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Published as 'Windsurfing: An Extreme form of material and embodied interaction?' in Anthropology Today (2007) Special Issue on hazardous sport, Vol. 23 (6): 8-12.

Please quote and cite from the published version

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Sailing a Board: An Extreme Form of Material and Embodied Interaction?

Abstract

This paper makes reference to the development of water based board sports in the world of adventure or action games. With a specific focus on windsurfing, we use Parlebas (1999) and Warnier's (2001) theoretical interests in the praxaeology of physical learning as well as Mauss' (1935) work on techniques of the body. We also consider the implications of Csikzentimihalyi's notion of flow (1975). We argue that windsurfing equipment should not merely be seen as protection but rather as status objects through which extreme lifestyles are embodied and embodying.

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Watching novices trying to sail a windsurfer can be funny. It looks as if it is impossible – just when they think they've got it, there's a loud splash and a muffled curse or two as the sailor falls into the water, closely followed by the mast and sail. After remounting the board, the sailor stands hesitantly and laboriously, dragging the sail into an upright position before again trying to make progress forwards. They often topple over several times before anything like 'sailing' happens. There is of course the opposite experience of seeing a sailboard - or windsurfer as it is more usually termed - hurtling along, bouncing over waves like a powerboat, turning with what seems to be an effortless swoop completed with a neat flip of the sail. And then off again, tearing along, the wind and water completely harnessed by the small figure hanging off at one side.

But is any of this extreme? Windsurfing is not an extreme sport in terms of danger; very few people die windsurfing and even serious injuries are infrequent. It is true that in wave sailing, where jumping or somersaulting above the water can result in the board and rig falling on top of the sailor, there are injuries and some sailors wear helmets. But whether sailing for fun or in competition, there is little risk of serious injury, even through falling off at high speed. Sailboarders have been killed in collisions but compared to any sort of aerial or motor sport it is relatively safe. The things that make windsurfing extreme are the same things that make it fascinating to watch and participate in, that is, the complexity of the dynamic relationship between the sailor's body, the kit of sail and board, the water and the wind. In this paper we explore two dimensions of the extreme distinctiveness of windsurfing. In the first section we explore some of the phenomenological characteristics of its extremeness and in the second we consider how the embodied nature of the sport contributes to the sub-cultural capital that makes it a distinctive sporting practice in late modern societies.

Physical Capital

Bourdieu suggests that sailing is one of those sports in which 'gains in distinction' can be achieved (1978: 828) and in which all the features that appeal to the dominant classes are involved (exclusive setting, available at any time, alone or with chosen partners, ritualised competitions, relatively low physical exertion, relatively high investment of learning, but low demands on physical capital so little affected by the life-course, etc. 1994: 215-7). Perhaps

appropriate to yacht racing, this approach does not work for windsurfing – and indeed it would not work for most types of dinghy sailing either.¹

The physical capital required for windsurfing falls into two separable forms; the material capital of the kit or equipment and the embodied capital of the sailor. The material capital of the kit is available in exchange for economic capital – money. This is still significant enough to exclude those without a reasonable wage but is small enough not to mark out class fractions; the cost of adequate equipment would be less than a small ten-year-old car. But the material capital is of little use without the embodied capital of the sailor that must be accumulated within their body. In contrast to yachting, where an owner could hire crewmembers for strength and skill (this still happens in offshore racing), the sailboarder does it all her or himself. While changes in technology have reduced the economic capital required for boardsailing compared to sailing yachts, the physical capital required has increased. Sailing racing dinghies, a sort of intermediate stage between sailing as yachting and sailing as board-sailing, required ‘sitting-out’ by the crew to balance the wind on the rig and aids such as the sliding seat and trapeze were developed to take the best advantage of their weight. The increase in agility and skill required was rewarded by increased speed as the lightweight dinghies could, in the right conditions, plane over the water like a speedboat. Windsurfing ratcheted up this shift in the physical capital required to participate in sailing as the boards were designed to be usually sailed on the plane and to always integrate the crew’s body as part of the rig. It also increased the vertiginous pleasure and excitement to be had from the sailing (Dant 1998).

