that the plasticity of BOs can overcome Carlile (2002) concerns of new knowledge emerging from other social groups being difficult for individuals to give up or adapt to because of previous successes from “hard-won” knowledge-in-practice. Proving that even in the most hostile of places where entrenched/historic beliefs and behaviors often contradict those desired by organizations and individuals seeking to advance their social and environmental credentials (in this case a professional English football club) BOs can have profound agency.

Theoretically, the majority of BO literature tends to explore singular boundary objects and comparatively little explores

the roles and interconnectedness of multiple BOs. This is a weakness since social systems do not always readily lend themselves to accurate study through the observation of isolated phenomena or the assumption of simplistic relationships between agents or objects. This study reveals the importance of understanding the complexity of such systems where change is brought about, and indeed relies upon, the operation of multiple BOs. In this, it reflects Hummel, Berends, and Tuertscher's (2024) observations of the "scaffolding" effect of multiple BOs, whereby the interrelationships between multiple BOs, including those that may be barriers in isolation, combine to form an enabling framework.

In this case, the study of "the vegan food philosophy" in isolation would have undoubtedly identified its foundational importance in the transformation of FGR. However, the coetaneous study of "the matchday atmosphere" had highlighted that the efficacy of the vegan food proposition, while having an immediate effect upon people's choices both within and beyond the stadium, may have a limited lifespan should "the matchday atmosphere" result in poor performances on the pitch. Despite this, the BOs that were identified are found to have comprised an important arrangement of actions that were both individually achievable for FGR and acceptable to individual stakeholders, and which, as a whole, served to reinforce the authenticity and impact of the owner's initiative to effect positive social and environmental change. It remains to be seen whether the owner's vision remains one that the club's fans can remain committed to in the long term should on-pitch performance degrade. In the environment of competitive football it is entirely possible that, at least in the eyes of the fans, the social and environmental initiative may become a framework of barrier BOs that inhibit, or do not promote, the higher goal of achieving sporting success.

The paper's examination of the operation of BOs to bridge different stakeholder groups in the pursuit of improved social and environmental performance indicates the importance of the primary organizational purpose (in the context of this paper, winning football matches). This we present as the foundational BO upon which all others rest and which we posit if declines, becomes diluted, or deprecated, can undermine the efficacy of all other BOs. Consequently, organizations may take advantage of the uniting power of BOs and their pragmatic, syntactic, and semantic functions, but they must be mindful of the dangers that are imposed by subverting or occluding the foundational BO that is its own fundamental purpose.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Research data are not shared.

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