



# TRANSITIONAL STATES

Hormones at the Crossroads  
of Art and Science

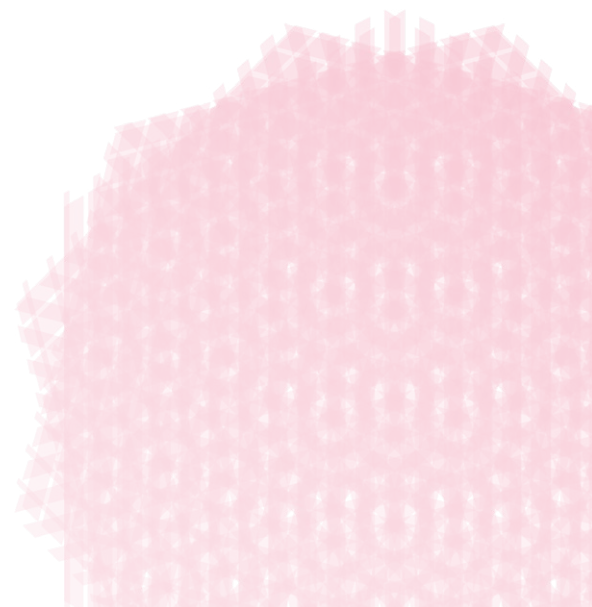
An international video art exhibition and  
programme of public events





# Transitional States: Hormones at the Crossroads of Art and Science

Chiara Beccalossi



# Acknowledgements

A large number of people have been involved in this international programme and have offered their time, ideas and enthusiasm. Many of them are old friends while others became friends because of *Transitional States*.

First of all, a huge thank you to Giulia Casalini and Diana Georgiou: as time went by and this programme grew bigger and bigger, you have been unstinting with your time. LGBTIQ and feminist activists such as Simona Marchesi and Miquel Misse in Spain and Porpora Marcasciano and Mario Di Martino (Movimento Identità Transessuale) in Italy; academic colleagues such as Isabel Davis and Jo Winning (Centre for Medical Humanities, Birkbeck University of London); and the University of Lincoln have helped me secure venues for the video art exhibitions and organise the public discussions.

Students at the University of Lincoln have shown enthusiasm for such an ambitious undertaking and constantly reminded me of the urgent need to challenge gender stereotypes and discrimination. Special thanks go to Brooke Bleazard and Chloe Unsworth. The Centre de Cultura Contemporània de Barcelona (CCCC) in Spain, the LABS Gallery (Bologna) in Italy, the Project Space Plus at the University of Lincoln, and the Peltz Gallery at Birkbeck University of London in the UK, have all been generous in hosting the exhibition and in their ability to appreciate the potential of the entire programme.

It has been a pleasure to learn and be inspired by all the *Transitional States* artists, and special thanks are due to those who specifically created a new work for this video art exhibition. I am also grateful to all the speakers and moderators at the public discussions and other events, some of whom have also contributed to this catalogue. Your diverse contributions have made *Transitional States* come alive. Without you I could never have hoped to create so exciting and rewarding a programme.

I could not have done all of this without Natalie Angel (Director, Server PR) and her advice and assistance in numerous areas, from web content and social media to press releases and the development of this catalogue. Chloe Unsworth has done a

sterling job as our public engagement (and multi-tasking) officer and we would not have a website, logo or visual identity without the inspiring art direction of Silvia Bertolissi. I cannot say how grateful I am to each of you for the time you have dedicated to this programme, often at short notice, and for your professionalism and patience. Simone Pesci has done an outstanding job as our catalogue designer and Martin Thom has helped smooth many a passage in his role as copy editor.

The University of Lincoln has wholeheartedly supported this programme, and helped me to navigate my way through a host of potential difficulties. I am grateful in particular to Mary Stuart and Matthew Cragoe for recognising the contribution *Transitional States* could make to the lives of students and the local community, and Joy Knight has helped immeasurably with the administration for the programme.

It has been a pleasure to work with Claire Bell, Paulina Babuchowska and Christabel Edwards, who genuinely believe in what *Transitional States* is aiming to achieve. I will be forever grateful to you for your help in making the events programme at Lincoln bigger and better, and for providing practical support in so many ways. I would also like to thank the Eleanor Glanville Centre for the additional financial and practical support for the programme of events at the University of Lincoln.

I have also been fortunate in my many fantastic colleagues in the School of History and Heritage at the University of Lincoln, who have seen me through the ups and downs of creating the *Transitional States* programme. All I can say is thank you so much for all your advice, guidance and support.

Last, but certainly not least, I would like to thank the Wellcome Trust (Ref. no.: 108687/Z/15/Z). Without this institution's financial support, I would not have been able to deliver *Transitional States*. The Wellcome Trust is a beacon for academics and supports bold research in the medical humanities. So thank you very much for valuing fields such as the history of sexuality and gender studies, for encouraging your grant holders to be imaginative, and for making it all possible.





## Exhibition locations and dates

### Project Space Plus

#### **Lincoln, UK**

1 – 27 February 2018

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### Peltz Gallery

#### **London, UK**

10 May – 11 June 2018

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### Centre de Cultura Contemporània de Barcelona (CCCB)

#### **Barcelona, Spain**

4 – 28 October 2018

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### LABS Gallery Arte Contemporanea

#### **Bologna, Italy**

22 November – 15 December 2018

# Transitional States: Hormones at the Intersection of Art, Life and Politics

Dr Chiara Beccalossi

Hormone research and treatments have had a major impact on ideas about the body and health, sexual attitudes and behaviours, human freedom, and theories of race and eugenics. Throughout the twentieth century and even today, hormone treatments have brought enormous benefits to human beings, but their many uses have also had some contradictory implications.

The production of synthetic hormones has been considered as either one of the most revolutionary innovations in medicine or as one of the greatest experiments ever performed on humans, especially women. These two views often bring positive or negative connotations and there are historical reasons for the existence of such contrasting approaches to their uses. Hormone treatments were believed to treat almost every single medical problem in the interwar period: they were employed to cure everything from period pains and sexual dysfunction (such as impotence), to fatigue and menopause; they were used to alleviate mental disorders and even to rejuvenate men. Understanding how hormones function and could be used was crucial for the development of the contraceptive pill, an innovation that radically changed women's sexual behaviours and freedoms in the second half of the twentieth century.

Yet scholars and feminists have also highlighted how medical scientists and pharmaceutical companies misused hormones when promoting hormone therapies. When exposing the menopause pharmaceutical industry, the American journalist and co-founder of the National Women's Health Network, Barbara Seaman, stressed that hormone therapies have been the most dangerous experiment ever performed on women and that oestrogen therapy often causes more problems than it cures.<sup>1</sup>

Women are not the only ones to have a problematic relationship with hormone treatments. In their use to enhance both sexual and sporting performance, hormones

have both advocates and critics, and homosexuals, trans men and women and intersex individuals have also been impacted in a similarly controversial way. After 1910, hormone treatments were administered to homosexuals as a cure, in ways that are now considered to be a violation of human rights. Hormone therapies have also been employed to 'normalise' individuals, such as intersex children, who do not conform to conventions of biological sex. In this way, they have contributed to the reinforcement of cultural stereotypes, such as, what it means to be a woman or a man, and have served to consolidate artificial divisions between genders.

However, since the 1950s, trans men and women have increasingly used hormones in a more positive fashion in order to transition and to modify their bodies. While hormone treatments have undeniably been misused to repress non-normative sexual desires and to reinforce conventional ideas of biological sex, they have also changed the perception of gender, rendering it malleable and open to transformation. The philosopher and curator Paul B. Preciado has exposed many of these contradictions in their influential book, *Testo Junkie*.<sup>2</sup>

A huge proportion of women now take the contraceptive pill, many women try to counteract the effects of menopause with hormone replacement therapy, and trans men and women openly and freely make use of synthetic hormones. Testosterone is also increasingly used to treat low sexual desire in women. This does not even take into account the myriad other ways hormones are employed. However, beyond the debate about the benefits or harm resulting from the use of artificially produced hormones, it is clear that they have done much to medicalise our society.

I was drawn to the history of the use and abuse of artificial hormone because of the contradictory effects hormones have had. Their use to 'normalise' individuals and to impose gender binary divisions has indeed

been extremely repressive. This said, the administering of artificial hormones has offered an almost unimaginable liberation by allowing us to modify our body's chemical composition and to create space for individual experimentation and expressions that challenge society's norms.

In 2015 I was awarded a Wellcome Trust grant to carry out historical research on how medical sexual knowledge and hormone research had developed hand in hand in the twentieth century. In 2016 the Wellcome Trust also offered me the opportunity to develop a public programme to raise awareness about the impact hormone therapies have on society and this led me to envision *Transitional States*.

*Transitional States* has offered me the chance to step beyond the academic world, to generate new opportunities for creative work and discussions with people working in different areas and thereby to consolidate national and international networks that promote public debates about how hormones are used. I wanted to use art to reach audiences in a more immediate and visual way than scholarly debates tend to do, and this by putting together a project where art and science could meet in order to encourage new ways of thinking about medical technologies.

The idea of a touring video art exhibition complemented by public discussions took shape over several meetings I had in 2015 with Giulia Casalini and Diana Georgiou (Arts Feminism Queer), who have since closely overseen the artistic aspects of *Transitional States* and guided me through the world of contemporary art. We chose video art not

only to embody the very idea of movement and therefore transitioning, but also to document how hormones can affect lives in a way that is accessible to a range of different audiences. Artists, feminist LGBTIQ and activists from all over the world have responded to our open call, telling their stories through diverse narrative and technical methods.

The first part of this *Transitional States* catalogue offers descriptions of the works featured in the touring video art exhibition and short biographies of all the artists selected. The second part offers brief contributions from some of the speakers taking part in the public discussions as they address the theme of hormones from their widely varying perspectives and experiences. As this is an international video exhibition moving from the UK to Spain and Italy, we have decided to include one contribution in Spanish and another in Italian to acknowledge our Spanish and Italian artists, writers, collaborators and audiences.

Creating this programme has been a profoundly enriching journey, offering me experiences and knowledge that my academic research would never have allowed me to gain. I have also been privileged to meet some incredibly beautiful and interesting people and to explore previously uncharted territories.

With this exhibition and the associated events, I hope that audiences will be challenged and moved by the inspiring contributions of the many artists, activists, scholars, authors, and medical professionals who have taken part in *Transitional States*.

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# **The Video Art Exhibition**



# Documenting (Im)material Forces

Giulia Casalini and Diana Georgiou

*Hormones direct human action and response in fields from reflection to stress, growth to aggression, as well as sex and reproduction; there is no field of human action that does not involve hormonal messages.*

Teresa Brennan<sup>1</sup>

The late feminist philosopher and sociopolitical theorist Teresa Brennan wrote persuasively about the (im)material forces that govern us. She argued that affects (what we commonly call love, anger, hate and so forth) are material energies that can be communicated from one person to another, even in the absence of language or intentional action. In fact, affects are so psychophysical and visceral that they can be considered the 'stuff' that either compels us to action or depletes our energies.

At the intersections of psychoanalytic feminism and affect, Brennan took an exceptional risk in theorising the psyche through an unorthodox recourse to biological and scientific data. She turned to endocrinology to support her hypothesis that affects are forms of bodily communication – transmitted through hormones and picked up by our senses – which can shape both our psychic and physical states. In fact, Brennan went as far as to claim that 'research on hormones supports the realisation that the environment, especially the environment in the form of other people, changes human endocrinology, not the other way around.'<sup>2</sup>

As curators and researchers, we have both worked extensively in the theoretical, aesthetic and activist field of 'body politics' – specifically of bodies marked by gender and sexuality. What we have learnt from the multifarious and transdisciplinary explorations of artists working in these fields, is that genders and sexualities, and the stereotypes they foster, can be enacted, reinterpreted, repeated, subverted, dismantled, appropriated, demystified and transgressed beyond our social imaginaries. Bodies are not only the registers of psychic and social inscription but they are, at least momentarily, the malleable, performative and expressive means to communicate ideas or to contest deeply entrenched ones. But what do we know of bodies on a deeply

biological level? How do we begin to think creatively with the entangled psychophysical matter of bodies when they are affected by hormonal changes?

Queers and feminists, sexual misfits, subversive mothers and non-binary subjects, have struggled and continue to struggle with biological explanations of what their bodies are permitted to do, to become and to desire. Had our struggles not been so burdened with the dismal history of scientific classification, medicalisation and control of our bodies according to what are now thoroughly contested norms, perhaps we would have more readily embraced the mutually informative relationship between art and science for our own ventures. Perhaps it is also the duty of science to take greater risks, as Brennan did, and to become attentive to what is being communicated by the bodies that are being studied.

A crucial aim of the video art exhibition *Transitional States* was to open up the science of endocrinology to the intersections of art and lived experience. We wanted to receive diverse responses from people who did not necessarily have to be either artists or scientists to address the complex ways in which hormones affect our daily lives. To achieve a wider participation and a fairer selection process, in December 2016 we launched an international open call for works to be included in the show and received over 200 submissions from around the world. We first long-listed all the applications with Chiara Beccalossi and invited a jury composed of Carlos Motta (artist, New York), Lois Keidan (director at the Live Art Development Agency, London), Laura Leuzzi (art historian, Dundee) and Issey Osman (director and producer, London) to short-list the final selection.

The travelling exhibition showcases 14 works by artists, performers, writers and activists from five continents. The videos make use of

various techniques including 3D animation, stop-motion and infrared video, and a range of formats such as performance for camera, music video, documentary, TV show and online feeds. Remarkably, the majority of the selected videos were also specifically made as a response to the open call.

Drawing upon very different contexts (both geographical and personal), the works by Zaya Barroso and Holly Slingsby use rituals as a way to highlight the interconnection of our bodies with nature. Walking on an empty beach in Uruguay, Zaya proudly sings about her rebirth: how she discovered a new self through hormone therapy, self-healing, holistic practices and the support of a compassionate community. The painting of her skin with spherical motifs is an attempt to illustrate the invisible hormonal forces that have shaped her new identity.

Holly Slingsby's approach to contemporary rituals relies instead on the use and appropriation of archaic symbols of fertility. By interweaving scenes from the British countryside with actions shot during her performance for video, the artist personifies both the Germanic goddess Oestre, and a contemporary woman going through hormonal treatment for IVF (*in vitro* fertilisation).

The film *Turned On/Turned Off* by Sarah Homewood also addresses women's fertility by staging speculative scenarios of heterosexual couples that plan to use remote-controlled contraceptive microchips in their relationships.<sup>3</sup> The protagonist gives her male partner a remote control as a testimony to her love. The decision to opt for childbearing is then not only controlled by the female protagonist but, in this case, heavily depends on her male counterpart.

Aside from reproductive functions, hormones play a major role in our sexual lives by increasing or decreasing our libido. Award-winning short film, *Immaginare T*, portrays the lives of two protagonists who use testosterone gel and injections to redefine both their gender and sexual experiences. The film captures contrasting opinions and convergent practices within the queer community in relation to the use of testosterone.

Libidinal desires also inform the video work of Orlando Myxx. His video presents slow

and repetitive actions that feature some elements against a black background: a box, two hands, a wrist, a masculine torso and the sound of a voice experiencing pleasure. The sexual intensity is heightened through the use of sounds such as repetitive gasps and close-ups, as well as the throbbing veins of his wrist. The hand movements against a black backdrop are reminiscent of the semiotic gestures depicted in Ketty La Rocca's video works from the 1970s. As in a magic trick, the video ends by revealing the 'secret' contained in the box: a testosterone phial.

From the perspective of a woman's body going through menopause, Marne Lucas utilises infra-red technology to capture thermal variations within the body. The video, as the artist describes it, is an 'ode to menopause' and – by showing cold as darker shades and heat as white ones – it reveals the luminous energy of a woman who sensually bathes and lounges on a rocky beach.

Women and ageing are themes also explored in the works of the Argentinian group Camila Levy Daniel, Leyla de la Hoz and Pedro Giacomolli. In *La Huella que Mira*, they employ high definition technology to capture extreme close-ups of the bodies of three elderly women. Given the controversial branding of HRT (hormone replacement therapy) as a treatment that slows down the effects of ageing on the skin, it is worth considering how women's bodies are often subjected to multiple risks in vain attempts to stop time in its tracks.

Hormone therapies for gender reassignment are proving to be much more successful in producing desired expectations than HRT for women has been. However, the process is rarely straightforward – both personally and in terms of how one's journey will be strongly directed by local healthcare administrations and legal frameworks. From an activist and filmmaking perspective, the work of Fox and Owl looks to both the complexities and the beauty of gender transitioning. In the guise of a manifesto, this film empowers trans people to celebrate the physical features that differentiate them from stereotypical ideas of gender as a binary female-male category.

Key to Gérard Chauvin and Lanah Shai's video *Mutation* is the empowerment that comes with taking ownership of one's gender

identity. Their video undertakes a visual and textual exploration of bio-power read on the surface of Lanah Shai's body.

However, hormones are not restricted to the human organism. As Juliet Jacques and Ker Wallwork's 16mm film reveals, hormones such as oestrogen are present in many of the products that we consume each and every day. Focusing on the use of oestrogen from a contemporary transgender perspective, the film also retraces the historical stigma of bearing overly 'feminine' traits that led to the psychopathologising of both homosexuality and 'gender dysphoria'.

Similarly, but from the perspective of a cis-woman diagnosed with early stage breast cancer, Jennie Pedley's video also explores the hormones found in the chemicals we use and the food we consume to question whether these can be linked to the greater incidence of cancer.

Employing a radically queer methodology, in *Housewives Making Drugs* the trio Mary Maggic, Mango Chijo Tree and The Jayder propose a DIY method for manufacturing hormones. Modelled on a fictional TV cooking show, the video features two presenters who teach their delighted audience how to produce their own hormones at home. Despite its witty and humorous approach, the video also calls attention to the political and economic issues underlying the sourcing of hormone treatments in countries that do not provide free health care (such as the US).

The radical potential of self-administering hormones, in this case testosterone, is also portrayed in Raju Rage's video, *Techno Gender: 'Pyramid Revealed by a Sandstorm'*. Interlacing text, audio and moving image, the artist animates a collage of experience and emotion as a testimony to what it means, and what it feels like, to take control of one's body and gender.

Finally, Marianna Simnett's video engages with the use of non-hormonal treatments such as Botox to induce the same results that testosterone would have on the voice. In the video *The Needle and the Larynx* (which has been followed by the sequel, *Worst Gift*, in 2017), the artist presents a dark fable about a girl who demands to have her voice deepened by a surgeon. Simnett's work not only reveals the artificiality of gender and

its performance, but captures the murky gulf between reality and fiction.

We expect that *Transitional States* will visually arrest some aspects of our (im)material experience of hormones in all their diverse forms (endogenous, environmental, pharmaceutical) and the effects they have on both the body and the mind, as well as their political repercussions. We also anticipate that the works will unfold important questions for our current times: how does contemporary society influence and regulate gender identity? How have women's bodies been medicalised in relation to birth control, menopause and ageing? What are the effects of hormone uses on emotions, sensations, sexual expression and desire?

We hope that audiences will enjoy this poetic, informative and deeply personal journey with us and the artists that we have had the immense pleasure to learn from. While research on hormones should be at the service of bettering our lives, some of the works exhibited raise awareness as to how this has not always been the case. Nevertheless, across the spectrum of genders and sexualities, we are making progress when we think through the intersections of art and science.

In our introduction we began with Brennan's radical idea that our environment as well as other people can bring about changes in our hormonal make-up. That is, the idea that affects and hormonal flows are not endogenous to the self but can affect us from without, and so much so that we physically and psychically change. Could it be that (im)material affects such as love, positive attention, curiosity and creativity can inject a freshness into science? Perhaps this exhibition may go some way towards altering our tendency to try and control the forces that govern us, by providing us with the opportunity to engage with the creative explorations of those who make sense of the world through less avowedly scientific means. As Brennan once noted, 'What is understood can be changed, whether it is through the understanding of its material nature or the changes wrought within that nature as it is understood.'<sup>4</sup>

Camila Levy Daniel, Leyla de la Hoz and Pedro Giacomolli

# La Huella que Mira

[*The Looking Trace*], 2015

Video installation, colour/sound

17 mins 4 secs

Performance: Alicia María de la Vega, Esther Nélica Gutierrez and Norma Giovanacci.

