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An independent academic psychologist, based in England, who has written extensively on different areas of psychology with an emphasis on the critical stance towards traditional ideas.

A complete listing of his writings at http://psychologywritings.synthasite.com/ and http://kmbpsychology.jottit.com.

CONTENTS

1. AESTHETIC LABOUR AND THE BODY

1.1. PERSONAL TRAINERS

"Aesthetic labour" (AL) is work where the individual's "embodied competencies" (Warhurst et al 2000) or "physical capital" (Bourdieu 1985) [1] is leased to a company. "Aesthetic labour is often said to manifest in the 'look', or indeed the comportment, voice or other physical characteristics, of the employee which is commodified by the labour process and transformed into competencies 'geared towards producing a "style" of service encounter deliberately intended to appeal to the senses of the customers' (Nickson et al 2003) in order to create commercial value. Indeed, it is now commonly accepted that the aesthetic of the employee can be of considerable value to the firm as an organisational artefact, or an aesthetic artefact (Hancock and Tyler 2000), in the sense that the employee 'look' depicts the image, strategy and indeed body of the firm" (Harvey et al 2014 p454) [2].

AL has been studied in retail sales assistants, for example, whose appearance is used by the company "to convey the image of a product" with these employees embodying the brand (Harvey et al 2014). In everyday language, the staff with the "right look", or, more technically, "embodied competencies" [3].

Harvey et al (2014) applied AL to self-employed personal trainers (PTs) based on participant observation and seventeen in-depth semi-structured interviews at two fitness centres in South Wales.

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[1] "The production of physical capital refers to the social formation of bodies by individuals through sporting, leisure and other activities in ways which express a class location and which are accorded symbolic value" (Shilling 1991 quoted in Harvey et al 2014).

[2] Morris (2007) noted that "in the extraction of surplus value from labourers under the current economic dispensation... the disenfranchised poor and especially women become increasingly and specifically subject to the operations of trans-national capital" (p366).

[3] In relation to gender, Butler (1993) used the term "stylised repetitions" to describe rituals where "the effect of rites of gender assignment or marriage, for example, is less the accomplishment of a new categorical status than the demand that individuals continually reiterate the forms within which that status would be socially legible" (Morris 2007 p364).

Frew and McGillivray (2005) described PTs as "the embodied labour of health and fitness clubs [that] operates to accentuate consumer desire... Their bodies are referential texts or marketing mediums to be read by and influence consumers groups. They are physical manifestations of the idealised classical body, being fat free, toned and in proportion, qualities synonymous with purity and success" (quoted in Harvey et al 2014). So, put simply, the PT is "embodying an aspirational look or lifestyle" (Harvey et al 2014).

Harvey et al (2014) noted three components of physical capital that were evident:

i) Adornment - "extra-physique modification of appearance". For example, "uniform" or clothes worn to distinguish PTs from "ordinary" fitness centre staff. "Phil" told this story: "When I first started the job we had to wear orange T-shirts with 'Personal Trainer' on the back. We looked exactly the same as the staff on reception, which is fine. People got used to the fact that if you were a PT then you'd have it written on the back. Then after about 4 months, new trainers began to come in who were given completely different uniforms to us. Nice smart black ones. And people cottoned on that they were PTs. They were wearing completely different uniforms that were very smart as opposed to our tatty orange T-shirts. That annoyed me. I complained. I said that either everyone has to be orange or everyone has to be black" (p461).

ii) Capacity - physical ability of individual. PTs would work out when not directly helping clients "to demonstrate their physical capacity in order to attract clients who might be sufficiently impressed or intrigued to solicit their service. Frequently, throughout the period of observation, PTs were observed working out by performing a complex or otherwise difficult movement in order to illustrate their physical capacity" (Harvey et al 2014 p462).

iii) Physique - physical aspects of the individual. For example, "Deidrie" talked about her choice of shorts rather than trousers: "So when people see me in shorts they think 'My God, your legs are solid'. They appreciate my legs when they see them in shorts because they can see that it's solid muscle. If you've got trousers on then it doesn't look the same" (p461).

Though physical capital was important, "'excessive' physical capital becomes problematic" (Harvey et al 2014). For example, "Phil" commented that "if you're really muscular and you've got veins popping out everywhere then people won't come up to you" (p464). Harvey et al (2014) stated that "physical capital can act

to limit consumption if it reinforces the potential consumer's feeling of inadequacy or insecurity, pointing to their 'fat and flaccid (carnival) body [which] signifies weakness and lack of moral virtue, emphasising the visible and literal "sins of the flesh"' (Frew and McGillivray 2005). This may serve to intimidate and dissuade potential customers of fitness centres. Thus, a key conceptual implication of this work is to highlight the ambivalence of physical capital for the PT as opposed to the idea that physical capital is unproblematically positive (or negative) in work contexts such that the more capital that is amassed, the more successful the individual" (pp464-465) [4].

1.2. GYM USERS

Thualagant (2016) explored the "bodywork" of users of ten club-based fitness centres in Denmark with interviews with younger men (18-29 years old) and middle-aged women (50-59 years old). The interviewees worked-out at least twice a week, and the work-out was seen as "a bare necessity" (ie: "bodywork as almost an obligation in relation to the feeling of well-being"; Thualagant 2016).

The interviewees emphasised the benefits for future health as the main motivation. But the "enhancement and improvement of the bodily appearance is essential for the younger men interviewed... They expressed ideals of a masculine body and negotiated on the ideal fit and healthy looking body and portrayed a healthy body as a fit and muscular body" (Thualagant 2016 p195). These individuals felt healthy when they looked in the mirror or after pushing themselves to train harder.

The women interviewed talked positively about doing something for their health - being physically active: "Through their conversations the middle-aged women internally negotiated and portrayed themselves as entrepreneurs of their body capital" (Thualagant 2016 p196).

For all interviewees physical health was "connected to a sentiment of well-being and a sense of control" (Thualagant 2016 p196). This also included "a conscious approach to nutrition" (Thualagant 2016).

Thualagant (2016) described the behaviour of the interviewees as "bodywork" [5] or "body projects", which

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[4] Jackson (2014) commented: "Richard Sennett (2009) has written beautifully of traditions of craft and the special relationship between worker and the object of labour this has historically produced. The decline of craft traditions — which Sennett extends in principle to modern pursuits as varied as medicine and computer programming, parenting and citizenship — constitutes a significant weakening of our connection to the worlds of goods and work we inhabit today" (p232).