Material Capital

Dinghy sailing can be seen as a democratisation of yachting during the middle of the 20th century. The technology of modern materials (plywood, fibreglass, aluminium, terylene) enabled small sailing craft to be built, sailed, maintained and raced competitively for much less cost than yachts. If sailing dinghies democratised sailing during the first two thirds of the 20th century – the boom period would be after the second world war – windsurfing utilised a further shift in technology to further disconnect sailing as a sport from institutions (clubs, organisations) and further reduce the economic capital required. The technology of new artificial materials increased the strength and weight of the boards, sails, mast and booms so that the production

¹ Bourdieu was of course writing at a time when windsurfing was a new and marginal sport.

techniques could be ever more precise in making the components responsive and adaptable. Modern sailboards are light but inflexible whereas modern rigs hold a foil shape that is aerodynamically efficient while able to flex in response to increases in wind pressure. The sailboard and its rig can easily be put on top of a small car and launched from a beach rather than in the exclusive surroundings of a private club (windsurfers often change in the back of a car and rig up in the car park). The further development of kite boarding, which uses a kite rather than sail for propulsion, means that everything can be put in boot of the car, or even trailed behind a bicycle (Fig. 1).

What we see in windsurfing is a hybrid activity in which actions and equipment from other sports (particularly dinghy sailing and wave surfing) are modified and brought together. Skateboarding, snowboarding and kite-surfing are other sports that have appropriated the board-skimming-over-a-surface mode originating in surfing, where the board is steered by the rider leaning their body into the turn. Windsurfing itself encompasses a range of forms of the activity based on different craft and ways of sailing them. Inland lake sailors, use longboards designed to be sailed in all wind strengths, whereas coastal sailors use smaller 'sinkers' intended for use in open seas and high winds. The material capital of the individual windsurfer is often accumulated in a collection of kit that includes at least one board – often two or more – and two or three sails and masts that can be rigged up to suit the particular conditions. The windsurfer's kit also includes different fins, mast bases and extensions, wetsuits, harnesses and so on. Equipment that is used often wears out. But new 'better' versions of all bits of kit come on to the market continually and are visible in the material capital of other sailors.

Material capital is not only appropriated through the acquisition of kit. Like the yacht and dinghy sailor, the windsurfer dominates a certain space through their activity; as they sail over the water they are claiming it as theirs. Windsurfing usually happens on the open sea or on lakes and reservoirs where their rights to sail have to be managed with those of other users. Some beaches will demarcate areas for windsurfing and mark channels for launching to keep the sailors separate from swimmers. In general though, these divisions of publicly available space between different activities are far less fractious and contentious than have been documented in other lifestyle sports, such as that between skateboarders and pedestrians in the city or surfers aggressive exclusion of other water users. There are, however, contests for space on the water between sailors. In formal competitions these are managed by rules that assign rights of way that can be contested through institutional structures. Nonetheless competition for free wind and

water can be quite aggressive. In freeriding or leisure sailing, popular stretches of water can become quite crowded and if there are no designated areas then jet skis, sailboards, kite-surfers, yachts, speedboats and water-skiers may all compete for space with little general agreement of rights of way and no authorities to appeal to. Furthermore, particular beaches or wave breaks have meanings as sub-cultural spaces and can be guarded by their users. In Hawaii the epi-centre of wave windsurfing, popular wave breaks are claimed and policed by groups of surfers, windsurfers and kite-surfers, sometimes overtly as in cases of surfers territorialism or 'localism,' and sometimes more subtly in the exclusion of female and less physically able participants via a culture of meritocracy (Wheaton, 2002). The micro-politics of sub-cultural space with its competing statuses (gender – both between and within each gender, ethnicity, national identity and other insider/outsider categories) overlays and modifies the materiality of space.

Embodied Capital

Within Bourdieu's analysis of class distinction, it is through the habitus that classes reproduce their taste dispositions. Practices such as yachting and other sports or hobbies are passed on through participating with family and peer group members of the same class. But windsurfing requires an intensive approach to learning which is more likely to involve formal teaching in the early stages. Because there is only one person on the board, the novice has to learn solo; there is no opportunity to start off as crew or just going for a sail with someone else. The sport requires a degree of strength and agility that does mean that age and gender affects those who can or might wish to sail a board. Hence, the physical capital required is high and is affected by changes over the life-course. But more important than strength is the acquisition of an embodied sense of how to respond to minute changes in the conditions created by wind and water. There is no substitute for a fairly flat learning curve in which practice trains the body to respond in ways that are not directly connected with other prior experiences. Suggestions and hints from other sailors, including advice in books and magazines, watching other sailors, including on video recordings, can assist in the bodily acquisition of the sensory-motor skills that are distinctive to windsurfing. Acquiring the bodily skill is also an induction into a community or sub-culture of those who share the skill; the sub-culture, which may have other features, will take the embodied ability as a key feature common to its members.