A portrait suspended in time of three elderly women. The highly suggestive soundscape, together with slow-motion portraiture, evokes the stories of these women's bodies. The women's faces and their physical attributes are documented through meditative close-up angles. Throughout the video, there is a sense that the artists are attempting to capture the effects of ageing and to subtly convey processes that take place 'beneath the skin': emotions, life experiences, and the physiological effects hormonal changes produce.

Given the expectation that women should conform to the mythical standards of the anti-ageing industry, such representations serve to counter the stigma around the effects of time on our bodies.

The video premiered at Cinefábrica CheLA (Buenos Aires, Argentina, 2015) and won the Digital Art Prize at the Bucharest International Dance Film Festival (Bucharest, Romania, 2016).

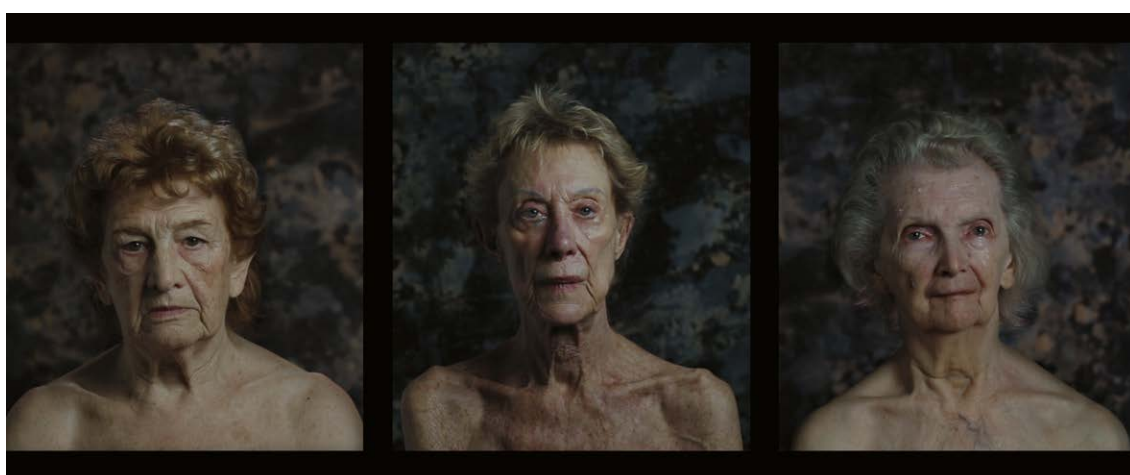
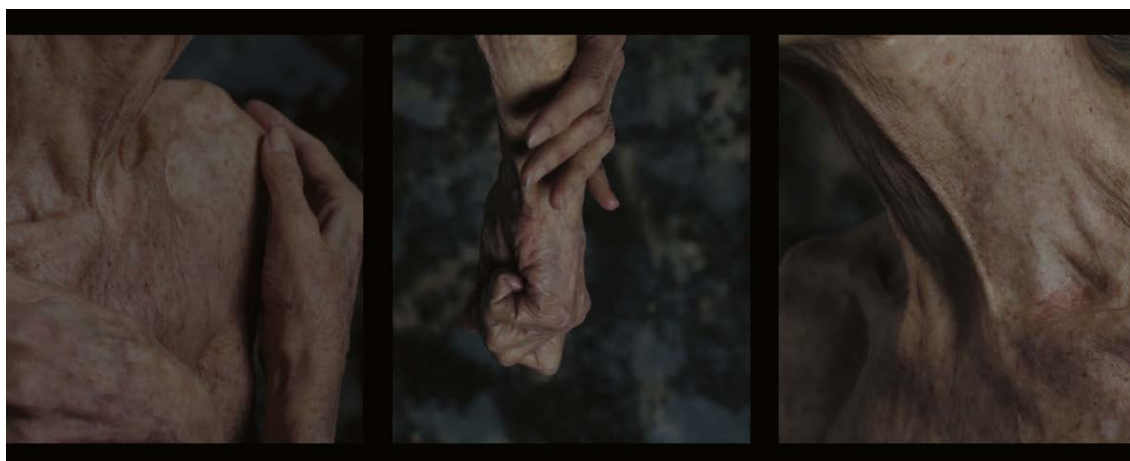
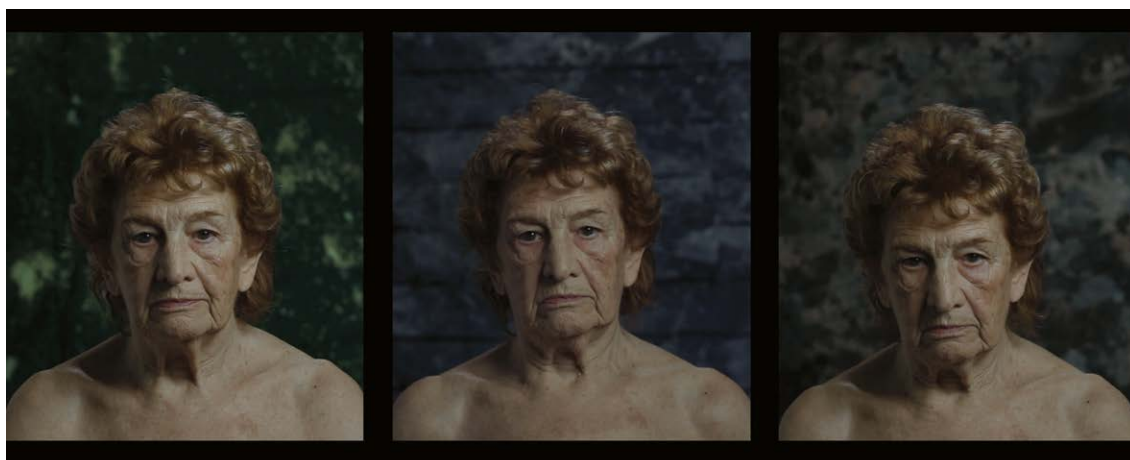
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## Biography

Camila Levy Daniel was born in Argentina and holds a degree in Image and Sound Design from the University of Buenos Aires.

Leyla de la Hoz was born in Colombia and has worked as a sound editor on many feature films, including the Oscar-nominated *Embrace of the Serpent* (2015).

Pedro Giacomolli was born in Brazil and graduated from the University of Buenos Aires with a degree in Image and Sound Design.



Camila Levy Daniel, Leyla de la Hoz  
and Pedro Giacomolli  
***La Huella que Mira*, 2015**  
Stills from video. Copyright the artists.



Fox and Owl

# The Things that Make Us...

2017

Film, digital, black and white/sound

2 mins 58 secs

Photography: Sharon Kilgannon

Music: Maki Yamazaki

In this short film, the artists Fox and Owl describe the processes of transitioning and the effects that hormone therapies have, and do not have, on the human body. Through scenes taken from their domestic and intimate life, the couple describe how hormones have transformed them on a physical and psychological level. At the same time, by highlighting those things that hormones cannot change, Fox and Owl

encourage viewers to celebrate trans identity beyond female-male binaries, by seeing the beauty in the physical aspects of bodies that do not conform to stereotypical standards. The hope is to empower trans people to love all those 'things that make us' different and unique individuals. This film is a new work, created for *Transitional States*.

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## Biography

Fox Fisher is an artist, film-maker and campaigner. After taking part in C4's *My Transsexual Summer*, Fisher co-created *My Genderation*, for which he made over 60 short films endorsed by the BBC, C4 and the NHS. Fox has made numerous media appearances to advocate trans issues and in 2013 they also co-founded Brighton Trans Pride. Together with Gendered Intelligence (a not-for-profit organisation supporting the trans community), they developed a trans acting course at the Royal Central School of Speech and Drama. More recently, Fox made a documentary about being non-binary in the UK, entitled *Fox & Owl Can't Get Married* (2017) and co-wrote the children's book *Are You a Boy or Are You a Girl?* (2017). Fox created screen-prints live at Tate Modern in 2014 and at the V&A in 2017 in London.

Owl (Ugla Stefanía Jónsdóttir) is an award-winning trans activist and was the official spokesperson for Trans Iceland between 2010 and 2016. Owl founded the first queer support group in the north of Iceland and soon after became a leading advisor on LGBTIQ topics in education across primary and secondary schools through The National Queer Organisation of Iceland. They have initiated and taken part in numerous projects and events with organisations across Europe, including Transgender Europe and the Council of Europe. Owl is currently on the advisory board of the media project *All About Trans* and with their partner, Fox, co-runs the film project *My Genderation*.



Fox and Owl  
***The Things That Make Us...***, 2017  
Still from film. Copyright the artists.  
Photography by Sharon Kilgannon.

G rard Chauvin and Lanah Sha 

# Mutation

2014 - 2016

Video, colour/sound

5 mins 53 secs

Direction and sound: G rard Chauvin

Text and performance: Lanah Sha 

Through a visual and poetic exploration of the transition and mutation of the body of performer Lanah Sha , the video asserts the freedom to determine one's own gender and identity beyond the constructions culture, state and religion impose on biological bodies. Trans individuals can self-administer hormones without consulting medical experts, thus challenging bio-power relations and redefining the role of reproductive and gendered bodies within society. In this video, the artist is on a quest to find their 'inner self' and uses accessories,

chosen for their stereotyped and gendered nature, to address feelings of uncertainty and doubt in relation to their own identity.

The text of the poem *Mutation* is projected on to the protagonist to signify the struggle a person in transition, or simply 'in-between', must endure in society. Thus, the body materialises as a text-body – both poetic and conceptual. The artwork has been exhibited at several art festivals in France, such as Traverse Video Festival (Toulouse, 2017); Festival Organo (Bordeaux, 2017); and ZOU! Festival (Serres, 2016).

## Biography

G rard Chauvin is a multimedia artist who works on questions of identity, gender and the body. He has participated in Kika Nicolela's project, *Exquisite Corpse Video Project* (ECVP), which has been exhibited at a range of venues including: The Local NYC (New York, US, 2017); Gallery West (Toronto, Canada, 2014); Forman's Smokehouse Gallery (London, UK, 2011); Atelier397 (S o Paulo,

Brazil, 2011); and as part of the *Wikitopia* event by Double Happiness Studio (Hong Kong, 2010).

Lanah Sha  is a French photographer, poet and rock musician who is currently transitioning from male to female. She has recently also dedicated herself to video art, performance and installation.



G rard Chauvin and Lanah Shai  
**Mutation, 2014 – 16**  
 Stills from video. Copyright the artists.

Holly Slingsby

# Eostre Eats Estradiol

2017

Video, colour/sound  
9 mins 48 secs

The video is a performance-to-camera work in which the artist explores imagery related to assisted reproductive technologies and ancient, mythical fertility goddesses. The work depicts the medical paraphernalia of pills, including estradiol, pessaries and self-administered injections, that prepare IVF (*in vitro* fertilisation) patients to carry the embryos that are fertilised in the lab. In conjunction with this, the work uses actions and props referring to fertility goddesses such as Cybele, Artemis Ephesia, Mary and Eostre, and footage shot at White Horse Hill (Uffington, UK), a site of pagan fertility rites. By proposing performative embodiment as a form of invocation, the artist creates incarnations of sacred mothers in the hope of becoming a mother herself. A voiceover of injection instructions is intercut with folkloric advice for would-be mothers. Eostre's associated objects (eggs

and rabbits) are combined with medical items formed into talismanic wreaths – an actual contemporary practice among IVF patients on social media to commemorate successful treatment. The artist combines this imagery with performative action set against a cloth of honour (a compositional device used in religious paintings, particularly of the Virgin Mary) made from a hospital curtain. The work presents the treatment rituals and belief systems surrounding assisted reproductive technology as akin to, or descended from, the ceremonial worship of primitive goddesses who governed the fecundity of both body and land. In so doing, the video adopts a tone of ambivalence as to whether scientific research is more effective than other, more devotional practices. This video is a new work, created for *Transitional States*.

## Biography

Based in Margate, Holly Slingsby's work centres on performance and the use of props, costumes and video. The artist creates images and actions that explore the impact of archaic belief systems on contemporary culture, particularly in relation to the way in which women are perceived. Recent solo exhibitions and performances include: *A Song of Ascents*, Bòlit, Centre d'Art Contemporani (Girona, Spain, 2016); *Behind the Curtain*, Tintype (London, UK, 2015); *Knotted Mass*, DKUK (London, UK, 2015). Group shows include: *Venice Agendas: The Contract*, Turner Contemporary (Margate, UK, 2017); *Duration and Dialogue*, Katzman Contemporary (Toronto, Canada, 2016);

*The Centre for Remote Possibilities*, Matt's Gallery (London, UK, 2014); *You Cannot Step Twice into the Same River*, Pump House Gallery (London, UK, 2014); *After/Hours/Drop/Box*, Spike Island (Bristol, UK, 2014) and Modern Art Oxford (Oxford, UK, 2013); Totemic Festival, Freud Museum (London, UK, 2013); *Stop, Look, Listen!* Art Licks Weekend (London, UK, 2013); *Lock in Performance Art*, ICA (London, UK, 2012); *More Soup and Tart*, Barbican (London, UK, 2011); FEM 10 Festival (Girona, Spain, 2010). In 2016 Holly was commissioned by Kunst Vardo (Norway and UK) and Fermynwoods Contemporary Art (UK) to create new works.





Holly Slingsby  
**Eostre Eats Estradiol**, 2017  
 Stills from video. Copyright the artist.

Immaginare T

# Immaginare T

[*Imagining T*], 2014

Film, digital, colour/sound

16 mins 28 secs

Direction: Naïke Anna Silipo

Screenplay, concept and performance: Lucia Lorè and Stefania Minghini Azzarello

Production: SenzaFissaDimora Teatro

A short film pitched as a dramatic narrative and based on confrontations, both imaginative and political, between the two authors, Lucia Lorè and Stefania Minghini. Reading Paul B. Preciado's *Testo Junkie* (2008) created the initial spark for the authors' account of gender identity and the use of testosterone in women and queer individuals. The two characters, Andreas and Gea, challenge their assigned gender identity by opting for a more fluid expression through the self-administering of testosterone. The film raises questions about self-determination, stereotypes and the freedom to use hormones.

The complexity of this topic, together with its under-representation within the film industry (specifically in the Italian context), rendered this short film even more urgent at the time of its making. The fact-based evidence leading to the film originated through meetings and in-depth discussion with various female-to-male and transgender communities across Europe. The short film has appeared at LGBT film festivals throughout Germany, Holland, India, Italy, Spain, the US and Venezuela.

## Biography

*Immaginare T* was created by Lucia Lorè, Naïke Anna Silipo and Stefania Minghini Azzarello.

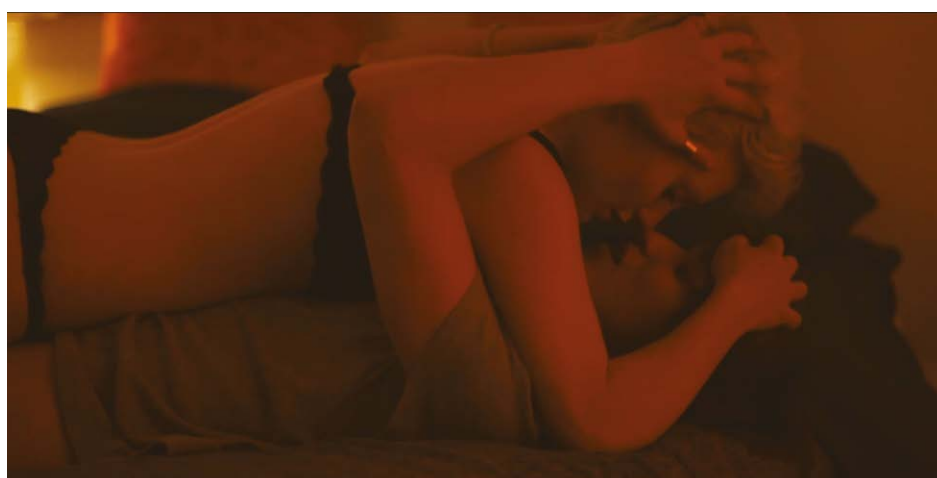
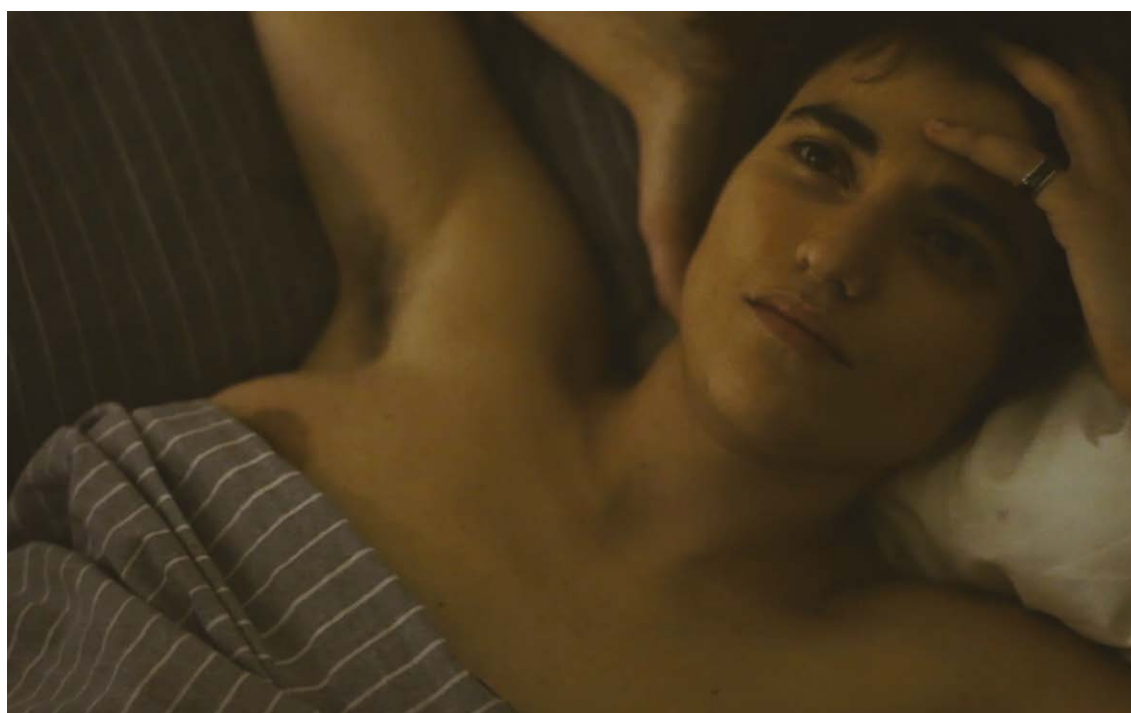
Lucia and Naïke founded the production company SenzaFissaDimora Teatro with Patrizia Bollini in Italy in 2012. The following year the company produced two acclaimed works: *Three Sisters*, winner of the Naples Fringe Festival, and *Only God Knows*, Scenario Award semi-finalist.

Naïke graduated from the Silvio d'Amico National Academy of Dramatic Arts in Rome and her second film, *Io Non Sono Grande*, was a finalist in the I LOVE GAI – Young Italian Authors category at the Venice International Film Festival in 2016.

Lucia graduated in Cultural Heritage from the University of Salento, Italy. In 2012 she embarked on a career in drama, winning the Young Actors' grant from the Paolo Grassi

Civic Academy in Milan. In 2016 she was chosen by Ivana Chubbuck as the winner of the Professional Actors' grant at the Piccolo Eliseo Theatre in Rome. *Immaginare T* is her debut work as a scriptwriter.