[5] "Bodywork" is described as "practices or 'work' one performs on one's own body... connected to

focused on the ability of the body. "Despite their age or difference of gender, they seem to have one task in common, namely the idea of an optimisation of the body, that is the act of rendering the body as optimal as possible in order to achieve more or better health (Thualagant 2016 p199).

But this takes place in a social context - "the health society" (Kickbush 2007) - "health is no longer just an outcome of the social and economic developments but has become a defining characteristic of society and thus central" (Thualagant 2016 p199).

"Encouraged by the neo-liberal impetus that appeals to an individual responsibility towards the path of a healthy life, these agents act as entrepreneurs of their own healthy lifestyle by moving their bodies, working with and on their bodies, and opting for different body and performance enhancing strategies" (Thualagant 2016 p199).

Lipovetsky (2006 quoted in Thualagant 2016) used the term "hypermodern society" to describe the increased individualism, which, through narcissism, influences "the way the body is lived" (Thualagant 2016). "The era of hypermodernity is depicted as a radicalisation of the individualism emerged in post-modern society and in this sense hypermodernity can be comprehended as an era evolving around a second wave of individualism, in other words, as post-post-modern society. Embedded in a culture of consumption, the hypermodern times are enrolled in an economic rationale where everything is consumable, even health" (Thualagant 2016 p199).

This manifests itself in "performance" (Ehrenberg 1991 quoted in Thualagant 2016) ie: doing something but in relation to norms. "Running a marathon is no longer just a challenge that some enthusiastic runners can be proud of, it has become an accomplishment that work and career consultants encourage job applicants to put into their CV as a transferable skill" (Thualagant 2016 p200).

The interviewees existed in a social context where they "can act for health" (Thualagant 2016). Though they may have been satisfied with their health, there was always a possibility to be healthier. "Bodywork can thus in the perspective of a hypermodern society be approached as not only the will to act for a healthy body but also as the will to act for a more healthy body" (Thualagant 2016 p200). The possibility of better health meant that

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aesthetic modifications or maintenance of the body, and includes dieting or eating practices, exercise regimes, wearing make-up, tanning, tattooing and cosmetic surgery" (Coffey 2016 pp169-170).

"investing in their body capital" was a "normal" thing to do (Thualagant 2016).

It is about "becoming", and Deleuze (1992) asked "what can a body do" rather than "what are bodies" (Coffey 2016). The body is seen as an "assemblage" (Deleuze and Guttari 1987), which "places attention on the other things the body engages with, including discourses, affects, ideals, norms, practices, institutions and other bodies and objects" (Coffey 2016 p174).

In her research, Coffey (2016) performed interviews with men in their 20s in Melbourne, Australia, in order to explore how "bodywork practices" were related to health. Appearance was important, particularly "big and strong". "Finn", for example, stated: "I want to be muscular, I want to be seen as like, strong, in everything" (p176). This fits with the "look good, feel good logic" (Featherstone 2010). But the men also rejected that they were under pressure to look good compared to women - eg: "Paul" said: "I certainly don't think about my appearance anywhere nears as much as women I know. I don't have to" (p177). Contradictions are at the heart of the physical body for men - to look good, especially muscular is masculine, but not to be preoccupied with appearance (which is feminine).

1.3. FEMALE BODIES MOSTLY

1.3.1. Cosmetic Surgery

Cosmetic surgery has grown in popularity in recent years to be almost normal for women, particularly in the USA. Brooks (2004) wondered why. She concentrated on three factors specifically to explain the US situation:

i) The deregulation and commercialisation of American medicine - From the 1980s, in particular, companies providing cosmetic surgery have been able to market and advertise themselves in the same way as (and with similar language to) companies producing any products or services.

ii) Narrative themes in media coverage - Brooks (2004) analysed articles on cosmetic surgery in "Vogue", "Harper's Bazaar", "US Weekly", "People" magazines between 2001 and 2003. Two themes emerged that presented cosmetic surgery in a positive light - cosmetic surgery as new technology, and candid person accounts of the benefits of cosmetic surgery.

In relation to the former theme, concepts like "scientific wonder", "innovation and progress", and "medical expertise" were prominent. Ease, convenience and

availability were emphasised. For example, referring to Perlane treatment (a biosynthetic form of hyaluronic acid injected into the cheeks), an user reported: "I injected freshness and life into my face with less time and effort than a visit to the hairdresser" (p217). Another article talked of "an evening of mixing girlfriends, gossip, and Botox shots" (p217).

The second narrative theme involved the personal stories of, usually, celebrities who had undergone cosmetic surgery.

"As new cosmetic technologies are touted as fantastical and wondrous, innovative and progressive, these same characteristics are equated with the people who use them. Praised for their courage, daring and forward-looking sensibilities, women who embrace new technologies without fear or hesitation become living symbols of scientific advancement and innovation. News anchor Greta Van Susteran's eye-lift is admired as a 'bold look'... and television star Patricia Heaton proudly describes her decision to have a tummy tuck and breast lift as a forward leap: 'the future is here!'" (Brooks 2004 p218).

iii) New forms of social control - Morgan (1991) agued that "cosmetic surgery fuels a 'pathological inversion of the normal' – as more women obtain 'surgically created, beautiful faces and bodies' the naturally given will be labelled the 'technologically primitive' while the '"ordinary" will be perceived and evaluated as the "ugly"'" (Brooks 2004 p225). The actress Carrie Fisher recalled her mother's 70th birthday party where the one woman "who had had nothing done" "stood out" (p225).

Morgan (1991) referred to cosmetic surgery as a kind of "technological beauty imperative" - "by making feminine ideals of youth and beauty 'technologically achievable' cosmetic surgery also makes 'obligatory the appearance of youth and the reality of "beauty" for every woman who can afford it'" (Brooks 2004 p209).