There are formalised competitions in windsurfing – it is an Olympic sport. There are clubs that race, a professional ‘circuit’ and even ‘indoor’ windsurfing competitions, a made-for-TV media spectacle. But most windsurfers sail without ever engaging in them, preferring to ‘freeride’, that is to take pleasure in ‘intrinsic’ factors such as challenging the self or the environment. Even among elite participants, attitudes to formal ‘man-on-man’ [sic] competitions remain ambivalent. This does not mean that the sport is solitary or uncompetitive; sailors gather on suitable beaches and will compete informally amongst themselves and make judgements about each others’ competence and skill that are central forms of sub-cultural capital and status. Because windsurfers need sufficient wind, and in most settings the direction of the wind is important too, it is not a sport available ‘at any time’ but one in which those keen to participate will sacrifice other activities – including paid work – to participate in. Attitudes to comparison between sailors, to the place of the sport in one’s life and to the acquisition of skill are all part of the embodied capital that makes windsurfing extreme.

Material Interaction

Getting the sailboard to move requires a fine interaction between the sailor’s body and the kit; there is a complex ‘material interaction’ between the material capital that is in the objects of the kit and the embodied capital that is in the body of the sailor. The two hands, the two feet, and the hips or torso all need to make fine adjustments that alter the relationship between the rig and the board that are the principle components of the sailboard. Many interactions between humans and complex objects demand a range of simultaneous adjustments. Driving a car, for example, requires that the two feet work independently and although while on the steering wheel, the hands work together, with a gearshift, the hands need to work independently (Dant 2004). Of course the car driver’s torso is supported by their seat whereas the sailboarder’s torso is very much part of the balancing of the rig against the force of the wind; a harness around hips or chest is hooked onto loops on the boom. The windsurfer, unlike the cyclist or even the yachtsman, has no handlebars, tiller or rudder with which to steer. Steering is achieved, more like a downhill skier, by leaning the board in relation to the surface it is travelling over, a type of motion developed from the wave surfer whose board skimming down the face surface of the wave provides the model (and sometimes the motive force) for the windsurfer. Even so, although the windsurfer will make some turning movements, particularly the ‘carve’ into a gybe,

by leaning the body with the board into the turn, much of the steering of the board is done by more finely adjusting the angle of the board, including its tiny fin or 'skeg', to the water. This is done through the feet – even just the toes – that push, pull and tip the board while the sailor hangs to windward from the rig. Balancing the pressure of the wind on the sailboard's rig is similar to dinghy sailing but steering by leaning the craft is alien to other types of sailing.²

What is common to all of these sports that involve a body interacting with an object to achieve movement in space, is the sensation of speed and control. But unlike, say, formula one racing where there are mechanical controls, the control of the sailboard is wholly achieved by fine-tuning the orientation of the body to the object. At speed, this ability to achieve control must become as if it was intuitive; it must happen without conscious thought so that the equipment becomes like a prosthetic extension of the sailor's body. The sailor must perceive and respond to the environment of wind and water through the equipment of board and sail. Touch and proprioception must work through the various bits of equipment rather than on them to achieve what Merleau-Ponty calls 'intentional threads' linking them the sailor (he refers to the tailor, his scissors, needle and thread to make the point – 1962: 106). This mode of haptic perception is tied in with what he calls an 'intentional arc' that links the objects through the motor capacity of the body to express her or his intentions.

What is extreme in windsurfing is the extent to which this intentional arc is complete and cannot be separated out into component parts or even component actions that might be understood and learnt separately. Whereas the driver of the car can see 'steering' as an action of the hands and 'braking' as an action of the feet that are oriented to distinct and specific controls, the windsurfer is engaged in balance, steering, accelerating/braking, through their whole body, all the time that sailing is taking place. Now, this is true of running; the whole body is continually involved in balance, steering, breaking/accelerating even if there is most emphasis on the legs as the motive force. But in windsurfing the motor force is external to the body, as are the forces through which balance and steering are to be achieved (the sail and the board). What is more, the acquisition of the motor and sensory skills necessary to achieve sailing on a board, are neither straightforwardly intuitive nor part of the normal upbringing of children. Running or ball-throwing is learnt as part of growing up - albeit it often in specifically gendered ways (Young

² Below planning speeds, steering of a sailboard is achieved by leaning the rig back or forwards and in a similar way a dinghy or yacht can just about be steered using the balance between the two sails if the rudder is broken.