Stefania's focus and experience lie in the research, training and planning of educational and cultural projects in the areas of gender and women's rights. Stefania has trained and worked in theatre, the performing arts and film in several European countries. In the last three years, she has mainly focused on developing short films including *La Valigetta Rossa* (2016), and *The Second Closet* (2015). *Immaginare T* marked her debut screenplay for film.



Immaginare T  
**Immaginare T**, 2014  
 Stills from film. Copyright the artists.



Jennie Pedley

# Breast (I)

2017

Video, sound/colour

3 mins 40 secs

Music: Mollusc Music

This video depicts the travails of a body diagnosed with early stage breast cancer. Jennie Pedley draws a correlation between cancer and the presence of hormone-like chemicals in everyday household products and food by reflecting on Roy Hertz's statement: 'Estrogen is to cancer what fertilizer is to wheat' (c.1970). The video shows in a number of different sequences the correspondence between human and natural/artificial landscapes; pre-operative plaster casts adorn the body to commemorate its lost symmetry; diagnostic medical scans and biopsied

organs are analysed in order to understand the signs of early stage cancer; back-lit bottles tower over a prosthetic breast, spilling their contents to set it aglow with synthetic hormones; hand-drawn treelike animations extend over the naked breast, mimicking the spread of the disease. Finally, in a playful, low-tech way, the artist re-enacts the breast removal operation in her own studio, thus envisioning the rejection of surgical reconstruction as a possibility. This is a new work, created for *Transitional States*.

## Biography

Jennie Pedley is a UK-based socially engaged artist who explores issues affecting the health of the body, society and the environment. Her commissioned works include *A Is for Ageing* (2011), a silhouette film installation that combines the routines of scientists researching human ageing with those of her elderly parents; and *Memory Island* (2004), a virtual environment created for the Camden Arts Centre (London, UK) that explores the experiences of people with

cerebral palsy within a Giottoesque utopia. Jennie collaborated with deaf communities for the project *Shadow Sign* (2014), a form of British Sign Language shadow theatre. Jennie has been commissioned by a number of British organisations, including the National Trust, the Natural History Museum, Olympic Cultural Legacy with Ignite!, Paintings for Hospitals, the Wellcome Trust, and various wildlife trusts.



Jennie Pedley  
**Breast (I), 2017**  
Stills from video. Copyright the artist.



Juliet Jacques and Ker Wallwork

# Approach/Withdraw

## 2016

16mm film, colour/sound

9 mins 50 secs

Narrator: Rebecca Root

A 16mm celluloid film exploring how public understandings of oestrogen and sex hormones affect the sense of self and relationships of those who feel at odds with their assigned gender. Most of the featured material relates to the production of pharmaceutical oestrogen which can be found in contraceptive pills or hormones used by trans women. Other materials depicted contain endocrine-disrupting chemicals which are substances that behave

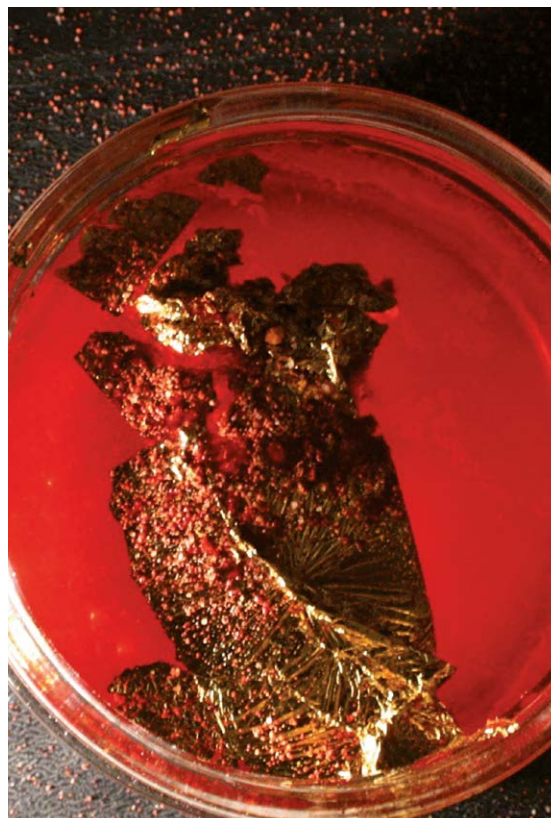
like oestrogen when they are absorbed into the body. These chemicals are also commonly found in plastics, fabric dyes and soy products. The film incorporates Christian imagery, nineteenth-century phrenological casts and photographs taken by twentieth-century sexologists in order to illustrate ways in which contemporary identities bear the marks of religious and scientific precepts. The film premiered at the BFI Flare Festival (London, UK, 2017).

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### Biography

Juliet Jacques is a writer and filmmaker based in London. She has published the books *Rayner Heppenstall: A Critical Study* (2007) and *Trans: A Memoir* (2015), which was runner-up in the Polari First LGBT Book Award in 2016. Her short fiction, essays and journalism have appeared in *Granta*, *The Guardian*, *The White Review*, *Sight & Sound*, *Frieze*, and *The London Review of Books*, among others. She is currently a resident at Somerset House Studios (London, UK) and is working on several different film projects.

Ker Wallwork is an artist, sculptor and filmmaker whose work is concerned with failures in communication. Playing with symbolism, they (mis)appropriate elements from historical art, architecture and contemporary media to suggest alternative and disordered histories. Their work is motivated by Julia Kristeva's theories of intimate revolt, while also being concerned with the development of psychic freedom and 'inner revolutions' as a defence against neoliberal ideology.



Juliet Jacques and Ker Wallwork  
**Approach/Withdraw, 2016**  
 Stills from film. Copyright the artists.

Marianna Simnett

# The Needle and the Larynx

2016

Video, colour/sound

15 mins 27 secs

This video offers a grim parable about gender, nature and artifice. The artist is in the hands of a voice surgeon as he injects her cricothyroid muscle with Botox, effectively paralysing the muscle and lowering her voice. Botox reproduces the same effects that the administering of testosterone would have on the voice and can be used as an alternative to achieve a desired low pitch. Men concerned that their voices are not low enough habitually request the procedure. In slow-motion, we watch the surgeon fill a syringe, place electrodes on the artist's neck, and plunge a needle into her throat. A multipart soundtrack, whose various roles are voiced by Marianna Simnett, recounts the fable of a girl who

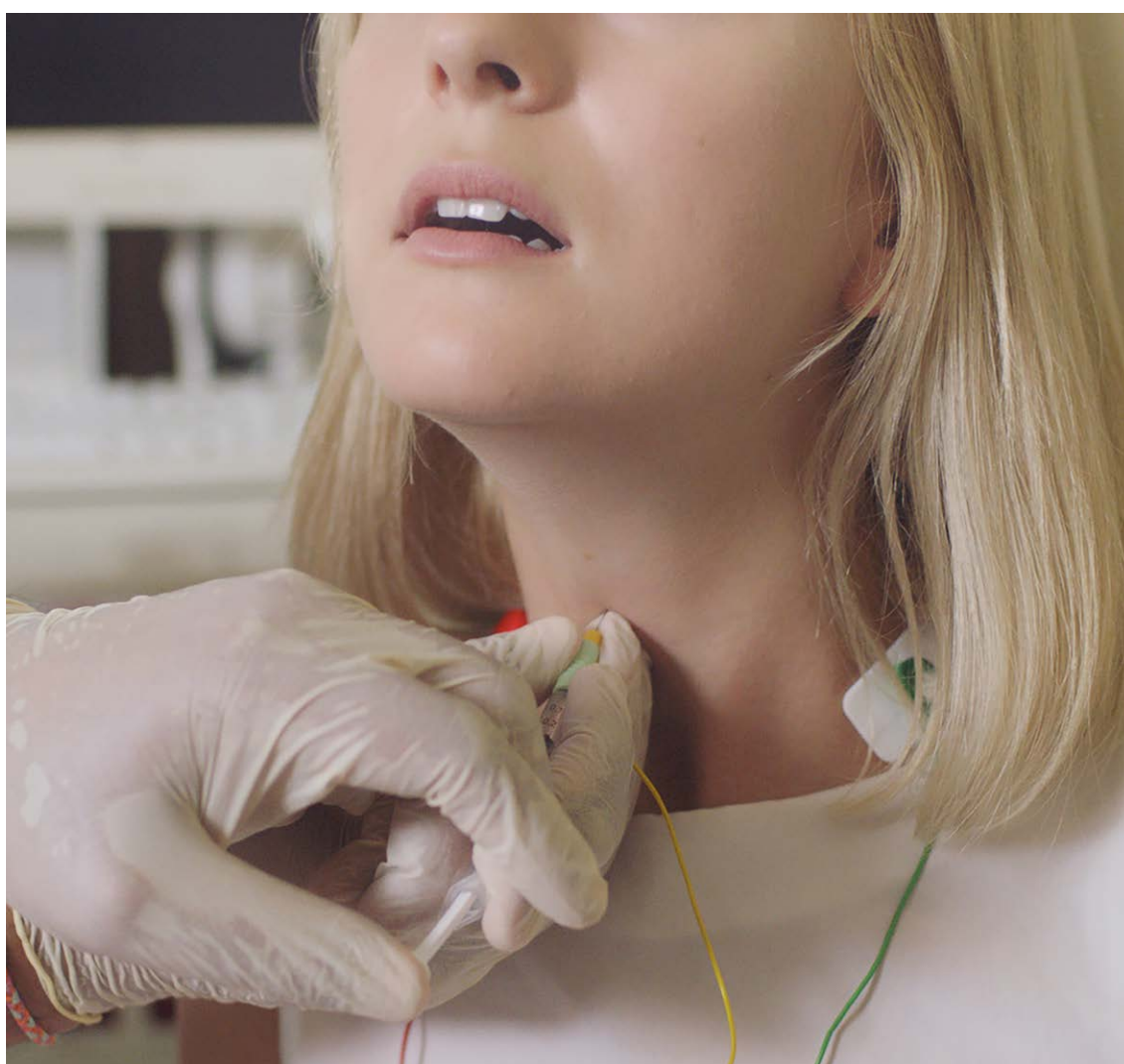
wants her voice lowered 'so that... it is closer to the groans outside that keep me turning in the night' and threatens the reluctant doctor with a plague of mosquitoes should he refuse. Told over a fluidly building cello score by Oliver Coates and a swelling pitch of mosquitoes, the story is interspersed with a melancholy pop song and a short history of Botox, set to the mournful horns of Henry Purcell. Marianna recites the symptoms of botulism and then vividly narrates them, her account bordering on the lurid. We then hear her speak forty-eight hours later in her newly deepened voice of the unexpected trauma of the procedure and the weakness she is experiencing. The video was commissioned by Serpentine Galleries (London, UK).

## Biography

Marianna Simnett is a London-based artist working with moving image, installation and performance. Her videos blend heightened documentary techniques, such as using non-actors playing versions of themselves, with hallucinatory shifts in setting and character that disrupt our ability to distinguish what is real from what is imagined. In her most recent work she treats her own body as one might play with their online avatar, given the ephemerality and flexibility of its digital presentation. Recent solo exhibitions and screenings include:

*Worst Gift*, Matt's Gallery (London, UK, 2017); *Lies*, Seventeen Gallery (New York, US, 2016); *Valves Collapse*, Seventeen Gallery (London, UK, 2016); *Park Nights*, Serpentine Pavilion (London, UK, 2015); and *Blue Roses*, Comar (Isle of Mull, Scotland, 2015). Marianna was a winner of the Jerwood/FVU Award in 2015 and is shortlisted for the Jarman Award 2017.





Marianna Simnett  
***The Needle and the Larynx*, 2016**  
Stills from video. Copyright the artist.

Marne Lucas, aka CuntemporaryArtist

# Haute Flash (an Infrared Ode to Menopause)

2017

Infrared video, black and white/sound

6 mins 18 secs

Performance: Pasha Rose

Music: *Amoré*, Maui Jungle Recordings vol. 2, by Anthony Child

Sound Design: Marne Lucas

Producer: Greg Gilbert/Soda Werks

Distribution Producer: Paul Williams/Burning Bridges (UK)

An experimental, infrared video about the hormonal effects of menopause. Eerie black and white imagery transports the viewer to an otherworldly space by capturing the movements of a human body through a heat-sensitive camera. Thermal imaging accentuates in real time the changes in surface temperature of bodies and objects: heat appears white, while cold is darker. Shot with a military grade infrared rifle scope, the

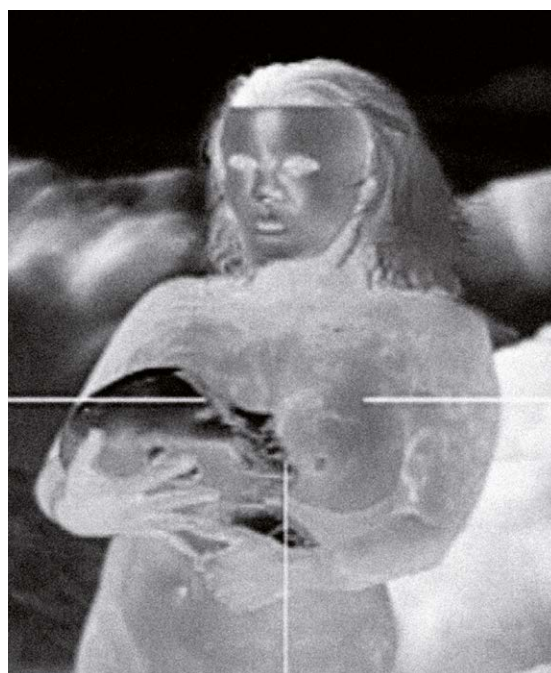
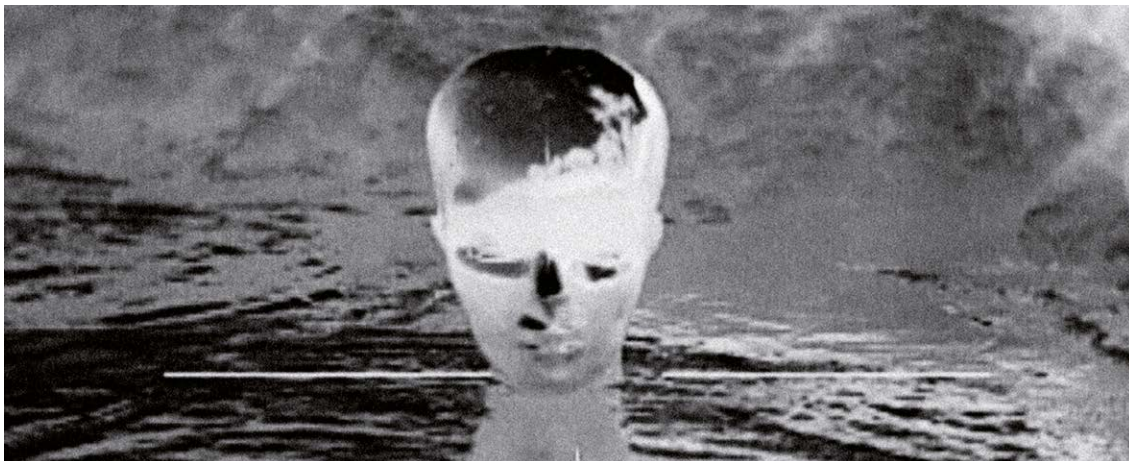
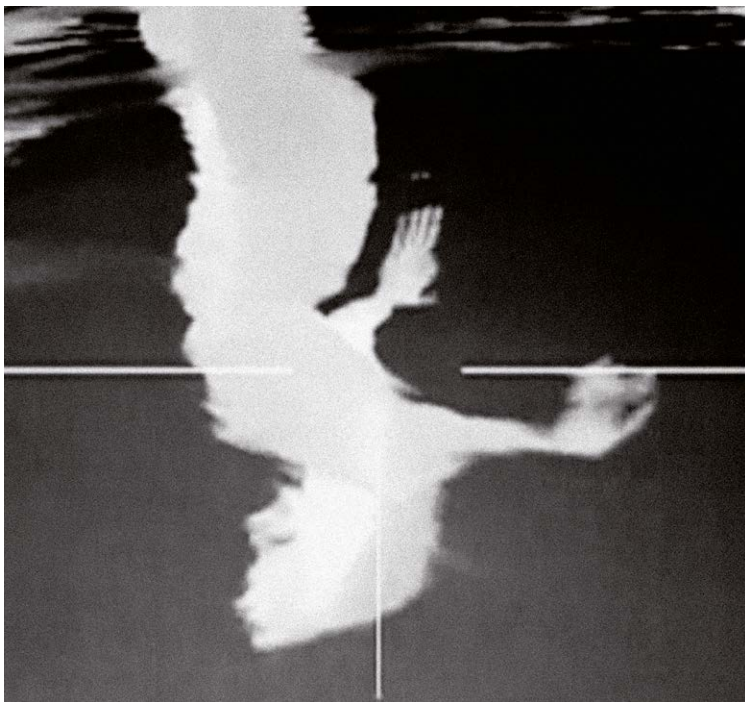
crosshairs remain visible throughout the video. The viewer is thus left with the sensation of targeting or being targeted. The artist captures the luminous infrared energy of which the woman's body is composed, so as to draw a contrast with a technology usually associated with the military and border or air surveillance. This video is a new work, created for *Transitional States*.

## Biography

Marne Lucas, aka Cuntemporary Artist, is a New York-based multidisciplinary artist who uses photography, video and installation to create projects related to social justice. Marne investigates the interrelations between nature, culture and the body through a number of distinct aesthetic and social philosophies. Marne is known for infrared video and stylistic photographic

portraiture, has received RACC project grants and has participated in residencies including an Arts/Industry Kohler factory residency in foundry and pottery (Kohler, Wisconsin, US, 2016), the Land Art Mongolia 360 Biennial (Gobi Desert and Ulaanbaatar, Mongolia, 2012) and the Portland2010 Oregon Biennial (Portland, US, 2010).





Marne Lucas, aka CuntemporaryArtist  
***Haute Flash***, 2017  
 Stills from video. Copyright the artist.

Mary Maggic, Mango Chijo Tree and The Jayder

# Housewives Making Drugs

2017

Video, colour/sound

10 mins 12 secs

Screenplay: Jade Phoenix, Jade Renegade, Mary Maggic

Performance: Jade Phoenix, Jade Renegade

Music: Leah Ann Mitchell; *Estro-Gin Song* by Mango Chijo Tree

What if it were possible to synthesise hormones in the kitchen? What if this was as easy and simple as cooking a meal? This video is a fictional cooking show where the trans-femme stars, Maria and Maria, teach their audience at home how to cook their own hormones. They perform a simple 'urine-hormone extraction recipe' while amusing the audience with their witty banter about body and gender politics,

institutional access to hormones, and all that is problematic in heteronormativity. Choosing the kitchen as the appropriate battleground for tackling body and gender politics and institutional access, the cooking show aims to challenge and subvert patriarchal society and to speculate as to the shape of a world with greater body sovereignty for all. This video is a new work, created for *Transitional States*.

## Biography

Mary Maggic (Mary Tsang) is a Chinese-American artist and biohacker who works at the intersection of biotechnology and civil disobedience. Originally from Los Angeles and now living in Vienna, Mary has a BSA in Biological Sciences and Art from Carnegie Mellon University (Pittsburgh PA, US) and an MA in Media Arts and Sciences from MIT Media Lab (Cambridge MA, US). Mary's most recent projects, *Open Source Estrogen* (2015) and *Estrofem! Lab* (2016), generate DIY protocols for the extraction and detection of the oestrogen hormone from bodies and environments, demonstrating its micro-performativity and potential for mutagenesis i.e. gender-hacking.

Mango Chijo Tree is an artist from Tokyo working in film and focusing on sexuality topics. In 2016 they collaborated with Japanese artist Rokudenashiko, exhibiting at Shinjuku Ganka Gallery (Tokyo, Japan) and at Arc Gallery (San Francisco, US).