Brooks (2004) summed up her view: "Individuals often experience their cosmetically altered bodies as expressive of their 'true' selves (Kathy Davis [1995] describes cosmetic surgery as 'reducing the distance between the external and the internal'), and many feel comfortable, 'at home', and embodied in their cosmetically altered bodies. Without contradicting the validity of these experiences, I suggest below that cosmetic surgery can also disrupt the potential for reflexive communication between self and body. On the one hand, cosmetic surgery can produce a body of limited capacity, lacking in physical sensation and responsiveness, a body less able to reflect the full range and complexity of subjective experience. On the

other hand, cosmetic surgery, and the tolerance or dismissal of bodily responses such as pain, blood and bruising that often accompany it, may begin to discredit the body's role as a knowledge source and self-informant. Whether through rendering a mistrust of bodily signals, or the production of a body of reduced sensation and expressiveness, cosmetic surgery can restrict interactive relations between self and body, or put differently, invoke a loss of embodied knowledge" (p228).

Though some of the articles analysed by Brooks (2004) admitted to the realities of cosmetic surgery, in most cases it was played down. For example, a celebrity undergoing eye-life surgery had "her eyes partly sewn shut" and spent three weeks looking "like a victim of spousal abuse" (Brooks 2004).

Brooks (2010) focused on older adults: "Fierce competition between medical professionals who advertise their products and services to solicit patients, direct-to-consumer pharmaceutical advertising, and the fast-track approval process for new pharmaceutical drugs means that older Americans are increasingly targeted as potential recipients of anti-ageing technologies and medications" (pp238-239).

Added to the general factors about cosmetic surgery discussed above, older women, in particular, are confronted with "decline narratives" (Gullette 2004) that equates age with decay.

Brooks (2010) interviewed forty-four 47-76 year-old US women who have used, resisted, or were unsure about aesthetic, anti-ageing surgeries and technologies. A number of themes were drawn out of the transcripts:

a) "Faith and comfort in new technologies" - eg: "Caroline" (47 years old): "I think it's great that they [cosmetic surgeries and technologies] are out there. We [my friends and I] always say, 'yeah, it's great, who knows what they'll have in 10 years'. I think the less invasive the better. All these little advances mean that you can keep tweaking, without really, you know, having to do major work. You know, why not? 'Keep working in your labs, that's all I have to say! Keep at it!" (p244).

b) "Technological power, magic, and seduction" - eg: "Amy" (48 years old): "It's almost like magic and I totally can see how women, especially as we age, get seduced into 'oh, let me do a little bit of this', because it is very enticing... Going in [to surgery] my line was 'this is all I'm ever going to do' like I've drawn the line and that was it. [But] afterwards I kind of sat there and thought, 'oh, you know, I might get an eye job at some point' and 'yea, I mean, never a full face lift, but I can see, you know, a little bit here and there...'" (p244).

c) "Technology as life-renewing, death resistant" - Brooks (2010) observed: "My respondents often equate their surgeries and technologies with the achievement of a more youthful, more healthy, more rested, more energised look. Outside the achievement of more youthful look, however, 'going back a few years' or 'turning back the clock' can also signify a belief in actually becoming younger. Some of my respondents experience anti-ageing surgery and technology as energy producing and life giving; they come out of surgery feeling pleased not only with their younger look, but also with their literally de-aged faces, bodies, and souls" (p245).

For example, "Amy" described being recharged after her surgery: "All of a sudden something feels drastically better and it's kind of like 'wow I can keep going'. With the ageing process you feel like you're going in a good direction from many respects, but from your body's respect, it's tough. And all of a sudden something's been reversed and it's like 'wow, I can really go off in this direction!'" (p245).

d) "The technological imperative" - Interviewees were troubled by the large amount of advertising of anti-ageing surgeries and technologies. "Such exposure can lead women to feel worse about ageing and to feel increasing pressure to 'do something' about the age-related changes in their faces and bodies. What had been felt and perceived to be a natural, normal, and even universal process (ageing) is increasingly experienced as pathological, as a problem in need of fixing and repair. The existence of these surgeries and technologies – the very fact that women can make the choice to have and use them – makes some women feel personally responsible for their ageing faces and bodies. Ageing becomes their fault" (Brooks 2010 p247).

Two women's comments showed the pressure. "Lucy" (62 years old) said: "You go in [to her local doctor's office at her Health Maintenance Organisation] and there's this huge sign in the hall about all the cosmetic surgeries they offer now... It makes you stop and think about 'oh, my God, everybody must be doing this'" (p247). "Mia" (59 years old) commented: "You see it all the time and it makes you think: 'Oh, is that something I should be thinking about?' Or, 'Am I so out of the mainstream or am I so weird, that I don't care about this?'" (p248).

e) "The female imperative" - Women often experience the ageing process "worse". Sontag (1997) talked of a "double standard of ageing". "Unlike men, who are valued for capacities such as individual agency and for unique thoughts and actions, women's value is more likely to be linked to their sexual attractiveness and reproductive viability. A man's social value, and even his perceived physical desirability, often increases with age, while a

woman's decreases" (Brooks 2010 p250). While Bartky (1999) stated: "We need to see but also to be seen and to be seen as attractive... a woman's worth, not only in the eyes of others, but in her own eyes as well, depends, to a significant degree, on her appearance" (quoted in Brooks 2010).

Two quotes represent opposing views of this. "Mary" (72 years old): "I think it's stupid not to do everything you can, particularly if you're single. You just have to do what you can with what you have... I mean, why not [get a face lift]? You might as well do what you can" (p250). On the other hand, "Laura" said: "Why should an older woman be expected to be sexually attractive and have a hot body? I shouldn't feel badly if people don't find my 91-year-old mother-in-law sexually attractive. She is attractive, just in a different way" (p251).

Brooks (2010) concluded: "My data suggest that the growing availability, marketing, and use of aesthetic anti-ageing surgeries and technologies in the United States both 'reproduce' and 'reconfigure' (Joyce and Mamo 2006) mainstream American cultural attitudes about women and ageing. As my respondents' experiences and perspectives illuminate, aesthetic anti-ageing surgeries and technologies project a new paradigm of ageing, one that echoes the successful ageing directives of individual responsibility, effort, and work on the body, but also intensifies and expands these directives and contributes more ambitious goals. Ageing successfully, in light of the increasing prevalence of aesthetic anti-ageing surgeries and technologies, comes to mean not only maintaining a healthy, active body through diet and exercise, but a young-looking body (and face) through surgery and injectables. My respondents articulate an aesthetic anti-ageing surgery-and-technology-driven paradigm that edges out successful ageing in favour of a kind of feminised agelessness – health work on the body in the context of ageing is subsumed into youth/beauty work on the body that aims to minimise, reverse, and even prevent signs of ageing altogether" (p251).