2005). But sports that involve manoeuvring a piece of equipment like a sailboard have to be consciously and intentionally learnt.

What we wish to argue is that some forms of sport – and windsurfing is an extreme example – require an embodied learning that is not simply dependent on the habitus through which it might be picked up. Instead it requires a desire to join the sub-cultural group by acquiring complex sensory and motor skills not shared by those outside this group. It is possible to distinguish different capitals that have to be brought together to bring about windsurfing but material and embodied capital can only be realised through the material interaction between them. More than this though, the physical capital of windsurfing, while it may give the sport its distinctive and extreme character, only makes sense, only becomes meaningful to participants, through the social process of a sub-culture. Rather than thinking of windsurfing in terms of its orientation to class as Bourdieu does, we feel it is more interesting to understand it as a sport that is extreme in the commitment to the distinctive sub-culture of embodiment that it involves.

Sub-cultural Capital and Embodiment

The term sub-cultural capital was coined by Thornton (1995) in her appropriation of Bourdieu's work on 'distinction' to understand the cultural distinctions, or authenticity claims that mark contemporary youth dance cultures. Sub-cultural capital, involves distinctions between insider and outsider – 'us' and 'them' – but also helps make sense of the status hierarchies within the culture, recognising the ways in which the social determinants of class, age, gender, sexuality and race are all employed in these hierarchies (1995: 105).

Ethnographic research on windsurfing (and other similar 'lifestyle sport' cultures such as surfing, skateboarding and snowboarding) has shown that participants seek out a lifestyle that is distinctive, sometimes alternative, and that this gives them a particular and exclusive social identity. Moreover that membership, identity and status is influenced by factors including class, gender and race.³ However, the meaning of participation is articulated as the embodied performance of the activity, around the felt experience of doing it. The sport has a participatory ideology that promotes fun, involvement, 'living for the moment' and other intrinsic rewards. Participants talk about 'the adrenaline rush' and the thrill (Wheaton & Beal 2003).

³ See for example chapters in Rinehart & Sydnor 2003; also Wheaton (2002); Wheaton & Beal (2003).

Windsurfers are not a homogeneous group. Those who do the sport range from novices through the 'weekend warriors,' to the 'hard core' committed practitioners who are fully familiarised in the lifestyle, argot, fashion and, centrally, the technical skill of their activity. Yet they share an understanding of the specific embodiment it entails as well as how the physical prowess translates into forms of sub-cultural capital or status. Despite the visibility of symbolic markers of the windsurfing participant's identity, such as surf clothing, it is the less visible embodied aspects of identity such as skill, commitment and attitude that are often more significant to the participant's notions of 'authenticity'. For example, although clothing and style is an integral part of the windsurf culture, windsurfers did not want to be seen to be buying into an image and have coined terms such as 'fashion surfers' to describe those individuals who try to display their sub-cultural identification solely via surf style (or by conspicuously displaying – rather than using – their equipment).

It's almost a spiritual thing [...] the feel good factor is so high - even if you've had a bad spell it's better than not sailing at all - you know, like the buzz I get, the endorphin sort of buzz. The simple physical feeling it gives you is great I think, and the mental spin-off [...] I don't know a single other sport that's been able to give me those sorts of things. [...] So, I think it's just, it's terribly life enhancing.

when I discovered windsurfing it was so far from everything I was used to, the other sports, because it is natural, you have freedom and big space, and crazy sensations.

The meaning of windsurfing for the participants is found in the body, in their creative and self actualization potential. Although participants invest heavily in their lifestyles and identities, this commitment is a commitment to pleasure, what they call the buzz, the ecstasy of speed, being at one with the environment, the standing still of time, experiencing what Csikszentmihalyi (1975) describes as flow.