The Jayder is an artist and creative director originally from Los Angeles, US. Since 2011, he has been based in Tokyo, Japan, working in film, design, and computer graphics. He has previously collaborated with the musicians Gnarl's Barkley, Beck, Metallica, Nike, Velvet Revolver, and on the TV series *Star Wars: Clone Wars*.





Mary Maggic, Mango Chijo Tree and The Jayder  
**Housewives Making Drugs, 2017**  
 Stills from video. Copyright the artists.

Orlando Myxx

# Flowing Under

## 2017

Video, colour/sound  
9 mins 44 secs

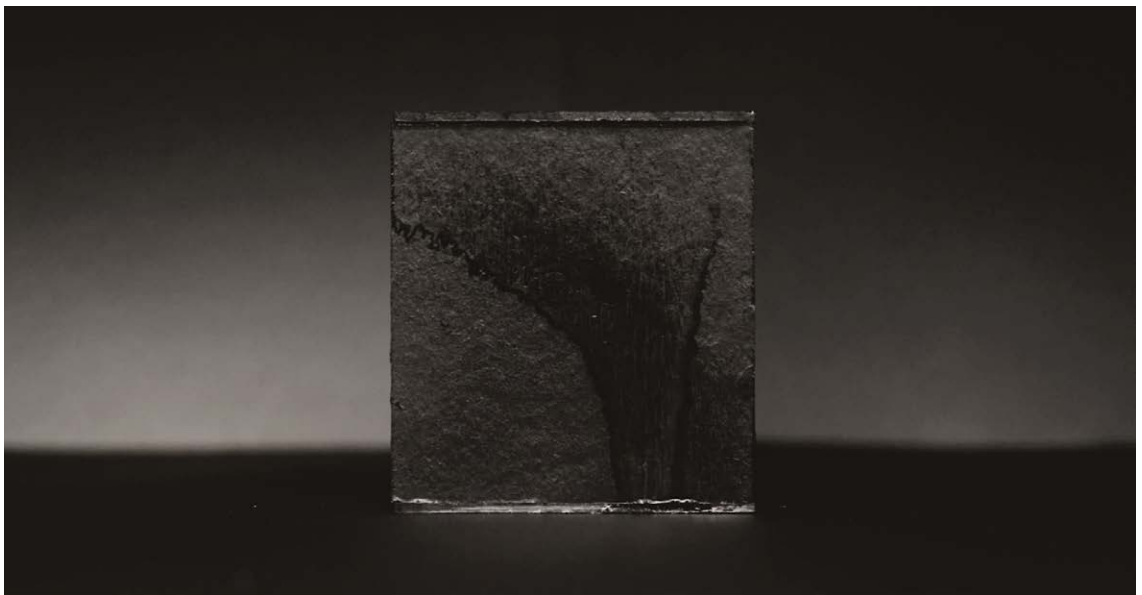
This video is part of the series *Orlando*, an autobiographical long-term project inspired by the artist's own experience as a person transitioning from one gender to another. Orlando makes use of symbols, gestures and their body in order to perform the more immaterial forces involved in the gender transition process. The video attempts to capture the effects testosterone has, not

only on appearance, but also on feelings of anxiety, the intensity of the sexual drive, and the way pleasure is experienced. The video culminates with sensual sounds and erotic gestures as the protagonist discovers a new body, ready to be explored and experienced. This video is a new work, created for *Transitional States*.

### Biography

Orlando Myxx is an Italian visual artist based in London and Padua who works with still and moving images. They completed an MA in Photography and Video-making at the Fondazione Fotografia in Modena (2016) and are currently studying for an MA in Photography at Central Saint Martins, London. Their video, *In Between* (2016), is part of the Fondazione Cassa di Risparmio di Modena's art collection, and *Not Framed* (2016) was shortlisted for the European

Photography Award. Their works have been shown in the group exhibitions *Re: Jacqueline Morreau – Mythologies* and the *Marginalised*, Nunnery Gallery (London, UK, 2017); *Lo Stato delle Cose*, Foro Boario (Modena, Italy, 2016); SI Fest OFF visual arts festival (Savignano sul Rubicone, Italy, 2016); Bologna in Lettere Festival (Bologna, Italy, 2014); and at numerous Italian queer festivals such as Queer Infection Lab (Rome, Italy, 2017) and Genderotica (Rome, Italy, 2013, 2015).



Orlando Myxx  
***Flowing Under***, 2017  
Stills from video. Copyright the artist.



Raju Rage

# Techno Gender: 'Pyramid Revealed by a Sandstorm'

2017

Video, colour/sound  
9 mins 44 secs

An audio-video sonic collage focusing on the emotional impact hormones have on the body through self-injecting, surveillance and sensation. This video forms part of a work in progress, *Techno Gender*, a series of multi-narrative audiovisual collages reflecting on gender at the intersections of technology and medicalisation. Bridging the gap between science, health, politics and art, the video raises questions about the role hormones play in the social determination of sex and gender,

together with the inequalities that a male-female binary system produces. Inspired by Paul B. Preciado's book, *Testo Junkie* (2008), online testimonials, embodied experience and grassroots health activism, the video explores what it means to be an object and subject in relation to the artist's racialised, gendered body, together with the feeling of empowerment that emerges with self-administered hormone injections. This video is a new work, created for *Transitional States*.

## Biography

Raju Rage is an interdisciplinary artist based in London who works across performance, sculpture, soundscapes and moving image. Raju focuses on techniques of resistance and uses everyday objects and life experiences to communicate narratives about gender, race and culture. By primarily using their non-conforming body as a vehicle of embodied knowledge they investigate history, memory and trauma, with an emphasis on the colonial legacy and its enduring impact on the body and contemporary diasporan identities.

Raju has recently completed a Wysing Arts Residency (Cambridge, UK, 2017) and they are currently supported by a Jerwood Visual Arts Artist Bursary (London, UK, 2017-18). They are also currently part of the Holding Space programme at The Showroom (London, UK, 2017-18) and the Tate Schools Workshop (London, UK, 2017-18) artist in residence. Raju is a creative educator with an interest in radical pedagogy, an organiser and a member of Collective Creativity and Action for Trans Health UK.



Raju Rage  
**Techno Gender: 'Pyramid Revealed by a Sandstorm', 2017**  
Still from video. Copyright the artist.

Sarah Homewood

# Turned On/Turned Off

## 2016

Film, digital, colour/sound  
6 mins 57 secs

For over fifty years, hormone-based contraceptives have allowed women control over their bodies and reconfigured society's and women's attitudes to sexual behaviour, unwanted pregnancies and fertility. On the horizon are microchip-based contraceptives that are placed beneath the skin and last for sixteen years. This microchip can be turned on and off with a remote control to allow a person to choose when they might try to become pregnant. The tension between the advantages resulting from

the technological fix that the implant provides and the personal, political and societal implications of this new form of contraception informs these speculative scenarios. This film aims to render the realities of microchip-based contraceptives more tangible from the user's perspective.

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### Biography

Sarah Homewood trained at the Northern School of Contemporary Dance, UK and in 2016 she graduated with a Masters in Interaction Design from Malmö University, Sweden. Sarah has created dance performances on the topics of self-representation and sexuality across Denmark and the UK, often in collaboration with interaction designers so as to integrate

technology into her shows. She is currently undertaking a PhD at the IT University of Copenhagen in which she uses speculative and critical design and performance-based techniques to investigate technologies that are designed to track our physiological processes, such as menstrual cycles, and to assess how these may affect our sense of self.



Sarah Homewood  
**Turned On/Turned Off, 2016**  
 Stills from film. Copyright the artist.

Zaya Barroso

# Transito

[Transit], 2017

Video, colour/sound

4 mins 49 secs

Art direction: Pilar De Vera and Zaya Barroso

Body art: Federico Veiga and Gabriela Cheirasco

The video is based on the artist's personal experience of survival, self-exploration, gender transition and rebirth. The song featured in the video is a celebration of her rediscovery and reconnection with her own body, and with the pleasures of living. The artist's skin is painted with striking colours and shapes that represent time, the environment and hormones – the various elements that affected her body the most throughout the abovementioned personal experiences. With an awareness of living

through 'in-between' states, the artist enters a new, unknown terrain. Step by step she walks towards the sea, which serves as a symbol of serenity as well as the highs and lows that form part of her transition. The video was shot in a space for community integration and social inclusion where Zaya Barroso was encouraged to express her new-found identity as an artist and trans woman. This video is a new work created specifically for *Transitional States*.

## Biography

Zaya Barroso was born in Sydney to a family that fled Montevideo during Uruguay's repressive dictatorship. When Zaya was 10 years old, the family moved back to Uruguay before returning to Australia when she was 16. Raised in a family of artists and herself a singer of protest songs, Zaya was a member

of a gospel choir and various Latin folk bands in Sydney. Zaya was sexually and physically abused as a child and used yoga and psychological therapy as part of her treatment. At 35 she began her transition and now lives in Sydney and is part of the city's vibrant queer community.





Zaya Barroso  
**Transito, 2017**  
 Stills from video. Copyright the artist.



# Reflections on Hormones

# Hormones as Messengers of Sex

Prof. Celia Roberts (Lancaster University, UK)

Sex hormones are steroids, chemical entities that are excreted from glands and circulate through the bodies of human and non-human animals to act on and within particular kinds of cells. They also flow out from bodies in urine and are consumed when we drink treated water or eat plants, animals and fish. Many of us – again both humans and non-humans – also absorb hormones via pharmaceuticals; and all of us are routinely exposed to the action of human-made chemicals that act like sex hormones in the body. These derive from industrial chemicals used in fertilisers, flame retardants, plasticisers, paints and food production and are unavoidable, circulating in water, air and everyday materials such as cloth and plastics as well as plants and animal bodies.

Sex hormones, and the many chemicals that act like them, function as messengers in human bodies. They partake in complex communication systems involving genes, cells, glands, organs, whole bodies and environments. As messengers, sex hormones are deeply relational entities: they operate within feedback loops, reacting to current conditions and interactions. Sex hormones also fluctuate over time, in both hourly and daily patterns and over the life course. In many senses, then, sex hormones flow.

As messengers, hormones are key actors in sexing bodies. Endogenous hormones (those inherent to our bodies) operate beyond our intentional control from very early phases of prenatal life until we die, and are thought to contribute both to the shaping of bodies and organs and to the patterns of feeling that we associate with sexuality and sex/

gender. Pharmaceutically, of course, we can introduce additional sex hormones with specific intentions in these respects, but such interventions do not have entirely predictable results. Medical history is littered with the unintended outcomes of taking hormones: the harmful intergenerational effects of diethylstilbestrol (DES), a carcinogenic drug marketed to 'support healthy pregnancies' is perhaps the most harrowing example.<sup>1</sup> Environmental or external hormones and chemicals that act like hormones in the body (often referred to as endocrine-disrupting chemicals) are also thought to play a part in altering a range of attributes associated with sex and reproduction: the formation of genitals; the risk of reproductive tract cancers; and, some scientists argue, gendered forms of expression, children's play, for example.<sup>2</sup> The sexing effects of endocrine-disrupting chemicals are notoriously unpredictable and can even be counter-intuitive: lower exposure, for example, can lead to greater effects in some cases.<sup>3</sup> Additionally, these three circuits of flow – the endogenous, the pharmaceutical and the environmental – intersect and interfere with one another, causing further complications. It is very hard, then, to know what might happen when we experiment with hormones. Nonetheless, desires to change our bodies and/or our sexual feelings can be and are often enacted through and with hormones. Alongside their long histories of entwinement with highly regulated medical settings and practices, sex hormones are now also important parts of 'copy-left' messaging flows associated with some forms of trans and gender-queer politics.<sup>4</sup> People buy sex hormones on the

black market and use medically prescribed hormones for 'off-label' purposes; others cook up their own.

The messaging actions of hormones in human bodies raise important questions for feminist and other radical sexual/ gender politics and theorising. How much power and significance should we attribute to these flows? Do they in any way determine our feelings, desires, subjectivities or identities? Are we in any sense at their mercy? What are the risks and benefits of experimenting with hormones? Will full control ever be possible? And would we want it anyway?

Since the mid-twentieth century, feminists – most famously perhaps, Simone de Beauvoir in her ground-breaking *The Second Sex* (1949) – have rejected claims that hormones determine the behaviours, attributes and feelings constituting masculinity and femininity, arguing in contrast that they are psycho-socially produced.<sup>5</sup> Several decades of feminist scholarship have unpicked the science underpinning biologically determinist claims about hormones, showing in detail how research of this kind presupposes and reinforces cultural ideas of sex/gender.<sup>6</sup> LGBTIQ theorists and activists have similarly resisted scientific theories about the role of hormones in sexual orientation, which were originally formulated in the very early days of endocrinological (hormonal) science.<sup>7</sup> In both realms of debate, however, some kind of uncomfortable residue has arguably been left; a sense that, critiques of sexist and homophobic science and medicine notwithstanding, hormones do indeed do something. They message.

Such a residue leaves theorists in a tight spot and demands adroit conceptual manoeuvres. In her field-shaping 1993 book, *Bodies That Matter*, for example, feminist philosopher Judith Butler both argued for the significance of language and the psyche in the production of sex/gender and asserted that '[it] must be possible to concede and affirm an array of "materialities" that pertain to the body, that which is signified by the domains of biology, anatomy, physiology, hormonal and chemical composition, illness, weight, metabolism, life and death. None of this can be denied.'<sup>8</sup> Other philosophers, such as Elizabeth Grosz and Rosi Braidotti, have similarly argued that the materialities of bodies (including hormonal flows) are significant players in the unfolding of human lives. Grosz writes

about 'the biological forces that press on and produce life', whereas Braidotti differentiates between bios (human life that is immersed in politics and discourse) and zoe ('the generative vitality of non- or pre-human or animal life.')

<sup>9</sup> While none of these writers deal with hormones in any detail, all provide a language for conceptualising biological actors as vital, enlivening, significant.

“ **The films in this exhibition similarly challenge us to open our minds and bodies to possible re-framings of sex hormones as actors in our contemporary and future lives.**

”

In *Messengers of Sex* (2007), I combine these ideas with concepts from the interdisciplinary field of Science and Technology Studies (STS) to consider the actions of sex hormones in a range of arenas – from foetal development and childhood behaviour, through to menopause and the action of environmental oestrogens. Working through these examples, I suggest that hormones can be understood as active in bodies without by the same token subscribing to biological determinism. This argument depends on a non-normative understanding of both messengers and messages:

'In contrast to conventional biological models that suggest that hormones message something definite and known ('sex') between two existing entities, I argue that the act of messaging constitutes both the sender and the receiver of the message and that messaging can be understood as a relationship or communication between the active entities thus constituted. The content of the message – 'sex' – is also not predetermined in this model.'<sup>10</sup>

In this argument, hormones message sex in active, lively ways through ongoing and dynamic entanglements with a wide range of other forces or actors, including scientific and medical discourses and practices and other material-semiotic forms. It is important in thinking through the actions of hormones, I suggest, to stay alert to the ways in which scientific attempts to analyse their actions are already caught up in gendered ways of viewing the world. Such pre-existing frames





Juliet Jacques and Ker Wallwork  
**Approach/Withdraw**, 2016  
Still from film. Copyright the artists.

powerfully shape both the questions asked about sex hormones, and the ways in which these questions are answered. They are evident, for example, in the language we use to describe hormones as 'male' and 'female' despite the fact that neither hormones nor humans can be easily divided into binary categories of this sort. Existing ideas about masculinity and femininity are also evident in medical research on hormonal pharmaceuticals, including those used to treat menopause and early onset puberty,<sup>11</sup> and in scientific attempts to understand the actions of endocrine-disrupting chemicals.<sup>12</sup> Contributing to and taking such critiques seriously, feminist scientists such as Sari Van Anders<sup>13</sup> and Anne Fausto-Sterling<sup>14</sup> endeavour to do the science of sex hormones differently.

“ **How can we experiment with hormones in ways that do not cause unwanted harm but that facilitate greater freedom and happiness?** ”

Artistic work of the sort presented in this exhibition is also essential to rethinking sex hormones as actors. Film-making can both expose the ways in which we are culturally enmeshed in current thinking about hormonal bodies and creatively explore new framings and embodiments.

In a Wellcome Trust-funded programme entitled *Queering Love, Queering Hormones*, for example, filmmakers have engaged directly with the actions of hormones in new ways, applying oestrogens to film strips for example, whilst others have documented and/or artistically worked on and with the radical hormone-related practices of others.<sup>15</sup> The films in this exhibition similarly challenge us to open our minds and bodies to possible re-framings of sex hormones as actors in our contemporary and future lives. Such challenges are deeply political acts, posing profound questions about the nature of sex/gender and sexuality and thus about the nature of human life. How is it that we are both biological and cultural creatures, and what agency do we have in relation to these deeply entwined fields? What is it that we seek to know about hormones and what is the best way to find out? How can we experiment with hormones in ways that do not cause unwanted harm but that facilitate greater freedom and happiness?

# A Short History of ‘Sex Hormones’: From Roosters to the Contraceptive Pill

Dr Chiara Beccalossi (University of Lincoln, UK)

A blind confidence in the ability of science to solve all ‘problems’ has characterised the history of how scientists have understood, used and abused so-called ‘sex hormones’. While this is perhaps the overriding feature of that history, changes to how femininity and masculinity are perceived, attempts to normalise human bodies and sexual desires, the stigmatisation of ageing, and an increasing medicalisation of human lives have all played a significant role.

This history goes back to nineteenth-century medical experiments and research. In 1849 the German physician, Arnold Berthold, showed that testes discharged a chemical substance affecting other parts of the male body. Using roosters to carry out his investigations, Berthold revealed that after castration the comb shrivels, aggressive male behaviour disappears, and roosters lose interest in hens. He also noticed that administering testicular extracts or transplanting testes could reverse the castration-induced changes. Importantly, Berthold argued that the testes’ chemical substance acts upon the blood, which in turn influences the whole organism.<sup>1</sup>

“...changes to how femininity and masculinity are perceived, attempts to normalise human bodies and sexual desires, the stigmatisation of ageing, and an increasing medicalisation of human lives have all played a significant role.”

A few years later, in 1855, the eminent French physiologist, Claude Bernard, first formulated the notion of ‘internal secretion’ in his description of how the liver acts as a gland by secreting glycogen. Although glycogen is not a true hormone or a chemical messenger, it is released in a similar way. Bernard suggested that glands release substances that travel inside the body and somehow help maintain its internal environment.<sup>2</sup> Fifty years later, in 1905, the British physiologist, Ernest Henry Starling, invented the term ‘hormone’, from the Greek term ὁρμῶν (hormon), meaning ‘to set into motion’, to refer to the chemical messengers sent through the bloodstream to regulate various different functions in organs and tissues.<sup>3</sup>

At the turn of the century, medical researchers became increasingly concerned to investigate how the secretions produced by the ovaries and testes worked. They believed these substances to be the chemical regulators of sexual development and sexual behaviour, and held that they produced masculinity and femininity. In 1900, Josef Halban, a young medical researcher working in a gynaecological clinic in Vienna, expanded Berthold’s earlier experiments. Using guinea pigs, he implanted pieces of adult ovaries beneath the skin of infant animals and observed that the young pigs’ uteruses rapidly developed to maturity. He suggested that the ovarian secretions, travelling in the blood, were responsible for the development and maintenance of the female genitals.