1.3.2. "Beauty Apps"

Elias and Gill (2016) noted the growing use of "aesthetic self-tracking and modifying devices" or "beauty apps" on smartphones that allow individuals to assess their level of beauty (eg: "Golden Beauty Meter" - "determine if you are pretty or ugly"), or enhance photographs of the self (eg: "Beauty Mirror" - "lets you

play plastic surgeon on your face") [6]. Their use is part of "a wider trend towards self-tracking and self-monitoring" (Elias and Gill 2016) and the "quantified self" (QS) (Lupton 2014a quoted in Elias and Gill 2016). Lupton (2014b quoted in Elias and Gill 2016) linked the QS to neoliberalism: "the very act of self-tracking, or positioning oneself as a self-tracker, is already a performance of a certain type of subject: the entrepreneurial, self-optimising subject" (quoted in Elias and Gill 2016). Elias and Gill (2016) argued that "beauty apps mark out a particularly powerful example of the intensified surveillance of women's bodies, whereby the ever more fine grained, metricised and forensic scrutiny of the female body is increasingly mediated by the mobile phone" (p5).

Health and lifestyle self-tracking is popular, with the help of various apps, but the technology and its use is not unproblematic (Elias and Gill 2016). For example, Lupton (2014a quoted in Elias and Gill 2016) distinguished three modes of "self-tracking":

a) "Private self-tracking" - for personal reasons and the data are kept private;

b) "Pushed self-tracking" - encouraged by medical professionals, for instance;

c) "Imposed self-tracking" - at the behest of an external organisation and involving coercion (eg: prison; call centre).

Though this last mode is seen as regulating behaviour, Nakamura (2015) saw it as creating "new gendered, racialised, and abled or disabled bodies through digital means". But surely the use of "beauty apps" is "freely chosen" comes the reply.

Put simply, based on the ideas of Foucault, neoliberalism has introduced "government" where individuals police themselves ("internal surveillance") in certain areas of life compared to State coercion in the past. The upshot is a deal - certain kinds of freedom, empowerment and choice in exchange for self-surveillance and the focus on the individual. McRobbie (2009) has argued this in reference to young women and post-feminism. "Both post-feminism and neoliberalism are

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[6] Elias and Gill (2016) categorised five types of "appearance or beauty apps":
i) Apps that "teach beauty techniques";
ii) "Virtual makeovers";
iii) Cosmetic surgery "trying on" (eg: reshape nose);
iv) Self-surveillance apps that "scan" the body for flaws and damage;
v) "Aesthetic benchmarking apps" - ie: rate attractiveness.

structured by a grammar of individualism that has almost entirely replaced notions of the social or political, or any idea of individuals as subject to pressures, constraints or even influence from the outside. In post-feminist culture, women are interpellated as active, autonomous and self-reinventing subjects, whose lives are the outcome of individual choice and agency" (Elias and Gill 2016 p10).

Within all of this is the strand of patriarchy "taking its revenge" in the "fashion-beauty complex" (McRobbie 2009), "an institutionally unbounded assemblage producing aspecific kind of female subject who is perpetually dissatisfied and unhappy with her body and appearance and thus compelled to embark on new regimes of 'self-perfectibility' (McRobbie 2009). This individualist striving for perfection is best understood as entrepreneurial self-work and, more specifically, self-capitalisation concentrated on the visual register (Conor 2004) and effected through consumer regimes of beauty – and increasingly psychic – labour" (Elias and Gill 2016 Elias and Gill 2016 p10).

This is evident in the "makeover paradigm" (Elias and Gill 2016). Though the emphasis can appear to be on being a "better person", it is about the "reinvention of the body", "but also remodelling psychic life, requiring a makeover of subjectivity itself – whether this is to produce the 'sexual entrepreneur' who is 'compulsorily sexy and always "up for it"' (Harvey and Gill 2011) or the 'confident woman' of Lean In [7] or women's magazines who must exude well-being, 'positive mental attitude', and self-esteem, however fragile or insecure she may actually be feeling" (Elias and Gill 2016 p11).

1.3.3. Obesity

"The Biggest Loser" (TBL) is a reality television weight-loss programme that is presented and perceived as a positive response to the "obesity crisis" as diet and exercise are emphasised. Monson et al (2016) challenged this view: "weight-loss and obesity discourse is multi-faceted and complex; beyond the messages of healthy lifestyle choices are values relating to personal responsibility and failure, as well as messages that construct overweight and obese individuals as unable to successfully manage their bodies or their lives" (p525).

Linking to critical voices, like Gard and Wright (2005), the term "obesity crisis" draws attention to weight and "weight-loss discourse addresses everyone irrespective of current body size... Whether you are

[7] Eg: an online community "helping all women achieve their ambitions".

working to obtain or maintain a thin body you must remain ever vigilant; 'everyone everywhere' is vulnerable" (Monson et al 2016 pp525-526).

Programmes like TBL emphasise "negative stereotypes of overweight and obese people; the notion that fat people are lazy and greedy and lack the ability to manage their lives..., as well as the belief that fat people cannot be happy or successful in their lives, nor can they love themselves or be loved by others... The visceral revulsion towards fatness that is encapsulated in TBL contributes to the climate in which even fat acceptance advocates themselves still sometimes experience strongly ambivalent personal desires around weight loss... Studies have also suggested that TBL increases the belief that weight is controllable and a matter of purely personal responsibility, a belief that is central to the stigmatisation of overweight and obese individuals among the general public... as well as fitness and health professionals" (Monson et al 2016 p526).

Reality television often has a makeover/transformation narrative "in which any and all aspects of life can be made better with the help of targeted advice from experts and sufficient hard work... The makeover programme isnot just about the ideal subject in terms of body size/parenting skills/fashion sense/home décor who is triumphantly revealed at the end, but also about the 'journey' whereby the participant is coached on the correct ways to manage their feelings and behaviours" (Monson et al 2016 p527). This narrative fits with the "techniques of governmentality" (Ouellette and Hay 2008), or a fairytale myth where waving a magic wand will make everything better (Ibrahim 2007). Levy-Navarro (2012) felt that programmes like TBL "relegates every fat body to 'before' status: inherently problematic and requiring work and transformation" (Monson et al 2016 p526).