The motivation to engage in the action and the pleasure derived from engagement are linked to how the body has learnt to be in the world. This is indeed a cultural process in the sense discussed by Mauss as a 'technique of the body' (1973) that maybe acquired through particular circumstances. It is not a sport that is acquired through ordinary engagement with peer groups or participation through school or family as is the case with most traditional sports. Rinehart & Sydnor (2003) have termed activities like windsurfing 'expressive' sports in contrast to the reward driven 'spectacle' sports, as they are rarely conducted for spectators or

competitive practice, emphasising the aesthetic realm in which one blends with one's environment. Some windsurfers go so far as referring to their activities as art, or as a spiritual experience:

We go down the beach and look out, [...] We admire their styles.. It's like going to an art exhibition and saying that's quite a good painting.

Similarly, in Parlebas's categorisation of modern sporting practices, he includes windsurfing in the category of sports that he labels 'ludomotricité', that is, they are characterised by the pleasure achieved through the play activity itself (1999a: 225). The sorts of modern sport practices that he includes in this category are scramble-biking, hot-air ballooning, hang-gliding, surfing and white-water canoeing. They have, he suggests, a series of features in common: they take place in wild environments beyond social control and management; the subject acts as an individual and interaction with others is not essential; the locomotive force is external to the body, although the pleasure is in the motor and decision skill in relation to that force; they involve a visceral response to the normal mode of posture and movement which is thrown vertiginously into confusion (Parlebas 1999a: 228).

There is a distinct 'praxeology' as Parlebas (1999a; b) and Warnier (2001) would have it, in which actions and objects entail each other and their relationships have a patterned quality that must be acquired beyond the ordinary, routine acquisition of the cultural practices. This acquisition does not routinely occur within the habitus – unlike many ball games learnt casually on the streets or in the playground – but must be acquired through the desire of the individual to seek out certain sensations and certain sub-cultural contexts. There she or he must acquire a certain disposition in the body and take pleasure in the vertiginous sensations of speed, movement and maintaining bodily control that is always close to being lost. To enter that sub-cultural group she or he must learn a distinctive series of smoothly linked together actions as responses to sensations received through all the senses but most importantly the haptic and proprioceptive sensors. It is the praxeology of windsurfing that is extreme.

Thrill Seeking

As we have argued, windsurfing is not an extreme sport in terms of danger. Nevertheless, as Stranger (1999) points out in his analysis of the aesthetics of risk in high-risk leisure such as

surfing, there is a thrill involved with risk taking that is an important embodied aspect of these physical experiences. Danger and excitement are fetishized in the 'go for it attitude' that characterises hard core windsurfing. Like surfers, climbers, and BASE jumpers, kite-surfing challenges restrictions based on safety. Stranger is critical of sociological theories that attempt to explain this risk taking as reflective of rapid social changes - such as Giddens's (1991) reflexive risk managers. While acknowledging the attempt made by Elias & Dunning (1986) to recognize the importance of the thrill experienced in sport, he is critical of their quest for excitement thesis, which fails to explain individualistic pursuits conducted in the absence of a crowd of spectators, nor the uncertain and at times dangerous nature of risk taking in these unregulated leisure forms such as wave windsurfing and certainly in the more dangerous sport of kite-surfing. In examining the aesthetic quality of surfing, Stranger argues that the search for thrill is part of a self-transcendence experience. He explores how accounts of the nature of the thrill in risk taking leisure activities often emphasize ecstatic feelings of oneness with the environment, the loss of self and intense awareness of the moment. He links this quest to the 'postmodern mode of aestheticization' because postmodern cultures involve an 'aesthetic of sensation replacing the increasingly impossible demands of modernity for rational *interpretation*' (1999: 270).

As anthropologists Midol & Broyer (1995: 207) also observe, 'whizz' sports like windsurfing are 'playful practices' replacing the morality of guilt by a pleasure seeking grounded in the 'here and now.' In contrast to capitalism's temporal production, lifestyle sport time is immediate and discontinuous (Borden 2001). Participants are not concerned with their health, longevity and self preservation. Rather they seek a relationship between body and self that emphasises intense but short-term experiences, and the 'inner' or 'felt' body – not the commodified, aestheticised and disciplined body that many describe as symptomatic and expressive of contemporary consumer culture. Obviously windsurfing bodies are subject to these processes as well, particularly the commodification and sexualisation of female bodies, most conspicuous perhaps in the windsurfing magazines and videos. But the unashamed display of the tanned, lean and fit outer-body coexists with hedonistic pursuits of pleasure or self-actualisation (Laviolette Forthcoming).