While researchers like Berthold and Halban experimented on animals, other medical researchers started to carry out research



into the effects of animal testes and ovaries on human beings. In 1889, Charles Brown-Séquard, a Professor of Medicine at the Collège de France, reported that he had experienced rejuvenation after injecting himself with extracts from the crushed testis of dogs and guinea pigs. He developed what came to be known as organotherapy, or opotherapy, a treatment that was optimistically believed, at any rate up until the end of the 1930s, to treat virtually every kind of problem: from nervous disorders, fatigue, and menstrual pain to ageing, thyroid disorders and diabetes. For example, doctors used extracts from brains for diabetes, from muscles for muscular atrophy, from hearts for heart disease, from the thyroid gland to treat hypothyroidism, and testicular extracts to treat epilepsy, cancer, cholera, tuberculosis, leprosy, and asthma. Doctors prescribed these extracts orally or intravenously.<sup>4</sup>

More invasive treatments involved grafting animal testis and ovaries into a patient's own testes or abdomen. In 1910, Eugen Steinach, a physiologist at the University of Vienna, embarked upon this kind of experiment with rats and guinea pigs. He noticed that castrated young male rodents, if implanted with ovaries, developed characteristics, including sexual behaviours, associated with female rodents, which he explained in terms of the effect of female hormones.<sup>5</sup> Experiments like these led directly to human experiments. In 1915, Robert Lichtenstern, who worked with Steinach, started transplanting undescended testicles from healthy men into the abdomen of men who had never developed testicles or who had lost them through injury. He also removed testicles from heterosexual men and implanted them into homosexual men in an attempt to 'cure' homosexuality.<sup>6</sup> In the US, Leo L. Stanley, the chief medical officer at San Quentin Prison in California, performed a testicular transplant from an executed murderer into a 60-year-old prison inmate in 1919.<sup>7</sup>

Arguing that the testes were the source of a man's virility and vigour, medical researchers justified testicular transplantations on the grounds that the testes were the source of manliness. More famous than Lichtenstern's research and Stanley's operations, were Serge Voronoff's transplantation treatments. Voronoff, a Russian-born French physician, began to transplant animal testis into humans in the early 1920s, his avowed

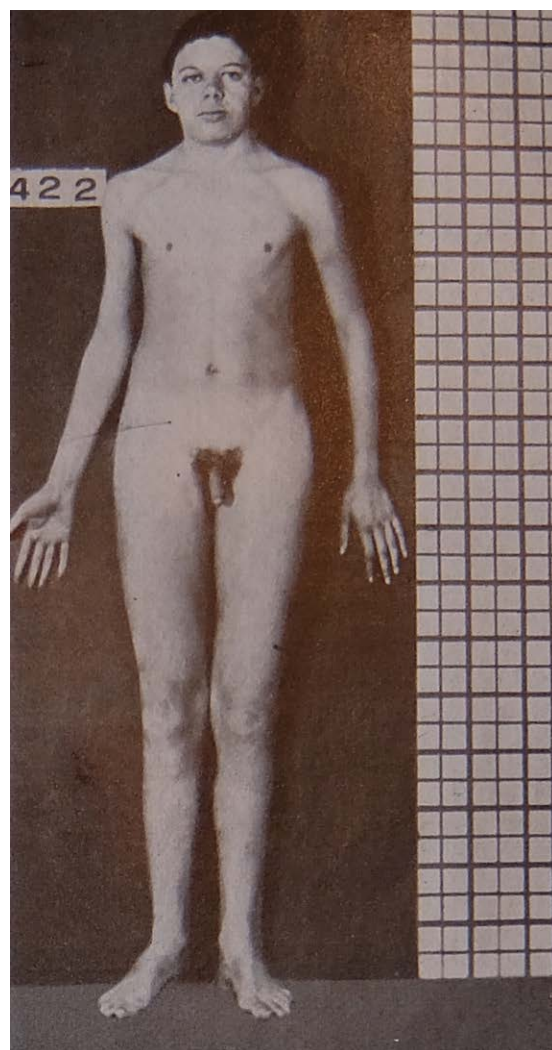
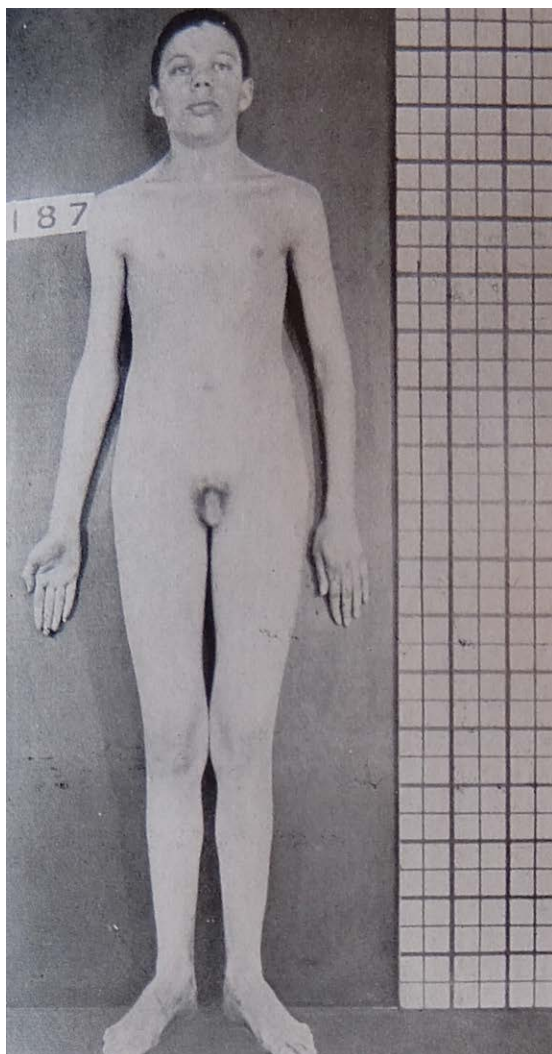
purpose being to rejuvenate men. He also suggested that male homosexuality could be 'treated' with testes transplantations. By the end of 1926, he estimated that he had performed a thousand testicular transplants, a number of which involved male homosexuals.

Organotherapy declined as scientists developed the capacity to produce synthetic hormones. Thus, in 1929 the American biochemist, Edward Doisy, isolated the first sample of pure crystalline oestrogen from the urine of pregnant women. By this date, researchers, gynaecologists and especially drug manufacturers had established networks to expand the medical market for hormone replacement therapy. As with organotherapy, researchers believed that hormone replacement therapy could potentially treat everything from nervous disorders and ageing to menstrual pain to asthma.

Pharmaceutical companies took on an increasingly important role in the history of hormone research. An American company, Parke Davis, was the first to sell products based on Doisy's work when, in 1931, it launched Theelin, a purified form of oestrogen,<sup>8</sup> derived from pregnant women or horses. In Europe, in 1938, scientists at the Schering pharmaceutical company in Berlin produced another form of oestrogen called ethylin estradiol, which was derived from urine and sold as both oral and injectable products.<sup>9</sup> By the end of the decade doctors on both sides of the Atlantic were able to prescribe oestrogen to women going through menopause.

The isolation of testosterone runs parallel to that of oestrogen. In 1927, Fred Koch, Professor of Physiological Chemistry at the University of Chicago, established links with the Chicago stockyards, which gave him access to large quantities of bovine testes. At the same time he recruited a number of students willing to isolate the bovine hormones and, in partnership with one of these students, Lemuel McGee, he derived 20mg of a new substance from 40 pounds of bovine testicles. When given to castrated roosters, pigs and rats, this substance re-masculinised them. However, the isolation of the hormone from animal testis in amounts permitting serious study in humans was not possible until three European pharmaceutical giants, Schering in Berlin, Organon in Oss, and Ciba in Basel,





Before (left) and after (right) opotherapy treatment. These photographs were taken four months apart. The individual allegedly suffered from 'eunuchoidism', a condition characterised by a lack of secondary sexual characteristics.

From **Nicola Pende, *Scienza dell'ortogenesi*** (Istituto Italiano d'Arti Grafiche: Bergamo, 1939).



**Six ampoules of progesterone,**  
London, England, 1960-1970.  
Credit: Science Museum, London.  
Source: Wellcome Library, London

began large scale hormone research in the 1930s. In 1935, the Organon group in the Netherlands was the first to isolate the hormone testosterone.<sup>10</sup>

While doctors continued to use hormone treatments to repress non-normative behaviours such as homosexuality up until the outbreak of the Second World War, subsequently they began using hormones not to curb expressions of sexual difference but rather to permit them, by for example assisting gender transitions. One of the first recorded medical uses of hormones for transitioning dates back to 1949, when the famous American sexologist, Alfred Kinsey, referred a patient to Harry Benjamin, a German-born American endocrinologist and sexologist known for his pioneering role in the study of trans people. The patient, Val Barry (a pseudonym), was born male and expressed an intense desire to become a woman, so Benjamin began administering female hormones and in 1953 Barry underwent genital surgery in Sweden.<sup>11</sup>

Finally, understanding the working of hormones contributed to major changes in women's sexual behaviours. In 1951, with the help of the American birth control activist Margaret Sanger, the biologist Gregory Pincus was awarded a grant to carry out hormonal contraceptive research. Working with Min Chueh Chang, a Chinese-born American reproductive biologist, Pincus learnt that progesterone inhibited ovulation. The first version of the pill contained synthetically produced oestrogen and progesterone to mimic the body's natural hormones and was tested on a small sample of women in Boston between 1954 and 1955. In 1956 he carried out large-scale human trials in Puerto Rico before introducing his new product to the market in 1960, where it sold quickly on both sides of the Atlantic. In the US, around 1.2

million women were using the pill within two years of its launch. At the beginning of 2000 an estimated 100 million women worldwide were taking the pill.

**“ From the development of opotherapy to the introduction of the contraceptive pill, the history of hormones remains a story of medical breakthroughs with sometimes disquieting implications. ”**

While the mass distribution of the pill granted many women control over their bodies and freed them from the fear of unwanted pregnancies, this was at the expense of poor Latino and black women. Indeed, the contraceptive pill was tested on vulnerable Puerto Rican women, who were led to believe they were taking an approved drug rather than participating in a trial. They were also unaware of the potential dangers, with approximately one-fifth of women suffering a multitude of side effects including severe cramping, nausea, dizziness, headaches, stomach pain, and vomiting.<sup>12</sup>

Hormone treatments have positively affected the lives of millions of people and continue to be used in a variety of ways in contemporary society. While they have granted individuals greater control over their bodies and more freedom to express their own gender identity, the road to their development has clearly led at times in far darker directions. From the development of opotherapy to the introduction of the contraceptive pill, the history of hormones remains a story of medical breakthroughs with sometimes disquieting implications.

# What Happened to Hormones?

## *Intersex and the Legal Definition of Sex in Mid-twentieth-century Britain.*

Dr David Andrew Griffiths (University of Surrey, UK)

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The medical history of homosexuality and the history of intersex are intertwined. In the 1950s there was a demand for a medical and legal definition of biological sex in Britain, in part due to an increasing concern with homosexuality in the UK. The fifteen years that followed the outbreak of the Second World War saw a dramatic rise in the number of indictable homosexual offences, as well as a number of high-profile cases in the press which intensified the public debate.<sup>1</sup> In 1954, British Home Secretary Sir David Maxwell-Fyfe explicitly described homosexuals as a danger to society, and at the end of this same year there were over a thousand men in prison in the United Kingdom who had been convicted of homosexual acts.<sup>2</sup> In September 1954 a committee chaired by Sir John Wolfenden was appointed to consider laws relating to homosexuality.<sup>3</sup> The Wolfenden Report, published in 1957, would play a role in the partial decriminalisation of homosexuality enacted in the 1967 Sexual Offences Act.

In 1955, in the pages of the *British Medical Journal*, the official journal of the British Medical Association, the British endocrinologist C.N. Armstrong wrote as follows: 'So far the law has never defined sex, which is extraordinary in view of the homosexual laws in this country, and it is sometimes very difficult to say to which sex an individual belongs.'<sup>4</sup> As an endocrinologist, Armstrong had direct experience of what we might now call intersex bodies, that is, bodies that do not fit normative constructions of male or female.<sup>5</sup> This experience of bodies that could frustrate medical experts' determination to comply with binary sex definition raised the question: if the male-female binary was not always easy

to define and maintain, then how could the crime of homosexuality be simple and self-evident?

Previously, Armstrong had suggested that legal sex should be defined solely in terms of gonads. Discussing a 17-year-old female patient with internal testes or what was called at the time 'male pseudohermaphroditism', Armstrong stated:

The legal determining factor in intersex cases is the anatomical structure of the gonad independent of the social or sexual inclinations or external appearance of the subject. In this case, therefore, the legal sex is male, and although one would have no hesitation in defending this patient's desire to continue living as a female, the clinical problem does arise as to how far a surgeon is justified in carrying out a plastic operation to make a vagina which, in this case, has already been requested.<sup>6</sup>

Armstrong's approach fits with what historian Alice Dreger has called 'the age of the gonads', where sex was theoretically defined by the existence of ovaries or testes, while in practice medical professionals did not attempt to make the social sex strictly correspond.<sup>7</sup> As the individual was assigned female at birth, and wanted to continue living as a woman, Armstrong saw no reason to force her into a male role. However, concerns about homosexuality can be seen in his hesitation to justify the requested plastic surgery on the vagina.

By 1957, Armstrong had developed a more complex definition of biological sex, suggesting five criteria for establishing sex:

'nuclear sex pattern' (chromosomes); gonadal status; chemical evidence (hormones); external anatomy; and psychological sex.<sup>8</sup> Armstrong recognised the complexities informing these criteria and made the following recommendations where the law was concerned: for individuals with 'ambiguous' genitalia and the inability to urinate standing up, sex should be assigned in correspondence with chromosomes, with corresponding surgical and hormonal interventions; when external sex anatomy does not correspond to chromosomes or gonads, the external anatomy should take precedence; and where psychological sex does not match external anatomy, society should allow these individuals to live 'as their true sex emotion directs', despite remaining legally defined by their external sex anatomy.

Significantly, Armstrong's five-part definition of sex was invoked in a legal case that had lasting significance and relevance in the UK and further afield: *Corbett v Corbett*, heard over 17 days in November and December 1969 with judgement delivered 2 February 1970.<sup>9</sup> The case involved April Ashley, who had married Arthur Cameron Corbett in 1963. Ashley was assigned male at birth in 1935, but was living as a woman and was working as a successful model. After the relationship with Corbett broke down, Ashley instructed her solicitor to make a claim on Corbett's property. Issuing instead a claim for maintenance, Corbett responded by petitioning to annul the marriage on the grounds that Ashley was not legally a woman. Armstrong was called as an expert on the case, and he argued that Ashley could be considered intersex, and therefore could be assigned female by a doctor and that the law should follow this judgement. Judge Ormrod claimed that he found Armstrong's testimony less convincing than that of the medical experts supporting Corbett. The court invoked a 5-part definition of sex similar to that suggested by Armstrong in 1957:

All the medical witnesses accept that there are, at least, four criteria for assessing the sexual condition of an individual. These are – (i) Chromosomal factors. (ii) Gonadal factors (ie presence or absence of testes or ovaries). (iii) Genital factors (including internal sex organs). (iv) Psychological factors. Some of the witnesses would add – (v) Hormonal factors or secondary sexual characteristics (such as distribution of hair, breast development, physique etc.

which are thought to reflect the balance between the male and female sex hormones in the body).<sup>10</sup>

During the hearing, the importance of hormones was repeatedly stressed, and in relation to the other four factors. The relation of chromosomes to hormones, the role of gonads in the production of hormones, the role of hormones in the development of external appearance, and animal studies regarding hormonal influences on behaviour and psychology were all discussed. Despite this emphasis on the importance of hormones, they were ultimately denied a role in the definition of 'legal sex'.

According to Judge Ormrod, a person's psychology, their hormones, and any surgical interventions could not make a person 'naturally capable of performing the essential role of a woman in marriage.' Legal sex was defined by a congruence of chromosomes, gonads and genitals at the moment of birth, and where these three criteria were not congruent, 'greater weight would probably be given to the genital criteria than to the other two.' For Ashley, the assumed existence of a penis and testes at her birth meant she had never officially been married, and she was considered not to be entitled to any maintenance. Ormrod attempted to restrict this decision solely to the definition of a woman 'for the purposes of marriage', but the judgement was more far-reaching than that. Lisa Fishbayn argues that this case established the 'Corbett test' (the congruence of chromosomes, gonads and genitals at the moment of birth) as legal precedent, and draws attention to the fact that it was applied in legal cases as late as 2001.<sup>11</sup> Legal scholars such as Alex Sharpe have also emphasised that the case was strongly influenced by concerns about homosexuality.<sup>12</sup> The case also delegitimised trans identities, as it allowed for only a binary sex distinction, with intersex as a limited category and unfortunate exception.<sup>13</sup> Thus it maintained a male-female binary, even while it explicitly dealt with examples that could threaten this binary. Perhaps hormones had to be excluded to make this simplification of biological sex possible?

There is further relevance of this case for the history of intersex. In the mid-twentieth century, John Money and his colleagues at Johns Hopkins University in the US promoted a 'best sex' approach to intersex, arguing that gender identity was malleable until



approximately eighteen months. That is, a child could be successfully raised as either a boy or a girl, as long as their genitals were surgically and hormonally made to correspond with their assigned gender, and no doubt was communicated as to their gender assignment.<sup>14</sup> As in the Corbett v Corbett case, multiple factors were considered to have an effect on sex and gender, but in the end the most important element was assumed to be genital aesthetics. Money's work led to a standard of treatment that encouraged early surgical intervention on infants' genitals, with the aim of 'normalising' how they looked, thus (so the logic went)

reinforcing the parent-child bond, and by the same token sustaining the development of 'normal' gender identities. The Corbett test's insistence on the congruence of chromosomes, gonads and genitals *at the moment of birth*, reinforced the idea that the birth of an intersex child was an emergency, and legitimised the supposed importance of performing intersex surgeries early. Money's influence is rightly emphasised in intersex history; it has been argued that his work from this period constituted 'the essential writing on the subject' until the 1990s when the Intersex Society of North America was founded, and scholars such as Suzanne Kessler and Anne Fausto-Sterling began to



**April Ashley**

Credit: Photo copyright Sally Payne 2011  
Source: Flickr, April Ashley – Equator Bar, Birmingham,  
<https://www.flickr.com/photos/sallypayne/6414712979>



***The genitals of a hermaphrodite, viewed from the front.***

Photograph by Albert Wilson.

Credit: Wellcome Collection.

Source: Wellcome Library London

publish on intersex, and to challenge the prevailing paradigm as harmful, experimental, and as a human rights abuse.<sup>15</sup>

In the mid-twentieth century in Britain there was a demand for a definition of sex that could be used in medicine and law, and this was made more urgent by contemporary concerns about homosexuality. Medical professionals with experience of intersex bodies were aware that sex is multi-factorial, and that this made such definitions tricky. In *Corbett v Corbett*, the legal definition of sex was simplified, in part by the removal of hormones from the equation. From this

point until the UK's Gender Recognition Act of 2004 and beyond, this decision structured how law and medicine thought about biological sex, with continuing repercussions for individuals whose sex or gender does not fit within restrictive binary social norms of male and female.

“ **Medical professionals with experience of intersex bodies were aware that sex is multi-factorial, and that this made such definitions tricky.** ”

# Hormones, Feminisms and Resistance

Dr Hera Cook (University of Otago, New Zealand)

What part of our being do hormones create? How might the chemical reordering of the body by oral contraceptives alter us? I start from the position that I am, like you, an animal; our capacities and being are afforded by our bodies. There is nothing else; no old man in the sky, no wheel of Karma. Donna Haraway's cyborg women, her vision of the blurring of boundaries between humans and machines, of fluid interactions fusing the natural and the artificial, has been embraced as a means of framing such questions.<sup>1</sup> Hormonal contraception, most often the pill, involves using synthetic hormones, progesterone alone or together with oestrogen, to prevent ovulation. The side effects are complex and multifaceted; early research by the Royal College of General Practitioners revealed negative impacts on over sixty medical conditions. Consciousness is shaped by a mysterious and complex, ongoing interaction between the brain and the body. The chemical machine that is the pill produces metabolic changes that may modify biochemical processes in all bodily tissues, disrupting and altering those interactions and our consciousness.