Monson et al (2016) performed a multi-modal discourse analysis on the ninety-minute last episode of the 2012 Auatralian TBL series. They found "discrepancies in the treatment of particular contestants in the finale, whether it is differences in clothing, camera angles, amount of camera time or the nature of the conversation with the host, communicate messages about success and value" (Monson et al 2016 p537).

1.4. ORGAN DONATION

Living donors can be used for blood, kidneys, liver lobes, stem cells, and eggs and sperm, while brain, tissues (including corneas and skin), and organs

(including heart, lungs, bladder, and prostate) require deceased donors (NCB 2011).

Three basic models exist in relation to donors and payment (NCB 2011):

i) Purchase as in any good or service for market value;
ii) Reward donor (ie: not full market);
iii) Recompense donor (eg: pay expenses).

The NCB (2011) could only find 22 studies on the use of financial incentives to increase donations. The quality of material can be poorer (eg: infected blood), and there is a "crowding out" of altruistic/unpaid volunteer donors (NCB 2011).

Research shows that many more individuals say they are willing to donate their organs after death than actually carry an organ donor card [8]. Then relatives may refuse the organs for donation after death (Hayward and Madill 2003) [9].

There are gender differences and ethnic variations. For example, in the former case, women are more likely to carry a donor card, but less willing to donate corneas and heart than men (Hayward and Madill 2003).

In terms of ethnic minorities in the UK, Hayward and Madill (2003), for instance, explored organ donation with five Muslim women and five Muslim men of Pakistani origin, and nine women and eight men who were White English in the north of England. Table 1.1 summarises the key themes for each group [10].

Hayward and Madill (2003) summed up the findings thus - "the act of organ donation can be perceived as involving a personal cost. This cost can be associated with religious belief, the ethics of the organ donation service, and scientific advances, as well as the meaning of the body and of specific body parts" (p397). The role of religious beliefs was an important difference between the Muslim and White respondents, though both groups talked in their own way about material intactness or the body after death.

The White respondents raised concerns about not trusting the medical profession to try as hard to save a dying donor card carrier.

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[8] In terms of willingness to carry an organ donor card, factors include knowledge about the system, a sense of responsibility or duty, and a lack of "squeamishness" (or "ick" factor or "jinx" of thinking about death) (NCB 2011).

[9] Seven factors that influence attitudes towards organ donation have been identified by studies - religion, culture, family, knowledge about organ donation, trust of medical authorities, fear, and education level (Gauher et al 2013).

[10] In the UK, 4% of the population is of Asian ethnicity, but only 1% of registered kidney donors (Gauher et al 2013). NHS Blood and Transplantation launched a campaign for more Black blood donors as only 1% of donors in England are from this ethnic group (Press Association 2017).

Muslim women	Muslim men	White women	White men
1. Costs and benefits. 2. Beliefs, rules and understandings mediate relationship with God. 3. Sense of self.	1. Perceived code of conduct for living as a Muslim. 2. Social effects of organ donation.	1. Sense of self. 2. Issues of control over distal systems. 3. Family issues.	1. Meaning of the body. 2. Issues of choice, control, power and authority.

Table 1.1 - Key themes from interviews for each group.

From the point of view of the individual receiving the organ, all groups wondered about the transmission of disease through donation and the lifespan of the donated organ.

Overall, Hayward and Madill (2003) pointed out that "in relation to organ donation, one cannot simply view people as 'rational' beings. One must understand that people are embodied beings whose sense of self is entwined with having and being a body, that concerns related to embodiment are often generated in metaphorical language, and that gender and ethnicity have an influence on the meaning of embodiment" (p399). But the key issue was weighing the costs and benefits or organ donation, and this was "related to religious considerations and family concerns as well as moral judgment of scientific and medical conduct" (Hayward and Madill 2003 p399).

Ferguson et al (2008), for example, found that personal benefits, like the donor feeling good about themselves, predicted future blood donation, while costs for non-donors included the fear of needles, and time constraints for blood donation in an Irish study (Harrington et al 2007). Other important factors include easy access to facilities versus fears (eg: unknown, needles, blood-borne diseases, fainting) (NCB 2011).

Gauher et al (2013) undertook focus groups and individual interviews with fifty-eight UK students of Indian and Pakistani origin. Six themes emerged from the data:

i) Religion - eg: concern about keeping the body intact among those who believed in reincarnation (Hindu), or the process of organ donation in relation to rapid burial practices (Islam).

ii) Limited awareness of the importance of organ

donation.

iii) Influence of medical education rather than general education - eg: "(Medical students) don't see death... the same way as I would view it because they are around it a lot more... they are used to it and open to things like organ donation" (male Indian; p363).

iv) Culture-specific factors - the students were more positive about organ donation than they believed their parents were, and this was related to the adaptation to British culture.

v) Treatment of donors and their organs - "Both Indians and Pakistanis expressed concern about not knowing the recipient of their donated organ. Participants expressed how they did not want their organs to be wasted and given to someone who may abuse them" (Gauher et al 2013 p364).

vi) Influence of family - eg: respect given to the family's wishes.

Gauher et al (2013) observed: "Similarities certainly exist between Indians and Pakistanis with respect to culture and family but it is the difference in the importance placed on religion that demonstrates why young Indian and Pakistani students should be considered separately in respect of attitudes toward organ donation" (p366).

1.5. REFERENCES

Bartky, S.L (1999) Unplanned obsolescence: Some reflections on ageing. In Walker, M.U (ed) Mother Time: Women, Ageing and Ethics Oxford: Bowman & Littlefield

Bourdieu, P (1985) The genesis of the concepts of "habitus" and "field" Sociocriticism 2, 11-24

Brooks, A.T (2004) "Under the knife and proud of it": An analysis of the normalisation of cosmetic surgery Critical Sociology 30, 2, 207-232

Brooks, A.T (2010) Aesthetic anti-ageing surgery and technology: Women's friend or foe? Sociology of Health and Illness 32, 2, 238-257

Butler, J (1993) Bodies That Matter: On the Discursive Limits of "Sex" New York: Routledge

Coffey, J (2016) "I put pressure on myself to keep that body": "Health"-related body work, masculinities and embodied identity Social Theory and Health 14, 2, 169-188

Conor, L (2004) The Spectacular Modern Woman: Feminine Visibility in the 1920s Bloomington: Indiana University Press

Davis, K (1995) Reshaping the Female Body: The Dilemma of Cosmetic Surgery New York: Routledge