Conclusions

We have argued in this paper that windsurfing is an extreme sport because it combines material, embodied and sub-cultural capital in ways that cannot be separated out. This brings into question Bourdieu's approach to the place of sport in culture in which various forms of capital are accrued that reflect social status; different forms of capital are passed on through the habitus in different ways and the transformation of one type of capital into another is often difficult to achieve within a lifetime. This may have worked for yachting and even dinghy sailing, but with windsurfing the motivation and pleasure derived from participation is more direct (*ludomotricité*) and status is oriented to participation within the sub-culture rather than to the society as a whole.

The payoff for the accumulation of embodied and material capital, is the thrill and sensation that is experienced by the individual as they interact – the distinctive 'praxeology' of the sport. This mode of pleasure is aesthetic but not simply in an outward way. The experience of whizz and flow, the buzz and excitement can be appreciated both internally, as emotions are stimulated by physical sensation and externally within a social context in which such experiences are shared. The sharing is guarded by strategies to exclude – sometimes unjustifiably – those who are not fully engaging in the activity because they are deemed to be lacking in the necessary material, embodied or sub-cultural capital. Nonetheless, it is the shared understanding of the windsurfing experience within the sub-culture of windsurfers that ultimately gives meaning to the distinctive merging of body, kit and environment. This turns windsurfing into the extreme sport that it is.

References:

- Borden, I. 2001. *Skateboarding space and the city: Architecture and the body*. Oxford: Berg Publishers.
- Bourdieu, P. 1978. Sport and social class. *Social Science and Information*. 17 (9): 819-40.
- Bourdieu, P. 1986. *Distinction: A social critique of judgement and taste*. (Trans Rice). London: Routledge.
- Csikzentimihalyi, M. 1975. *Beyond boredom and anxiety: Experiencing flow in work and play*. San Francisco: Jossey Bass.
- Dant, T. 1998. 'Playing with things: Objects and subjects in windsurfing'. *Journal of Material Culture*. 3 (1): 77-95
- Dant, T. 2004. 'The Driver-Car.' *Theory Culture and Society*. 21 (4-5): 61-79.

- Elias, N. & Dunning, E. 1986. *Quest for excitement: Sport and leisure in the civilizing process*. Oxford: Basil Blackwell.
- Giddens, A. 1991. *Modernity and self-identity*. Cambridge: Polity Press.
- Laviolette, P. Forthcoming. 'A leap of faith into the Devil's Frying-pan: Sport in History .' Pending Rev.
- Mauss, M. 1973. Techniques of the body. *Economy and Society*. 2 (1): 70-88.
- Merleau-Ponty, M. 1962. *Phenomenology of Perception*. London: Routledge.
- Midol, N. & Broyer, G. 1995. 'Toward an anthropological analysis of new sport cultures: the case of whiz sports in France.' *Sociology of Sport Journal* 12 (2): 204 - 12.
- Parlebas, P. 1999a. *Jeux, sports et sociétés: Lexique praxéologie motrice*. Paris: Institut National du Sport.
- Parlebas, P. 1999b. 'Les Tactique du corps'. In: Julien, M-P. & J-P. Warnier (eds). *Approches de la culture matérielle*. Paris: L'Harmattan.
- Rinehart R. & Sydnor, S. (eds.). *To the extreme: Alternative sports inside and out*. New York: SUNY Press.
- Stranger, M. 1999. 'The aesthetics of risk: A study of surfing'. *International Review for the Sociology of Sport*. 34 (3): 265-76.
- Thornton, S. 1995. *Music, media and subcultural capital*. Cambridge: Polity Press.
- Warnier, J-P. 2001. 'A praxaeological approach to subjectivation in a material world.' *Journal of Material Culture*. 6 (1): 5-24.
- Wheaton, B. 2002. 'Babes on the beach, women in the surf: Researching gender, power and difference in the windsurfing culture.' In: Sugden, J. & Tomlinson, A. (eds.). *Power games: A critical sociology of sport*. London: Routledge. 240-66.
- Wheaton, B. & Beal, B. 2003. 'Keeping it real': Subcultural media and the discourses of authenticity in alternative sport. *International Review for the Sociology of Sport*. 38 (2): 155-76.
- Young, I. M. 2005. *On female body experience: 'Throwing like a girl' and other essays*. Oxford: Univ. Press.