“**Hormonal contraception, most often the pill, involves using synthetic hormones, progesterone alone or together with oestrogen, to prevent ovulation. The side effects are complex and multifaceted...**

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The pill became available around 1960; by the mid-1970s, 50 million women in developed and developing countries around the world were 'on the pill'. In Australia,

Canada, West Germany, the Netherlands and New Zealand, over a quarter of women aged 15-44 years were regular users. It was estimated that there were between 13 to 20 million women taking the drug in the People's Republic of China.<sup>2</sup> In the UK, by 1989, the pill had been used at some time as a contraceptive method by over 75% of all women born between 1945 and 1959.<sup>3</sup> There were twenty-nine brands of the pill available in 1969, made up of varied combinations of synthetic oestrogens and progesterones. In the body, target cells with sex hormone receptors are present in the womb, breasts, ovaries, as well as the brain and the pituitary gland. Once attached to the appropriate receptor, hormones control sexual development and functions, and contribute to regulating growth, muscle building, digestion, blood pressure and blood sugar levels. They influence emotions associated with stress; oestrogen alone gave many women a feeling of euphoric well-being, but adding progesterone could produce premenstrual type symptoms.<sup>4</sup>

The pill, released at the peak of scientific triumphalism, was supposedly the perfect contraceptive. Resistance initially came from medical researchers alarmed by the mid-60s thalidomide disaster and the discovery in 1971 that diethylstilboestrol given to pregnant women could cause previously rare vaginal tumours in their daughters, exposed to the drug in the womb. There was a series of 'pill scares'; first of all in 1969 when eleven brands were withdrawn following research showing that there was a substantially increased risk of fatal thrombosis, or blood clots, in women taking oral contraceptive formulations containing high doses of the hormone oestrogen. Further pill scares followed in 1977, 1983, 1995. Sales peaked in 1977 but most women seem to have decided that the risk

was worth it in exchange for the relative freedom from fear of pregnancy the pill offered. Many endured a range of 'minor' side effects, including depression, nausea, headaches and loss of sexual desire. A pair of senior epidemiologists commented that 'such symptoms... disappear immediately medication is stopped and so do not, in our view, represent a "hazard"'.<sup>5</sup>

In 1968, three large research trials began in the UK and the USA, based on medical records from nearly 90,000 women, between 50% and 75% of whom were using, or had in the past used the pill or hormone replacement therapy (HRT). The 1974 Royal College of General Practitioners Report found an 'enormous increase in migraine, vaginal discharge, depression, infections and loss of libido' among the pill users. A third of those who stopped using the pill did so as a result of depression, which Dr C. R. Kay, who was leading the research, described as 'neurotic depression'.<sup>6</sup> At the ten-year follow-up it was found that ever-users of the pill had made 238 suicide attempts compared with 106 in the control group of never-users. In the Oxford/FPA study, four times more pill-users were admitted to hospital for attempting suicide than were women using a diaphragm for contraception.<sup>7</sup> In the USA Walnut Creek study, pill-users were significantly more likely to be using tranquillisers and those aged 50-64 years had three times more accidents and suicides if they had used the pill.<sup>8</sup> Suicide would seem to be incontrovertibly a 'hazard'. The rate of depression increased with the dose of oestrogen in the pill and, as these studies included many women who had been on the high dose brands that were withdrawn in 1969, depression and the other minor side effects will have decreased significantly, though negative moods continue to be a major reason for ceasing to use hormonal contraception. What remains may be intangible; low moods, irritability, fluctuating sexual desire and headaches; a shadow cast over life.

By the early 1970s, well over half the cohort of British women aged twenty-five had used the pill;<sup>9</sup> effective prevention of pregnancy played an important role in diminishing the control that men or parents could exercise over young women, thus the pill helped enable the rise of feminism. Early divisions in the Women's Liberation Movement were caused by differences in political tactics and ideology but there were also deep rifts in

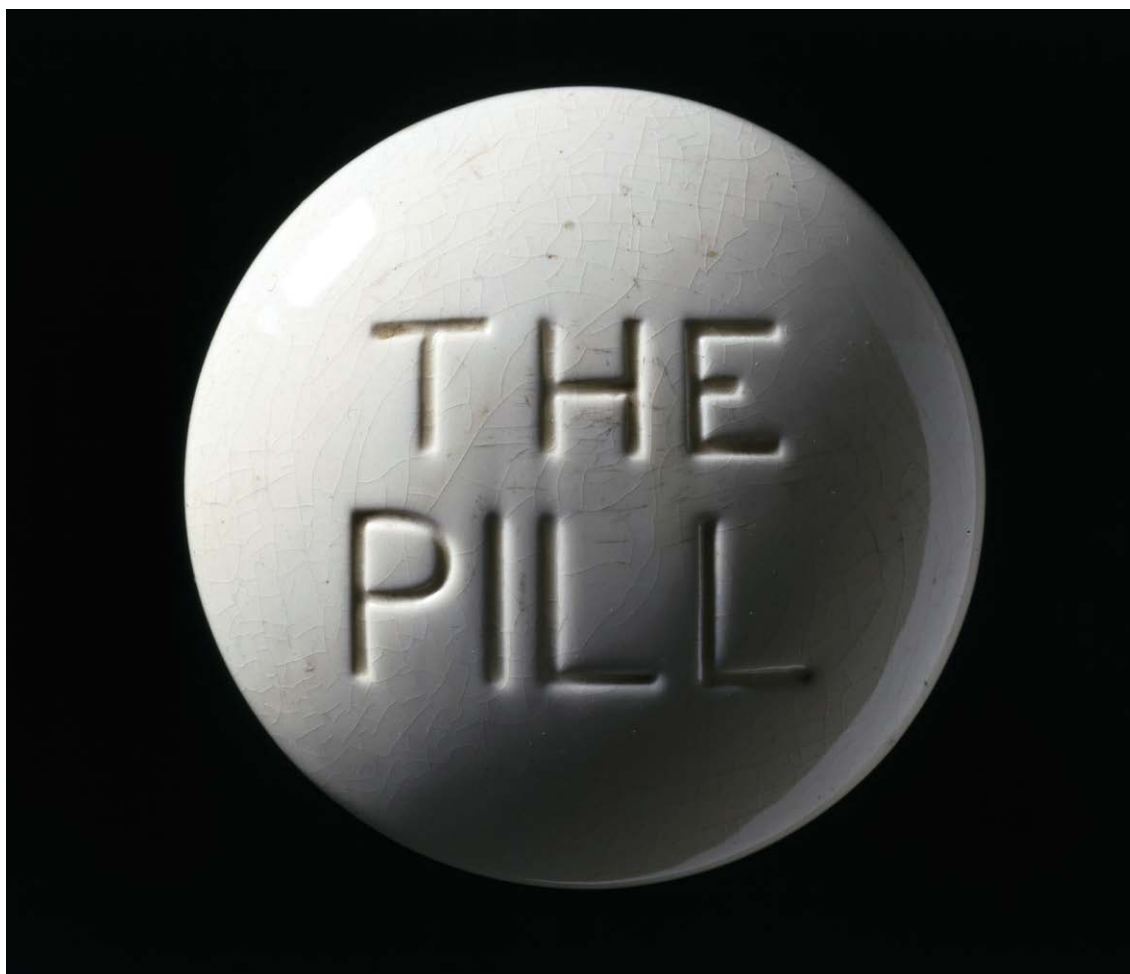
women's attitudes to their bodies; between those who desired a natural body with the least invasive fertility control, versus those who aspired to a highly managed body with the most convenient fertility control. Those who rejected medical paternalism and desired self-management of their own bodies, versus those who wanted the greatest possible access to medical treatment – and their doctor's care. For some women their natural body was, and is, a body that plunges them into disabling pain at frequent intervals, with headaches, low sexual desire and nausea. For them the fusion into a cyborg body removing their menstrual cycle was a gift. For others, the cultural changes taking place in attitudes to bodies included welcoming their menstrual cycles.

“ **They influence emotions associated with stress; oestrogen alone gave many women a feeling of euphoric well-being, but adding progesterone could produce premenstrual type symptoms.** ”

By the mid-1960s, the widespread rejection of respectability by the young was well under way. Crew cuts on men and white gloves on women were going, going, gone, replaced by tighter clothes for men and shorter, sexier skirts on women. By the early 1970s, longer hair for both sexes was a new norm; this could be merely a new look that went with heightened consumption of body care products. Opposed to this, there was a celebration of natural bodies; long uncontrolled hair on the head, bare feet, self-expression, sitting on the ground, hairy under-arms and legs, vegetarianism, rejection of femininity. Much of this was still very radical and even Women's Liberation supporters were often not on the bus. Researchers who thought the effects of the pill too high a price to pay suggested diaphragms or condoms, combined with checking their cervical mucus to track ovulation and safe legal abortion as a back-up. Taking this route leads to acceptance of something like a natural body but it remains the choice of a tiny minority.

Donna Haraway's cyborg linked humans, machines and other animals; oral contraceptives are chemical machines





**Model of a contraceptive pill, Europe, c. 1970.**  
Credit: Science Museum, London.  
Source: Wellcome Library London.



**Progesterone only morning after pill.**

Photography by Kate Whitley.

Credit: Kate Whitley.

Source: Wellcome Library London.

entering our bodies and, as chemical cyborgs, we have become something new and different. Haraway characterised those who rejected technology as spiritual earth mothers, fighting patriarchy with essentialising visions of female-as-nature. That was however, only one approach. Enjoying having a female body, including menstrual cycles, is a radical break with the past and with contemporary culture. In 2005, the World Health Organisation International Agency on the Evaluation of Carcinogenic Risks in Humans assessed the current hormonal contraceptives and they found that 'the relative risk of developing breast cancer is slightly increased in present users and recent users compared with never-users' and

that 'the risk of cervical cancer increases with duration of use.'<sup>10</sup> Worldwide, around 100 million women are estimated to be currently using the pill and there are perhaps 300 million ever-users. A slight increase in risk translates into large absolute numbers. Those who did not take the pill have not escaped. The fish bowl we call earth is now a bath of oestrogens, with thirty years of research showing human and other animal wastes are feminising male fish. Human male sperm counts are falling for unknown reasons. There may be no change in female human animals – but any change would be extremely subtle and might not have to do with sex characteristics, so would we know?

# Hormones and Clinical Practice

Dr Christina Richards (MSc, DCPsych, CPsychol, MBACP Accred., AFBPsS, HCPC, Registered Applied Psychologist)

There are many people who do not identify as the gender they were assigned at birth. Some people identify within the gender binary of male or female and may refer to themselves – when the fact that they are trans is pertinent – as trans women or trans men; although many people in these groups wish to leave their trans identities behind and simply identify as men or as women. There are also people who choose to identify outside of the gender binary of male or female – genderqueer or non-binary people. Some non-binary people have a fixed gender identity other than male or female; and some have a fluid identity which alters according to circumstance or feeling.

Many of these groups of people, both binary and non-binary, choose to alter their appearance in line with their identity. This may be done with clothing which has certain societal meanings associated with a particular gender. It may also be done with prostheses such as packers to effect a 'male' genital contour, a gaffe to effect a 'female' genital contour, binders to flatten the chest, or breast forms. Altering appearance may also be undertaken through physical changes such as hormones or surgeries. Surgeries may include the removal of breasts and creation of a masculine chest contour; implants to create breasts; hysterectomy and oophorectomy to prevent menstruation; the creation of a phallus either through alteration of the clitoris or through a free graft (with the option of erectile capacity); the creation of a scrotum and testicles; the removal of testicles; the removal of a penis; the creation of a clitoris and labia; and the creation of a vagina.

As well as the option of surgery there is the option of hormone treatment, which can have various beneficial effects. For example, testosterone given to people assigned female

at birth will produce male pattern body hair, increase in clitoral size, loss of vaginal elasticity and lubrication, facial hair, a deepened voice, an increase in muscle bulk, body fat redistribution away from the hips and chest and towards the abdomen; cessation of menses; and (if the person has a genetic propensity for it) baldness. In addition to physical changes there may be an increase in general drive, and especially sex drive which may be disconcerting at first.

Trans men often take testosterone for the rest of their lives as they are very happy with the full range of effects; however there are increasing numbers of non-binary people who only wish for some, but not all, of the effects of testosterone and so seek to stop it early in the hope of obtaining specific effects. To some extent this can be successful as many changes are irreversible – for example baldness and male-pattern facial hair. And some effects may revert – such as fertility loss – indeed some are likely to revert, such as body fat redistribution. This can lead to a mix of gendered characteristics which is much to the liking of some non-binary people; however the effects are not bespoke as hormone treatment mimics cisgender<sup>1</sup> puberty where changes co-occur. For example, it is not possible to develop a beard without also having a deepened voice, much as some people might want to. Head hair loss is a common concern in this group as it co-occurs with many changes people desire more.

For those people who are assigned male at birth the use of oestrogens and antiandrogens redistributes body fat from the abdomen to the hips and breasts, develops breasts, softens skin, and can cause infertility and erectile loss. Many trans women are happy with these changes (although wish that they reduced body hair

and regrew head hair, which sadly they do not). Increasing numbers of people who are opting to keep their penis wish to also keep erectile capacity, which calls for careful endocrine (hormone) management and cannot always be achieved. Non-binary people who wish to take oestrogens often continue to take them throughout their life as the feminising effects on people who have been through a 'male' puberty in childhood are not as marked as the masculinising effects of testosterone on those who have been through a 'female' puberty – with the exception of the development of breasts, which many non-binary people who were assigned male at birth are happy to keep.

In countries without socialised healthcare, and increasingly in countries with socialised healthcare but with prohibitively long waiting lists for gender clinics, self-medication is common. Unfortunately, the provenance of the medicines used is unknown and the results uncertain. One key difficulty is that people understandably think that taking more of a medicine will achieve more of an effect and/or work faster, which is not the case. In fact, it is possible that too much oestrogen may be turned by the body into testosterone and vice versa. Furthermore, the effect of hormones is not direct – hormones trigger genes which develop the desired bodily changes. These genes need to be triggered at the correct time for the optimal effect, which is why those people who rush may end up with only partially developed breasts for example, which will not develop further. Hormone treatment requires careful blood level monitoring to ensure that the correct levels of hormone in the body are reached – neither too much nor too little. These blood tests should also be used to ensure that health is being maintained and that the brain, blood, liver and kidneys remain healthy. All this is specific to the individual – so for two similar people to have the same (full) effect, one may be prescribed much more than the other.

When people wish to have cross-sex hormones within the United Kingdom's National Health Service it is usual for them to be referred by their primary care physician (GP) to one of seven regional specialist gender identity clinics. There a thorough assessment is carried out by a mental health professional and a recommendation is made for treatment,

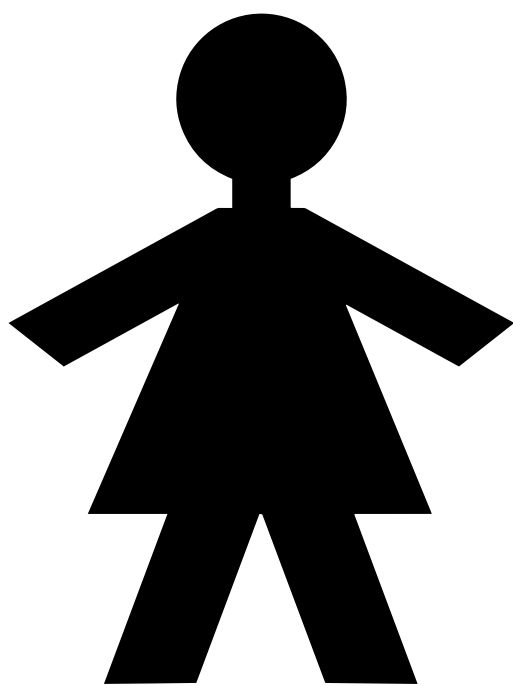
often in concert with a medical doctor who specialises in hormones, an endocrinologist. Once the person is established on hormones their GP will usually carry on prescribing for as long as the person desires.

“...this assessment by a mental health professional is contentious, as being trans or non-binary is not a mental illness. To some extent the assessment is a legacy from the days when it was thought to be so...”

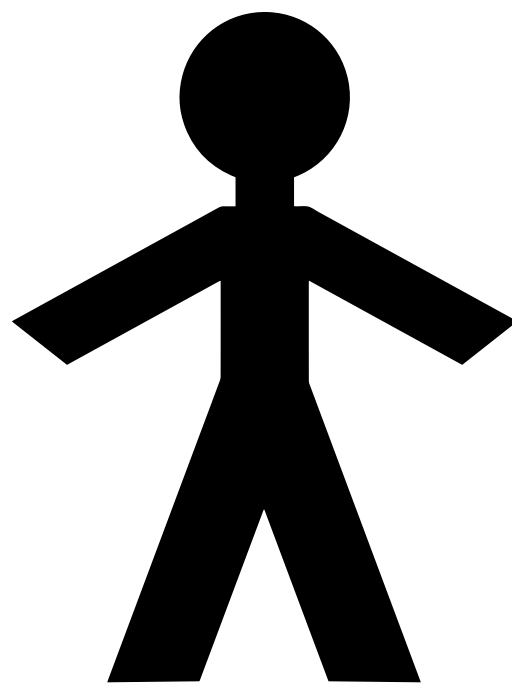
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Of course, this assessment by a mental health professional is contentious, as being trans or non-binary is not a mental illness. To some extent the assessment is a legacy from the days when it was thought to be so; however now the job involves ensuring that the extremely rare conditions which present as gender dysphoria are picked up; ensuring that (as the taxpayer will be paying for it) the treatment is likely to be of some benefit; and predominantly assisting people with the sometimes tricky process of adapting to a new social and/or physical situation. This is complicated, of course, by the mental health professional holding the dual role of being both gatekeeper and assistant. Nonetheless many trans and non-binary people have difficulties with anxiety and depression and assistance in coping with those states, alongside gender, is vital. It should not be assumed, of course, that being trans or non-binary is the cause of the anxiety or depression, as it is not. Instead the cause is almost invariably societal and/or family intolerance. Indeed, it is noteworthy that when trans and non-binary people are well supported the rates of anxiety and depression move in line with general population norms. Unfortunately, the idea of societal intolerance is sometimes over-enthusiastically highlighted by trans and non-binary communities to the point at which vulnerable people who have not suffered prejudice are still nonetheless inhibited by fear. This is not to say difficulties should not be highlighted, discussed and fought against, but that real pleasures and ease should be highlighted too so that people considering coming out can take a balanced view.





Cloak



No Cloak

**Cloak, No Cloak**  
Source: Christina Richards



#### **Hormone therapy**

Credit: ESB Professional.

Source: Shutterstock

We have been discussing 'gender dysphoria' above, but, of course, not all people are dysphoric about their gender. There are people who are very much so, but there are also people for whom it is a matter more of congruence, comfort, and/or authenticity rather than ameliorating dysphoria per se. As high GDP Western society (and it is primarily this to which I refer here) moves towards a more inclusive view of

gender with less strict segregation of body, behaviour, aspiration, and presentation between men and women there is more opportunity for people to realise their personally congruent self without having to be (or being seen to be) ill beforehand. This is entirely the right direction of travel as we should all have the opportunity to be all we can be without being held back by such unreasonable expectations.

# How the Media Lies about Hormone Therapy for Trans Children

Paris Lees (Writer and broadcaster)

Puberty blockers have been used for decades to suppress sex hormones in children who develop too early. I have never seen anybody question endocrinologists about this before but, when it comes to trans kids, the media always stress the side effects and highlight the notion that kids might later change their minds, thus ignoring the fact that gender identity is fixed by the time kids reach puberty. Parents who allow trans kids to use puberty blockers are described as people who hurt their children – or even as ‘abusers’ – rather than as parents who care about their children. Why?