Deleuze, G (1992) Ethology: Spinoza and us. In Crary, J & Kwinter, S

(eds) Incorporations New York: Zone

Deleuze, G & Gutteri, F (1987) A Thousand Plateaus: Capitalism and Schizophrenia Edinburgh: Edinburgh University Press

Elias, A.S & Gill, R (2016) Beauty surveillance: The digital self-monitoring cultures of neoliberalism European Journal of Cultural Studies (http://openaccess.city.ac.uk/15704/)

Featherstone, M (2010) Body, image and affect in consumer culture Body and Society 16, 1, 193-221

Ferguson, E et al (2008) Blood donation is an act of benevolence rather than altruism Health Psychology 27, 327-336

Frew, M & McGillivray, D (2005) Health clubs and body politics: Aesthetics and the quest for physical capital Leisure Studies 24, 161-175

Gard, M & Wright, J (2005) The Obesity Epidemic: Science, Morality and Ideology New York: Routledge

Gauher, S.T et al (2013) The factors that influence attitudes toward organ donation for transplantation among UK university students of Indian and Pakistani descent Clinical Transplantation 27, 359-367

Gullette, M.M (2004) Aged By Culture Chicago: University of Chicago Press

Hancock, P & Tyler, M (2000) The look of love, gender and the organisation of aesthetics. In Hassard, J et al (eds) Body and Organisation London: Sage

Harrington, M et al (2007) What would encourage blood donation in Ireland? Vox Sanguinis 92, 361-367

Harvey, G et al (2014) Working out: Aesthetic labour. affect and the fitness industry personal trainer Leisure Studies 33, 5, 454-470

Harvey, L & Gill, R (2011) Spicing it up: Sexual entrepreneurs and the sex inspectors. In Gill, R & Scharff, C (eds) New Femininities: Post-Feminism, Neoliberalism and Subjectivity Basingstoke: Palgrave Macmillan

Hayward, C & Madill, A (2003) The meanings of organ donation: Muslims of Pakistani origin and white English nationals living in North England Social Science and Medicine 57, 389-401

Ibrahim, Y (2007) Transformation as narrative and process: Locating myth and mimesis in reality TV Nebula 4, 4, 41-58

Jackson, S.J (2014) Rethinking repair. In Gillispie, T et al (eds) Media Technologies: Essays on Communication, Materiality and Society Cambridge, MA: MIT Press

Joyce, K & mamo, L (2006) Greying the cyborg: New directions in feminist analyses of ageing, science and technology. In Calasanti, T.M & Slevin, K.F (eds) Age Matters: Realigning Feminist Thinking New York: Routledge

Kickbush, I (2007) Health governance: The health society. In McQueen, D et al (eds) Health and Modernity: The Role of Theory in Health Promotion New York: Springer

Levy-Navarro, E (2012) "I'm the new me": Compelled confession in diet discourse Journal of Popular Culture 45, 340-356

McRobbie, A (2009) The Aftermath of Feminism: Gender, Culture and Social Change London: Sage

Monson, O et al (2016) Working hard on the outside: A multi-modal critical discourse analysis of The Biggest Loser Australia Social Semiotics 26, 5, 524-540

Morgan, K.P (1991) Women and the knife: Cosmetic surgery and the colonisation of women's bodies Hypatia 6, 26-53

Morris, R.C (2007) Legacies of Derrida: Anthropology Annual Review of Anthropology 36, 355-389

Nakamura, L (2015) Afterword: Blaming, shaming and feminisation of social media. In Dubrofksy, R.E & Shoshane, A.M (eds) Feminism Surveillance Studies Durham: Durham University Press

NCB (2011) Human Bodies: Donation for Medicine and Research London: Nuffield Council on Bioethics

Nickson, D et al (2003) Bringing in the excluded? Aesthetic labour, skills and training in the "new" economy Journal of Education and Work 16, 185-203

Press Association (2017) NHS launches urgent appeal for more black blood donors Guardian June 20th, p12

Ouellette, L & Hey, J (2008) Makeover television, governmentality and the good citizen Consumerism: Journal of Media and Cultural Studies 22, 4, 471-484

Sennett, R (2009) The Craftsman London: Allen Lane

Shilling, C (1991) Educating the body: Physical capital and the production of social inequalities Sociology 25, 653-672

Sontag, S (1997) The double standard of ageing. In Pearsall, M (ed) The Other Within Us: Feminist Explorations of Women and Ageing Boulder: Westview Press

Thualagant, N (2016) Body management and the quest for performative health Social Theory and Health 14, 2, 189-206

Warhurst, C et al (2000) Aesthetic labour in interactive service work: Some case study evidence from the "new" Glasgow Service Industry Journal 20, 1-18

2. INTEROCEPTION AND OTHER ASPECTS OF PERCEPTION AND EXPERIENCE

2.1 INTEROCEPTION

Interoception is "the sensory system that communicates the internal state of the body through signals originating from within the visceral organs" (Tsakiris and Critichley 2016 p1). It is distinct from information from the senses about the external world (exteroceptive senses), and automatic physiological responses (eg: hormones, autonomic nervous system).

Interoception includes information about the functional state and health of organs of the body, as well as "both sensing and integrating all aspects of the body's physiological state and motivational needs..." (Tsakiris and Critichley 2016). Thus it is also seen as the "physiological sense of the condition of the body" (Tsakiris and Critichley 2016).

The four main body areas studied are cardiovascular, respiratory, gastrointestinal and urogenital (Tsakiris and Critichley 2016).

There are individual differences in interoceptive awareness (metacognition) and accuracy (Garfinkel et al 2016). Greater accuracy has been found to associate with a feeling of greater emotional intensity (Wiens et al 2000), as well as better intuitive decision-making (Dunn et al 2010).

Interoception has been linked to a number of aspects of behaviour, including (Tsakiris and Critichley 2016):

a) Self-consciousness - eg: detecting heartbeat signals and "I" and "me" (Babo-Rebelo et al 2016).

b) Memory - eg: individuals with higher interoceptive accuracy were better at prospective memory tasks (ie: remembering a future event) (Umeda et al 2016; appendix 2A).

c) Emotions - eg: the relationship between physiological arousal and measures, and subjective experience (appendix 2B).

d) Abnormal behaviours - eg: poor respiratory accuracy (ie: awareness of breathing) and heightened anxiety, and high cardiac interoception (ie: awareness of heartbeat) and lowered anxiety (Garfinkel et al 2016; appendix 2C).

2.2. NOT MOVING

Noorani and Carpenter (2017) observed: "It is natural to imagine that the motor system exists so that we may move. Yet we only have to look at animals or people going about their normal business to realise that they are more often stationary than in motion" (p1). So, the physiology of the motor system includes inhibitory as well as excitatory processes. But "stillness cannot be achieved by simple inhibition: it is an active and highly demanding process that requires continual innervation of the muscles, and this innervation needs to be just as precisely regulated as during movement itself. It demands not only continual expenditure of energy but also continual computational effort; a suitable control system is likely to embody two fundamental processes: (temporal) integration and feedback" (Noorani and Carpenter 2017 p6).

Noorani and Carpenter (2017) noted the main types of "stopping"

i) Long-term, global

a) Background, "default" stopping - stopping the default response (eg: reflex) when not appropriate.

b) Active immobilisation - eg: "freezing" by prey stalked by predators.

c) Passive immobilisation - eg: muscle relaxation during sleep.

ii) Short-term, specific

a) Determination of movement duration - internal mechanisms outside of conscious control that terminate a movement (ie: sensing that a goal has been reached).

b) Externally driven stopping - cancelling an intended movement at a conscious level. For example, the Go/No-go task involves pressing a button when a particular stimulus appears on a computer screen (eg: square), but not when another stimulus appears (eg: circle). The response to press the button has to be cancelled when a circle appears.

c) Internally driven stopping - the brain cancels unwanted responses. In the Wheeless task, for example, a target on a screen moves to the right side, say, and then very quickly to the left side where it stays. The response to the right side movement is cancelled as it is unnecessary.

d) Sequence termination - stopping a sequence of movements (a combination of ii (b) and (c)).

2.3. SCENE ANALYSIS

As an individual walks through a busy street while daydreaming, the brain is converting the mixture of sensory inputs into "coherent scenes so as to perceive meaningful objects and guide navigation, and also to imagine visual and auditory scenes and distinguish them from 'real' scenes" (Kondo et al 2017 p1). The process of distinguishing individual sound sources is "auditory scene analysis" (Bregman 1990). In other words, is a sequence of sounds from one source or from multiple sources?

"Visual scene analysis" (Marr 1982) is where "the visual system has to partition a visual scene into one or more objects and a background, determining which elements in the scene 'belong' to which object or to the background" (Kondo et al 2017 p1).

Sensory information processing (based on the "bottom-up" approach) is seen as a series of stages where more detail is added, whereas the "top-down" approach takes account of factors like attention and expectations. "The relative influence of bottom-up and top-down processes and the way that they interact remain unclear" (Kondo et al 2017 p2).

The physiology of "scene analysis" includes scene-selective visual areas in the cortex that neuroimaging has shown are active in humans in response to viewing natural scenes but not objects or faces (Epstein 2014). But "scene perception is more than just the activation of higher-level scene-selection regions in the brain" (Kondo et al 2017 p2).

The combination of sensory information has been found in auditory information being sent to the primary visual cortex (Ghazanfar and Schroeder 2006). Petro et al (2017) argued that this input helps in "counter-factual processing" "by triggering imagery, dreaming and mind wandering, when the visual image is completely different from the visual scene that is actually present. Such processing may be important for allowing people to play out scenarios in their minds to test consequences and make decisions" (Kondo et al 2017 p2).

"Salience" plays a role in scene analysis. This is an aspect of the scene that is important (eg: strong

physical features or relevancy to goals). In the first case, for example, a fast moving object towards the individual, or food for a hungry individual in the case of relevancy to goals. Several brain areas seem to be involved in the creation of a "salience map" of a scene (Veale et al 2017).

2.4. PHANTOM LIMB PAIN

Phantom limb pain (PLP) is where amputees experience intense pain in the missing limb. As many as 98% of amputees experience warm or cold feeling, itchiness or pressure, for instance, after losing the limb, and 80% of them suffer from PLP, varying between throbbing, shooting and twisting pain, for example (Anderson-Barnes et al 2009)

Though the experience of PLP varies, amputees have a "proprioceptive sense" [11] of the missing limb in common (Anderson-Barnes et al 2009).

Jensen et al (1985) found that three-quarters of amputees experienced pain in the same pre- and post-amputation positions. Anderson-Barnes et al (2009) saw this finding as evidence for their theory that PLP is a phenomenon of "proprioceptive memory" - ie: "after an amputation occurs, proprioceptive memories remain embedded within the subconscious and are still easily accessible. The brain mechanisms have not changed; thus memories are still intact and proprioception occurs as it did prior to amputation. When a limb has been amputated, the visual system recognises the absence of the limb, but the proprioceptive system does not" (Anderson_barnes et al 2009 p556).

Anderson-Barnes et al (2009) provided further evidence:

a) Some amputees report volitional control over the amputated limb.

b) A feeling that the amputated limb is fixed or frozen in the position it was before its loss.

c) Other patients under general anaesthesia reported their limb in the position before becoming unconscious, though it was moved during the operation.

[11] Proprioception is the internal awareness of the body in space including the limb position and in relation to each other (Anderson-Barnes et al 2009). "Proprioception is frequently overlooked as a sense, perhaps because it is so automatic. For example, a person's proprioceptive senses are utilised while driving to work and eating dinner; without proprioception, a person would not be able to look at the road while driving because his eyes would need to be focused on putting his feet on the pedals and placing his hands on the steering wheel and gear shift" (Anderson-Barnes et al 2009 pp555-556).

2.5. APPENDIX 2A - UMEDA ET AL (2016)

There is event-related prospective memory (PM) where a particular event triggers recall of an action (eg: seeing a postbox reminds the individual to post a letter), and time-based PM, which involves remembering to perform a particular action at a certain time (eg: take medication at 6 pm) (Umeda et al 2016).

Umeda et al (2016) recruited thirty-eight undergraduates in Japan for their independent-participants design experiment. Participants were presented with letters quickly and instructions to press one of two keys depending on the sequence (eg: same as previous letter or not), while pressing a third key if a vowel appeared. This was the PM task. Half the participants received full instructions about the task (known condition), and the other half did not (unknown condition). Separately, interoceptive accuracy was assessed by asking participants to count the number of times they felt their heart beat during a specific period.