In 2015 the BBC aired a documentary called *Just a Girl*, about an 11-year-old trans girl who was taking puberty blockers. It was not an advert for gender transition: it just described what her life was like. It was educational. ‘Fury at BBC sex change show for 6-year-olds’ screamed the *Mail on Sunday*’s headline. *The Sun* and *The Mirror* repeated the story almost word for furious word.<sup>1</sup>

*The Mail on Sunday* quoted Tory MP Peter Bone who said: ‘It beggars belief that the BBC is making this programme freely available to children as young as six... It is completely inappropriate for such material to be on the CBBC website, and I shall be writing to BBC bosses to demand they take it down as soon as possible.’<sup>2</sup>

“...study after study shows that hormone therapy and genital reconstruction surgery, where appropriate, leaves patients in the overwhelming number of cases happier.”

I was bullied violently at school and at home by my father for ‘acting like a girl’. I would have loved to have had a supportive family and school as a kid, and being able to access information about trans people would have really helped me through a tough time in my life.

Yet this fabricated row marks a weird sort of victory for the trans community. Ten years ago, the press was obsessed with the myth of transition regret: people who regret changing gender. They are vanishingly rare. For a time in the 2000s, though, *The Guardian* journalist David Batty bent over backwards trying to find transgender regretters.<sup>3</sup> He turned up a few inconclusive cases, but even then their regret was largely down to stigma and discrimination. Julie Bindel, meanwhile, warned against the ‘operation that can ruin your life’.<sup>4</sup>

Fast-forward to 2017 and referrals to gender identity clinics are through the roof, and study after study shows that hormone therapy and genital reconstruction surgery, where appropriate, leaves patients in the overwhelming number of cases happier. So now the ‘debate’ has moved on. To kids.

We’ve been here before. In the 1980s, homophobes had essentially given up their efforts to ban gay sex between consenting adults. So anti-gay bigots found a new way to hate gay people: by dressing up homophobia as a child protection issue. In 1984, *The Sun* called gay rights ‘sick nonsense’, and, two years later, *The News of the World* said Labour councils were encouraging AIDS by ‘telling children that homosexuals living together are as stable as married couples’. In 1986, Tories handed

out leaflets that said: 'You do not want your child to be educated to be a homosexual or lesbian.' *The Telegraph* warned readers about 'a deliberate attempt to molest the sexual education of children' (note the loaded use of 'molest'), while *The Times* condemned the 'malignant cause' of 'extremists' promoting 'sexual propaganda'.

The message was clear: gay people were a threat to children.

Soon after, Section 28 was passed – which effectively banned the 'promotion of homosexuality' in schools. The law was intentionally vague and frightened teachers out of even mentioning gay people, meaning that many failed to act when pupils – like me – suffered homophobic bullying. Section 28 became a symbol of homophobia and galvanised the gay rights movement until it was finally repealed in 2003. A couple of years ago, David Cameron even apologised for it, telling a gay pride rally: 'We got it wrong.'<sup>5</sup>

But what, exactly, started all the media fear-mongering that led to Section 28? Well, in 1983, the *Daily Mail* denounced *Jenny lives with Eric and Martin*, a storybook about a girl who lives with her father and his boyfriend. Just like Peter Bone, bigots like Jill Knight MP were concerned that these educational materials could be accessed by 'children as young as five or six'.<sup>6</sup>

Matthew Todd describes growing up surrounded by media homophobia in his brilliant book *Straight Jacket: How to be Gay and Happy*: 'On a sunny spring day in 1983, standing outside the school hall next to a peeling climbing frame, the biggest realization of my life hit me like the sky crashing down: the way that I was different and these bad words I kept hearing were linked. Gay. Queer. Poof. Pansy. I suddenly understood: that was me. That was what I was.'<sup>7</sup> He was ten.

Stigma is bad enough, but in the case of trans children and their families, I am deeply concerned that misinformation in the media may discourage people from accessing potentially life-saving therapies. Here I would like to debunk some of the more common myths being perpetuated about trans children:

1. You cannot force kids to change gender any more than you can force a child to be

gay. Just like the imagined fears of 'sick' homosexuals 'recruiting' impressionable kids in the 1980s, it is nonsense. I was told in no uncertain terms that I simply could not be a girl. I was forced to be a boy. It did not work. It just made me unhappy. Because you cannot force people to be something they are not.

2. There is no such thing as a 'child sex change', or 'child sex change drugs'. Genital reconstruction surgery is not offered to trans people below the age of 16. In reality, people are generally obliged to wait until they are much older for surgery. Puberty blockers delay puberty so that kids have time to decide what they want to do further down the line.

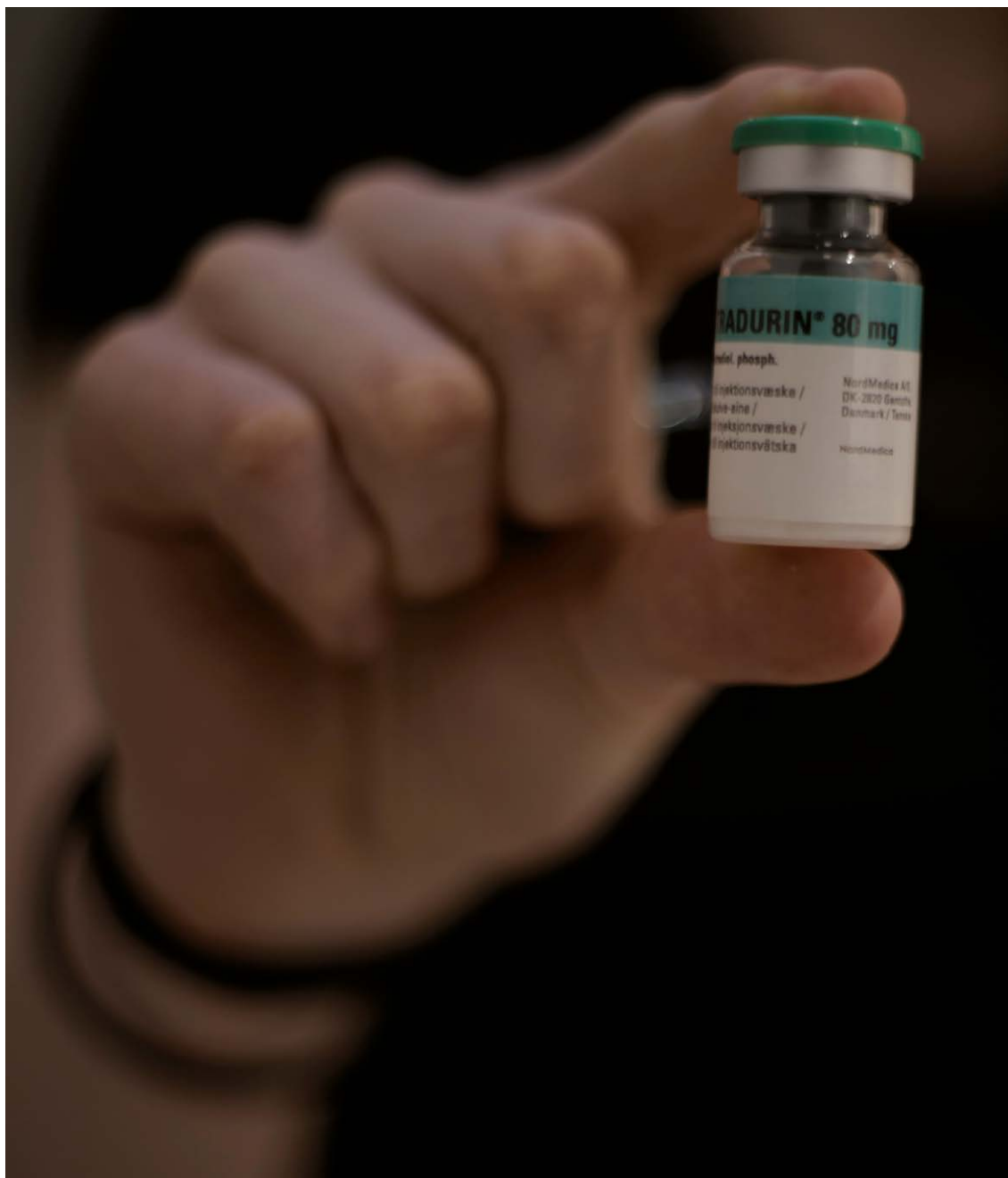
3. There is growing evidence that stigma is a major cause of poor mental health and morbidity. This is what makes stigma whipped up by prejudicial media coverage so insidious. The day after it reported the 'fury' over *Just a Girl*, the *Daily Mirror* ran a story about a 25-year-old trans woman who was hacked to death in Russia. As the *Daily Mirror* wrote: 'The killing took place after the 25-year-old's father Alimshaikh Aliev had told a TV station: "Let him be killed, I don't want to see him. Bring him here and kill him in front of my eyes".'<sup>8</sup> I wonder if the journalists at the *Daily Mirror* realise that the violence and family rejection many trans people still face is precisely why educating people is so important.

4. Trans exclusionary radical feminists frequently appear on news programmes and repeat the lie that 80% of trans kids grow out of it at puberty. That statistic is false and based on bad science. It is one of many examples whereby bigots exploit fabricated 'debates' to spread dangerous misinformation that could mislead parents.

For the sake of children up and down the country, we must not let the press get away with this campaign of scare-mongering. The sea of misinformation and stigma is stopping us from discussing the urgent issue of how to protect trans kids from the bullying and prejudice that causes so many of them to feel suicidal.

Almost half of transgender school pupils in Britain have attempted suicide. One in nine has received death threats. Eight out of ten have self-harmed. But while the trans community is very much in the





Fox and Owl  
**The Things That Make Us...**, 2017  
Still from film. Copyright the artists.  
Photography by Sharon Kilgannon.



Gérard Chauvin and Lanah Shaï  
**Mutation, 2014 – 16**  
 Still from video. Copyright the artists.

media spotlight, and fatuous debates about gender neutral bathrooms dominate newspaper headlines, when it comes to children trying to kill themselves, there is a deathly silence in public discourse.

“ **We desperately need a proper and a responsible, serious conversation about... the relief that appropriate hormone therapy can provide.** ”

Study after study shows how trans people face family rejection, bullying at school, discrimination in the workplace and abuse and violence on the streets. We are more likely to suffer from depression, more likely to kill ourselves, and more likely to be murdered. We also know that there is a large and growing body of evidence that hormone therapies, surgeries, and perhaps more importantly, family support have helped many trans people to lead much happier and fuller lives. These are the facts. Why are journalists not reporting them?

We also know what supporting trans people from a young age looks like. I recently met a 16-year-old trans girl called Ceira, who lives with her parents in Leicester. She is supported by her friends, family and school.

She is happy, healthy and looking forward to her adult life. Ceira is living proof that supporting kids means that they will grow up and flourish. Deny them that support and study after study shows they will go into decline.

But instead of tackling these grave issues, the conversation remains firmly on toilets, and pointless and rude articles declaring that trans women are not real women. Last Spring the *Sunday Times* afforded Jenni Murray four pages to make this selfsame point. She deployed one flawed study in order to cast doubt on the fact that trans people are vulnerable – even though their vulnerability is attested by studies conducted across the world. Time and time again, the trans debate, as conducted by non-trans writers, addresses the suicide rate among young trans people only to undermine the existing research, or to tell people to keep quiet about it.

Worse still, we do not even know how many trans people have killed themselves, precisely because of the stigma being perpetuated by these attitudes – many are still in the closet. We desperately need a proper and a responsible, serious conversation about what and who is causing these children to feel suicidal, what we can do about it, and the relief that appropriate hormone therapy can provide.

# Intersex Existence and Patient Autonomy

Valentino Vecchietti (Intersex rights campaigner, independent academic and author)

Currently, it is estimated that 1.7% of live births have intersex variations.<sup>1</sup> There has been much discussion regarding nomenclature, and in 2006 the medical profession replaced the term 'intersex' with 'disorders of sex development' (DSD), but many intersex people are unhappy to be labelled as 'disorder(ed)' and continue to use the term intersex.<sup>2</sup> People born with intersex variations face grave human rights inequalities in the UK and worldwide. On 1 February 2013 in the UN report: Report of the Special Rapporteur on Torture and other Cruel, Inhuman or Degrading Treatment or Punishment, Juan E. Méndez, the UN recognised that intersex people have been subject to non-consensual medical normalisation treatment. It calls for an end to forced sterilisation, forced hormone treatment, and genital-normalising surgeries:

77. Children who are born with atypical sex characteristics are often subject to irreversible sex assignment, involuntary sterilization, involuntary genital normalizing surgery, performed without their informed consent, or that of their parents, "in an attempt to fix their sex", leaving them with permanent, irreversible infertility and causing severe mental suffering...

88. The Special Rapporteur calls upon all States to repeal any law allowing intrusive and irreversible treatments, including forced genital-normalizing surgery, involuntary sterilization, unethical experimentation, medical display, "reparative therapies" or "conversion therapies", when enforced or administered without the free and informed consent of the person concerned...<sup>3</sup>

“...the UN recognised that intersex people have been subject to non-consensual medical normalisation treatment. It calls for an end to forced sterilisation, forced hormone treatment, and genital-normalising surgeries...”

Despite this, it remains the norm in the UK for the medical profession to practise these non-consensual, normalising, cosmetic surgeries, sterilisations, and hormone treatments. Indeed, the vast majority of interventions are performed for the purposes of avoiding social stigma, and are designed to render intersex bodies invisible in society. From a bioethical perspective, such treatments contravene the 'do no harm' principle. In *Medical Ethics and Law* (2012), Jonathan Herring, a Professor of Law, describes three of the most important rights: 'the right to autonomy'; which he equates with 'the right to bodily integrity'; 'the right to dignity'; and 'the right to life'.<sup>4</sup> The UN report details how the first two of these rights are being ignored, and the third right, 'the right to life', is also being disregarded where screening processes for intersex variations result in terminations. In their poster abstract at the 4th I-DSD symposium in Glasgow, The Outcome of Prenatal Identification of a Sex Chromosome Abnormality, Angela Lucas Herald reports that over a period of 12 years in the Grampian and the West of Scotland regions, 166 positive cases of prenatal diagnosis of a sex chromosome abnormality were made, and of those 166 positive cases 73 (44%) were terminated.<sup>5</sup>

Alarmingly, some hormone treatments also commence in the womb. Prenatal glucocorticoid treatment is currently recommended in J. Larry Jameson et al.'s *Endocrinology: Adult and Paediatric* (2015). Despite noting that prenatal intervention remains controversial, in the section, 'Excess of Male Sex Hormones', in cases of congenital adrenal hyperplasia (CAH) and other variations, which cause virilisation in female foetuses, the authors recommend, 'suppression of the overproduction of androgen in the fetal adrenals can be achieved by providing the mother with an appropriate dose of glucocorticoid.'<sup>6</sup>

The medical profession is not merely concerned with controlling visual differences; in David E. Sandberg et al.'s *Psychological Aspects of the Treatment of Patients with Disorders of Sex Development* (2012) the authors state that, '...the sexual orientation of women with CAH is more often homosexual as compared with the general population.'<sup>7</sup> A commonly used glucocorticoid is dexamethasone. In their article, 'Prenatal Dexamethasone for Congenital Adrenal Hyperplasia: An Ethics Canary in the Modern Medical Mine' (2012) bioethicist and historian Alice Dreger, attorney and human rights advocate Ann Tamar-Mattis, and Professor of Philosophy and Social Policy, Ellen K. Feder, note that the use of dexamethasone, 'has been aimed at preventing development of ambiguous genitalia, urogenital sinus, tomboyism, and lesbianism.' In addition, they clarify that dexamethasone does not prevent an affected child from being born with CAH. Rather, the intention is to cause 'CAH-affected female fetuses to develop in a more female-typical fashion than they otherwise might.'<sup>8</sup> Importantly, they observe that, 'Atypical clitorises and labia generally require no medical intervention for health.' However, undeterred by evidence of the harm caused by genitoplasty surgery,<sup>9</sup> paediatric urologists often perform surgery to 'feminise' atypical clitorises and labia for what they call 'social reasons' including promotion of parental bonding.<sup>10</sup>

In their article, 'Preventing Homosexuality (and Uppity Women) in the Womb?' Alice Dreger et al. again reiterate that the use of prenatal dexamethasone is in part designed to 'prevent affected girls from turning out to be homosexual or bisexual.' They also highlight psychologist Heino Meyer-Bahlburg's postulation that,

'treatments with prenatal dexamethasone might cause girls' behaviour to be closer to the expectation of heterosexual norms.'<sup>11</sup> In summation, they state that, 'use of prenatal dexamethasone treatments for CAH represents, to our knowledge, the first systemic medical effort attached to a paradigm of attempting in utero to reduce rates of homosexuality, bisexuality, and "low maternal interest".'<sup>12</sup>

In the 2013 4th I-DSD Symposium hosted in Glasgow, in the abstract for their poster presentation, 'One for Dex and Dex for All: Challenges in the Management of Congenital Adrenal Hyperplasia (CAH) in a Multiple Pregnancy', S. T. C. Shepherd et al. describe their use of prenatal glucocorticoid treatment in the case of twins. The authors echo previous acknowledgements that the use of dexamethasone in utero is controversial, but despite this, they continue to administer it. This confirms the fact that such treatments are being used in the UK.<sup>13</sup> To date, Sweden is the only country to have discontinued the use of prenatal dexamethasone. There is increasing awareness that the long-term effects are unknown. In addition, dexamethasone was never designed to be used prenatally in utero, and its 'off-label' use in this context is unethical experimentation, as listed in point 88 of the previously mentioned UN report.<sup>14</sup>

Why are intersex people apparently fair game for unethical medical treatment? Why are intersex people situated by healthcare professionals and medical practice as object and not subject in their own healthcare? I believe much of the problem may stem from the issue of consent. Currently, medical practice places the consent to surgery and gender assignment with the parent in a process of 'informed consent'. As I write this, a *BBC News at 10* report, 12.10.2017, has just been broadcast stating that 'Great Ormond Street Hospital is failing intersex children'. The BBC has been told that lack of available information for parents raises, 'doubts as to whether parents have given truly informed consent on behalf of their child before irreversible surgery.'<sup>15</sup>

Further to these indications that current practice is failing to provide ethical care for intersex children and their families, I would also suggest that one's gender identity can never be guessed at, and that the decision of gender identity should be an informed one which comes from the intersex





**Sex hormone test**  
Credit: Jarun Ontakrai  
Source: Shutterstock

individual themselves. Where it is not possible to ask because they are still a foetus, or are a newborn infant, or a child, then let that child grow up intact, as the UN report suggests. By denying the intersex individual the possibility of consent, medical practice situates the intersex person as object in their own healthcare, and precludes patient autonomy. The aforementioned *BBC News* report features an interview with Joe Holiday, who was born with an intersex variation. He learned that his healthy testes had been removed in infancy (effectively sterilising him), on the grounds that it would be easier to bring him up as a girl. Now in adulthood and identifying as male, he takes testosterone hormone replacement, but would not have had to do so if his healthy testes had not been removed.

Another case of non-consensual removal of reproductive organs, is featured in *The Independent's* special report 'Intersex Women Speak out to Protect the Next Generation' (30 November 2013). Sarah Graham says that having been born with an intersex condition and internal testes, which doctors had removed at the age of eight, she was 'put on oestrogen replacement therapy' from the age of 12, but, 'if they had left my body intact, I would have produced hormones naturally.'<sup>16</sup>

By contrast, patient autonomy drives trans people's healthcare pathways. The trans person's sense of gender identity is considered crucial to the healthcare they receive, which focuses upon supporting them to actualise their gender identities: it is not about imposing surgeries, hormones,

or using what is ultimately 'guesswork'. The law supports trans people through the Gender Recognition Act 2004,<sup>17</sup> which, despite some flaws, clearly states that we must infer gender identity (and therefore sex category) not from their birth certificate, but from the trans person's sense of identity. A trans person is therefore entitled to apply for a Gender Recognition Certificate, which is essentially a new birth certificate based upon their sense of gender. In contrast, to assess the sex category of the intersex infant or child, current medical practice relies upon extensive tests with an emphasis on genetics and chromosomes. However, if genetics and chromosomes could predict our gender identities, we would not have trans children. Moreover, trans children exist in schools, as do queer children. There is still stigma, but efforts are being made to educate schools and parents, and to make space for children with variations in gender identity, sexual orientation, and presentation. In respect of the current legal and medical support afforded to trans people, it would be considered prejudicial if a person were to now suggest that queer and trans children should be 'restored' to a heterosexual/cisgender norm in order to fit in with society, or with other school children. Indeed, queer and trans children are acknowledged to have the right to exist. Surely, rather than performing unnecessary, unethical, cosmetic surgeries, and interventions, it is time to support intersex children to also have the right to exist.