A significant positive correlation was found between interoceptive accuracy and PM task performance. Individuals in the known condition with a better PM performance had a greater increase in heartbeat in response to vowels, and it is sensitivity to the heartbeat change that the researchers believed explained the findings. This fits with the idea of "cue sensitivity" and event-related PM (West and Craik 1999). So, for example, seeing a postbox increases the heartbeat, and individuals who recognise this cue as a trigger to remember to post a letter will successfully perform that action.

2.6. APPENDIX 2B - EMOTION RECOGNITION

The polyvagal theory (Porges 2001) proposes that the recognition of emotions in others' faces is linked to the vagus nerve, which passes from the brain via the neck to the abdomen, and is a key part of the parasympathetic nervous system (Colzato et al 2017).

The recognition of emotions is often tested by the "Reading the Mind in the Eyes" (RMET) (Baron-Cohen et al 2001), which requires recognition of emotion from a picture of the eye region of the face. In studies, heart rate, which is used as a measure of the activity of the vagus nerve, positively correlates with performance on the RMET (eg: Quintana et al 2012).

Colzato et al (2017) performed an experiment to show this relationship with thirty-eight undergraduates at a university in the Netherlands. Individuals experienced transcutaneous (through the skin) vagus nerve stimulation

(tVNS) and a sham condition while naming the emotions in thirty-six black and white photographs of human eyes (RMET). Participants were significantly better at recognising emotions in the easy items with tVNS than sham tVNS, but there was no difference for the difficult items.

2.7. APPENDIX 2C - GARFINKEL ET AL (2016)

Garfinkel et al (2016) recruited forty-two volunteers at a university in southern England for their study of interoceptive awareness and anxiety. Interoceptive accuracy for cardiac signals was assessed by the heartbeat detection task. This is a common measure of interoceptive accuracy, and involves the individual judging whether a tone, say, sounded at the same time as a heartbeat or not. Half the tones were presented at the same time as the heartbeat (synchronous condition) and half not (asynchronous condition).

Respiratory sensitivity was measured with the respiratory resistance threshold task (Harver et al 1993), which involves breathing into a machine that has different levels of resistance. The participants had to say whether there was resistance or not [12]. Anxiety was measured by a standard self-reported questionnaire.

There was a significant negative correlation between heartbeat detection task score and anxiety score (ie: high accuracy of heartbeat and low anxiety, and vice versa), while poor respiratory accuracy (ie: unable to distinguish between resistance or not) was associated with higher anxiety scores.

2.8. REFERENCES

Anderson, M (2014) After Phrenology. Neural Reuse and the Interactive Brain Cambridge, MA: MIT Press

Anderson-Barnes, A.C et al (2009) Phantom limb pain - a phenomenon of proprioceptive memory? Medical Hypotheses 73, 555-558

Babo-Rebelo, M et al (2016) Is the cardiac monitoring function related to the self in both the default network and right anterior insula? Philosophical Transactions of Royal Society B 371, 20160004

Baron-Cohen, S et al (2001) The "reading the mind in the eyes" test revised version: A study with normal adults, and adults with Asperger syndrome or high-functioning autism Journal of Child Psychology and Psychiatry 42, 241-251

Bregman, A.S (1990) Auditory Scene Analysis: The Perceptual Organisation of Sound Cambridge: MIT Press

[12] Tactile acuity (ie: whether an individual was sensitive to touch) was also measured, but it had no relationship to anxiety.

Colzato, L.S et al (2017) Darwin revisited: The vagus nerve is a causal element in controlling recognition of other's emotions Cortex 92, 95-102

Dunn, B.D et al (2010) Listening to your heart. How interoception shapes emotional experience and intuitive decision-making Psychological Science 21, 1835-1844

Epstein, R.A (2014) Neural systems for visual scene recognition. In Kveraga, K & Bar, M (eds) Scene Vision: Making Sense of What We See Cambridge: MIT Press

Garfinkel, S.N et al (2016) Interoceptive dimensions across cardiac and respiratory axes Philosophical Transactions of Royal Society B 371, 20160014

Gentili, M.E et al (2002) Clinical perception of phantom limb sensation in patients with brachial plexis block European Journal of Anaestesiology 19, 105-108

Ghazanfar, A.A & Schroeder, E (2006) Is neocortex essentially multi-sensory? Trends in Cognitive Science 10, 278-285

Harver, A et al (1993) Signal-detection outcomes on heartbeat and respiratory resistance detection tasks in male and female subjects Psychophysiology 30, 223-230

Jensen, T.S et al (1985) Immediate and long-term phantom pain in amputees: Incidence, clinical characteristics and relationship to pre-amputation pain Pain 21, 267-278

Kondo, H.M et al (2017) Auditory and visual scene analysis: An overview Philosophical Transactions of the Royal Society B 372, 20160099

Marr, D (1982) Vision: A Computational Investigation into the Human Representation and Processing of Visual Information New York: Freeman

Noorani, I & Carpenter, R.H.S (2017) Not moving: The fundamental but neglected motor function Philosophical Transactions of Royal Society B 372, 20160190

Petro, L.S et al (2017) Contextual modulation of primary visual cortex by auditory signals Philosophical Transactions of the Royal Society B 372, 20160104

Porges, S.W (2001) The polyvocal theory: Phylogenetic substrates of a social nervous system International Journal of Psychophysiology 42, 2, 123-146

Quintana, D.S et al (2012) Heart rate variability is associated with emotion recognition: Direct evidence for a relationship between the autonomic nervous system and social cognition International Journal of Psychophysiology 86, 2, 168-172

Tsakiris, M & Critchley, H (2016) Interoception beyond homeostatis: Affect, cognition and mental health Philosophical Transactions of Royal Society B 371, 20160002

Umeda, S et al (2016) Prospective memory mediated by interoceptive accuracy: A psychosocial approach Philosophical Transactions of Royal Society B 371, 20160005

Veale, R et al (2017) How is visual salience computed in the brain? Insight from behaviour, neurobiology and modelling Philosophical Transactions of the Royal Society B 372, 20160113

West, R & Criak, F.I (1999) Age-related decline in prospective memory: The roles of cue accessibility and cue sensitivity Psychology and Aging 14, 264-272

Wiens, S et al (2000) Heartbeat detection and the experience of emotions Cognition and Emotion 14, 417-427