# El arca de los cuerpos equivocados

Miquel Missé (Sociólogo y activista trans)

El relato de vida de las personas trans está lleno de metáforas relacionadas con la idea del cuerpo equivocado. Y posiblemente, también el mío esté de alguna forma impregnado de esa idea. Tras la operación se cuenta que 'se ha vuelto a nacer', para explicar el porqué del cambio de género y/o sexo, se dice que 'se ha nacido en un cuerpo equivocado', o que 'uno está atrapado en un cuerpo que no es el suyo'. El cuerpo se vive como un fatídico error de cálculo de la naturaleza, una injusticia inexplicable que nos llevó a nacer en un cuerpo incorrecto. Y por ende, también es fatídico el encuentro a solas con el espejo, la desnudez e incluso la sexualidad. Como está equivocado, se debe cambiar. Y en la espera de ese cambio, se puede maltratar, censurar, esconder, castigar hasta que llegue el deseado.

Cuando parece que está todo perdido y que no vale la pena habitar este lugar, llega Noé, surcando los mares en los que no sabemos bañarnos y nos invita a subir a su arca, con la promesa de llevarnos a un lugar mejor. El arca está llena de otras siluetas, también ensayos fracasados de cuerpos que no funcionan, que están rotos de alguna forma, que no sirven para este mundo. Cuanto más se acerca, más deseamos estar en ella, para emprender el viaje rumbo a una Ítaca nueva, donde ser otros sin que nadie conozca la historia de nuestra travesía. Podemos subir al arca con una sola condición, reconocer nuestro sufrimiento y nuestra diferencia, saber decir que hubo un problema en las maquinarias y que hemos llegado al mundo inacabados. Noé es generoso y nos abre su arca para llevarnos a algún lugar en el que se nos devolverá un cuerpo habitable mediante cirugía y farmacéutica. Hormonas sintéticas que calmaran nuestra angustia, que modificaran el destino de nuestro cuerpo para hacerlo más soportable.

Pastillas, pinchazos y cremas en gel como gomas de borrar.

“ **Hormonas sintéticas que calmaran nuestra angustia, que modificaran el destino de nuestro cuerpo para hacerlo más soportable.** ”

El arca de los cuerpos equivocados llegará a alguna parte. Y tarde o temprano algunos podrán bajar a tierra abandonando en ella esas carcasas pesadas, para vivir al fin en un cuerpo normal. Los cuerpos errados serán fotografiados y analizados, y se escribirán libros para describir tales anomalías. Una inmensa literatura para que puedan encontrarla aquellos que sufren de este mal, el de nacer en un cuerpo equivocado.

Parecería que el problema queda resuelto en cuanto uno finalmente consigue construir su verdadero cuerpo. Pero de hecho, hay un pequeño detalle en la historia del arca que es importante. Para acceder a ella, hay que reconocer antes que nuestro cuerpo está equivocado, creerlo de verdad. Para subir hay que haber entendido que existen cuerpos correctos e incorrectos, y que hemos tenido la desgracia de nacer en uno defectuoso. Ya no es sólo que alguien externo pueda pensar que tenemos un problema, es que nosotros también estamos convencidos de ello. Y por mucho que consigamos tener un cuerpo correcto, hay algo que no podremos cambiar nunca, y es la experiencia de sentirnos diferentes, extraños al resto. El hecho de saber que un día no fuimos normales. Es más, a veces, incluso cambiándolo todo, el estigma y la frustración de haber nacido anormal puede



***Euforia de Género, Barcelona, 2007***  
Credit: Colectivo Guerrilla Travolaka.



acompañarnos para siempre.

Se amontonan las preguntas: ¿es cierto que nuestros cuerpos están equivocados?, ¿es posible vivir sin modificarlos?, ¿es posible modificarlos sin aceptar la idea de que están equivocados?

En mi opinión se dice que están equivocados porque no se ajustan a lo que se espera de ellos socialmente. No es que les pase nada intrínsecamente, de hecho todos los órganos están sanos y funcionan. Pero es la forma de vivir en ese cuerpo lo que nos resulta erróneo. Y la mirada de los demás sobre él, la inmensa literatura de la que hablábamos, la mirada del cine, de los cuentos, de los viajeros del metro, todo nos recuerda que nuestros cuerpos están equivocados. Esas miradas probablemente no desaparezcan en mucho tiempo, pero cada vez más emergen otras. A veces me pregunto qué pasaría si junto al arca encontráramos libros, cine, cuentos, en los que nuestros cuerpos aparecieran rodeados de ideas positivas. Si nos hablaran nuestras familias, amig\*s, maestr\*s, enfermer\*s, vecin\*s, a los que les gusta nuestra diferencia. Si llegaran personas que nos desean en estos mismos cuerpos, sin modificar absolutamente nada.

“ ¿es cierto que nuestros cuerpos están equivocados?, ¿es posible vivir sin modificarlos?, ¿es posible modificarlos sin aceptar la idea de que están equivocados? ”

Ese caleidoscopio de miradas ya existe. Muchos ya las conocemos, y a pesar de ello, nos es muy difícil dejar de soñar con otros cuerpos y no pensar, en la rutina cotidiana, que algo injusto nos ha sucedido. Sin embargo y a pesar de todo, sigo convencido de que podemos resignificarlos, despojarlos de ese lastre de ser incorrectos,

reconquistarlos. Y da igual si para ello hemos necesitado modificarlos. No importa lo que le hayamos contado a Noé para subir al arca. Solo importa si nos lo hemos creído tanto como para acabar odiando nuestra historia. Otras formas de navegar los mares son posibles.

Y finalmente, yo me pregunto porque el cuerpo de las personas trans está equivocado pero no el cuerpo gordo o feo. Al final, la narrativa del cuerpo equivocado parece casi privilegiada al lado de las que se producen para explicar otros cuerpos no normativos. La gordura es una elección, la fealdad es un destino, pero la transexualidad es un error que debe restaurarse. Hay gente que simplemente se merece el cuerpo con el que nació y otra que se merece uno mejor porque el suyo estaba equivocado.

La cuestión de fondo es si las políticas trans deben apostar por promover la modificación corporal como la solución al conflicto de las personas trans o si deben poner de relevancia que no se trata de un problema individual sino estructural. Modificar el cuerpo solo domestica el problema en nuestros cuerpos pero no resuelve la pregunta sobre porque alguna gente se niega a vivir en los cuerpos con los que nació. Modificar el cuerpo domestica el sufrimiento y muchas veces es una cuestión de supervivencia pero no podemos no por eso debemos dejar de ponerlo en cuestión. El simple hecho de que haya personas odiando sus cuerpos o los géneros en los que fueron asignados es francamente dramático y nos desvela la fuerza de las presiones de género y corporales en nuestra cultura (occidental). La cuestión trans no se resuelve en el cuerpo, se resuelve en el imaginario colectivo, flexibilizando los modelos sociales sobre lo que es ser un hombre o una mujer correctos, ampliando nuestro espectro de lo posible, conquistando una mayor libertad para expresar género con matices.



Source: iStock  
Credit: Delpixart



# Il corpo è mio e lo gestisco io? Esperienza trans\* e transito di e tra i generi in Italia

Dr Stefania Voli (Scuola Normale Superiore, Pisa, Italia)

*Da quali norme sono circoscritta nel momento in cui inizio a chiedermi cosa posso diventare? E cosa accade quando inizio a diventare qualcosa che non trova posto nel regime stabilito di verità?*

Judith Butler, *Fare e disfare il genere*

In un quadro europeo non rassicurante in tema di diritti delle persone LGBTIQ, il rapporto del 2015 dell'International Lesbian, Gay, Bisexual, Trans and Intersex Association (ILGA) ha assegnato all'Italia il trentaduesimo posto (su quarantanove paesi) sia rispetto alla categoria 'hate crime and hate speech' sia 'legal gender recognition and bodily integrity'.<sup>1</sup> In particolare, per quanto riguarda le persone trans\*, l'Italia si trova in cima alle classifiche (seconda solo alla Turchia) per l'alto numero di persone trans\* uccise ogni anno: 33 tra il 2008 e il 2015. Al terzo posto, con cifre nettamente inferiori (otto), la Spagna.

In generale l'Italia è uno dei paesi dove le condizioni di vita per le persone trans\* sono tra le più complesse (e a rischio): oltre alle violenze e alle discriminazioni quotidiane, persistono ampie difficoltà nell'accesso al mercato del lavoro (aggravate dalla lunghezza dei procedimenti per l'ottenimento del consenso giuridico per gli interventi chirurgici di cambio di genere e anagrafico). Tutto questo mentre non c'è grado e articolazione delle istituzioni scolastiche che negli ultimi anni non sia stato investito dalle posizioni neo-fondamentaliste e reazionarie dei cosiddetti 'no-gender', autoproclamati difensori della 'famiglia naturale' e dell'altrettanto supposta naturalità della differenza tra i (due soli ritenuti leciti) sessi: posizioni, queste, attraverso le quali si articolano e perpetuano visioni e pratiche fortemente omo-lesbo-transfobiche (oltre che razziste e xenofobe) interessate alla conservazione

dell'eteronormatività e alla repressione di qualunque espressione ed esperienza di genere che ecceda quelle tradizionali.<sup>2</sup>

Tuttavia, più di recente, alcuni eventi hanno contribuito a mutare in senso positivo la situazione delle persone trans\* in Italia. Tra questi, l'iniziativa di alcune corti ha reso possibile disarticolare 'a colpi di sentenze' una legge – la n. 164/1982 Norme in materia di rettificazione di attribuzione di sesso –, negli anni oggetto di interpretazioni restrittive e coercitive nei confronti delle scelte di transizione di genere degli individui.<sup>3</sup> Sentenze, queste, che hanno avuto il merito di porre fine alla consuetudine giudiziaria dell'imposizione degli interventi chirurgici come requisito necessario al fine della rettifica del genere anagrafico, considerandoli lesivi dell'equilibrio e della salute psico-fisica del soggetto (a loro volta diritti inviolabili della persona).<sup>4</sup>

Svolta definitiva in questo senso è giunta il 5 novembre 2015, quando la Corte Costituzionale ha stabilito (con la sentenza n. 221/2015) la non obbligatorietà dei trattamenti chirurgici.<sup>5</sup> Al contrario, i giudici hanno affermato come questi siano solo una delle 'possibili tecniche per realizzare l'adeguamento dei caratteri sessuali', da affidare alla libera scelta della persona in transizione. Per la Corte 'l'esclusione del carattere necessario dell'intervento chirurgico ai fini della rettificazione anagrafica appare il corollario di un' impostazione che – in coerenza con supremi valori costituzionali – rimette al singolo la

scelta delle modalità attraverso le quali realizzare, con l'assistenza del medico e di altri specialisti, il proprio percorso di transizione': in teoria, sono dunque gli individui, la loro autonomia e il 'pieno benessere psichico e fisico' ad occupare il centro del discorso e delle pratiche giudiziarie.<sup>6</sup> Tuttavia, seguendo le parole della sentenza stessa, emerge come tale passaggio non avvenga secondo un semplice principio di autonominazione e autodeterminazione dei soggetti interessati.<sup>7</sup> Al contrario, il cambio di genere resta un percorso patologizzato e per questo blindato all'interno di precisi iter clinici e legali,<sup>8</sup> lungo cui i soggetti intrattengono una negoziazione continua, con e contro i poteri e i saperi medico-legali deputati al controllo della 'buona riuscita' di ciascun singolo passaggio della così definita 'riattribuzione', o 'riassegnazione' di genere fino al riconoscimento definitivo (giudiziario) dell'avvenuto e certo approdo verso il genere opposto.

Il raggiungimento dell'obiettivo' del cambio di genere diventa così un processo al centro del quale non si trovano più i trattamenti chirurgici, ma quelli ormonali. A partire dagli anni Venti e Trenta del ventesimo secolo, gli scienziati hanno storicamente assegnato agli ormoni cosiddetti sessuali il ruolo di trasmettitori chimici di segnali finalizzati a stimolare il 'corretto' sviluppo di mascolinità o femminilità. In quanto veri e propri agenti di mascolinità e femminilità, questi sono dunque responsabili dell'assemblaggio di una serie di caratteristiche estetiche, anatomiche, comportamentali ed emozionali esclusive o dell'uno o dell'altro sesso.

Nel nuovo quadro giuridico tracciato, agli ormoni 'sessuali' viene così quasi completamente delegata la possibilità del raggiungimento di un assetto di caratteri sessuali 'secondari' e di valori ormonali compatibili con un'estetica e un livello ormonale certamente e naturalmente femminile o maschile, considerati tali poiché equiparabili a quelli convenzionalmente posseduti (secondo precisi parametri scientifici di riferimento) da donne e uomini cisgender.<sup>9</sup> E questo nonostante, come

afferma il filosofo Paul B. Preciado, la questione della quantità 'normale' di testosterone prodotto dalle persone cisgender sia strettamente legata alla definizione culturale e politica della differenza di genere.<sup>10</sup>

“ **Attorno al tema della patologizzazione dell'accesso alle terapie ormonali... sembra... innestarsi la più complessa riflessione circa l'autodeterminazione dei soggetti...** ”

In Italia i trattamenti ormonali per la transizione di genere prescritti dagli endocrinologi dei principali centri e consultori dedicati alla transizione di genere seguono le linee guida indicate dalla Endocrine Society e dagli Standard of Care del WPATH (SoC-7) della World Professional Association Transgender Health (WPATH),<sup>11</sup> a loro volta traccia di riferimento per le linee guida dell'ONIG (l'Osservatorio Nazionale Identità di Genere).<sup>12</sup>

Nei protocolli per il cambio di genere, gli ormoni cosiddetti 'sessuali' sono dispositivi biochimici assunti legalmente sotto forma di farmaci, che – in quanto risultati di una scienza biomedica fortemente radicata all'interno del paradigma eterosessuale – non sono prodotti specificatamente per la transizione di genere, ma per altre tipologie di bisogni, 'disturbi' e 'disfunzioni' ormonali (per esempio irsutismo, contraccezione, problemi erettili, acne, menopausa, mancanza di desiderio sessuale). Tutto questo trova immediato riscontro nei foglietti illustrativi di tutti i farmaci prescritti per il transito di genere: tra le indicazioni terapeutiche contenute non è mai menzionato il percorso di modificazione di genere, dando quindi per scontato – e in alcuni casi anche indicando specificatamente – che gli e le utilizzatori/ utilizzatrici siano esclusivamente pazienti cis-uomini e cis-donne che stanno affrontando cure ormonali per disturbi correlati all'appartenenza sessuale





*Il corpo è mio è mio e lo gestisco io,*  
LGBT Pride (Rimini, 2017).



Fox and Owl  
**The Things That Make Us..., 2017**  
 Still from film. Copyright the artists.  
 Photography by Sharon Kilgannon.

biologicamente definita (in caso contrario, per altro, l'acquisto legale di tali farmaci non sarebbe possibile).<sup>13</sup>

Attorno al tema della patologizzazione e dell'accesso alle terapie ormonali (e di tutti gli altri trattamenti medici e non, che intervengono nel percorso di cambiamento di genere) sembra dunque innestarsi la più complessa riflessione circa l'autodeterminazione dei soggetti, sempre in bilico tra il loro controllo (attraverso i saperi e poteri medici) e l'auto-legittimazione e auto-gestione dei desideri individuali di modificazione corporea e di genere.

In conclusione, è possibile affermare che la sentenza 221/2015 della Corte Costituzionale, sganciando il diritto ad avere documenti corrispondenti al genere desiderato dall'aspetto e dalla funzionalità genitale, contiene in sé una parziale rivoluzione delle

possibilità di incorporare l'esperienza del transito di genere, i cui tratti sono ancora difficili da scorgere con chiarezza. Ciò che intanto è possibile ipotizzare, è che gli organismi preposti alla gestione del cambio di sesso si troveranno a fare i conti con un più ampio margine di autodeterminazione (dei tempi e delle forme del transito)<sup>14</sup> rispetto al passato. Tuttavia, la persistenza della matrice patologizzante e la procedure che ad essa corrispondono, basate su prestabilite interpretazioni, intese e protocolli medico-legali, rappresenta un ostacolo tanto alla possibilità di un 'gender pluralism',<sup>15</sup> quanto alla valorizzazione (e alla non discriminazione) delle esperienze che decidono di collocarsi, in quanto corpi de-gendered in uno spazio altro rispetto al binarismo, e per questa ragione avvertite esternamente come 'ambigue', 'ibride', 'aliene', 'outlaw'.<sup>16</sup>

## Meet the team

The *Transitional States* team consists of:

**Chiara Beccalossi**

Project leader

**Giulia Casalini and Diana Georgiou**

(Arts Feminism Queer)

Curators of the video art exhibition

**Natalie Angel**

(Server PR)

Public relations

**Chloe Unsworth**

Public engagement officer

**Joy Knight**

(University of Lincoln)

Administrative support

**Silvia Bertolissi**

Art director (website)

**Simone Pisci**

Visual designer (catalogue)

**Isabel Davis and Jo Winning**

(Centre for Medical Humanities,

Birkbeck University of London)

Public discussion event organisation,

London, UK

**Simona Marchesi and Miquel Missé**

Event and exhibition organisation,

Barcelona, Spain

**Porpora Marcasciano and Mario Di Martino**

(Movimento Identità Transessuale)

Event and exhibition organisation,

Bologna, Italy



# Notes



## **Transitional States: Hormones at the Intersection of Art, Life and Politics**

**Dr Chiara Beccalossi**

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## **Documenting (Im)material Forces**

**Giulia Casalini and Diana Georgiou**

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**Prof. Celia Roberts**

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**Dr Chiara Beccalossi**

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- 5 J. Meyerowitz, *How Sex Changed. A History of Transsexuality in the United States* (Cambridge, MA: Harvard University Press, 2002), 16.
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**Dr David Andrew Griffiths**

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### **Hormones, Feminisms and Resistance**

**Dr Hera Cook**

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## Hormones and Clinical Practice

Dr Christina Richards

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## How the Media Lies about Hormone Therapy for Trans Children

Paris Lees

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## Intersex Existence and Patient Autonomy

Valentino Vecchietti

- 1 Intersex people are born with sex characteristics (including genitals, gonads and chromosome patterns) that do not fit typical binary notions of male or female bodies. Intersex is a form of bodily diversity. It is not a form of gender identity. Like all people, intersex people can have a diverse range of gender identities. Just as with any other member of the general population, they can be heterosexual, or be part of the LGBT community. The term LGBTI recognises the alliance intersex people have with the LGBT population.  
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- 16 <http://www.independent.co.uk/news/uk/home-news/special-report-intersex-women-speak-out-to-protect-the-next-generation-8974892.html>
- 17 Gender Recognition Act 2004 [www.legislation.gov.uk/ukpga/2004/7/contents](http://www.legislation.gov.uk/ukpga/2004/7/contents)

### **Il corpo è mio e lo gestisco io? Esperienza trans\* e transito di e tra i generi in Italia**

**Dr Stefania Voli**


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- 3 Una panoramica sulle sentenze citate [www.articolo29.it/bibliografia-identita-di-genero/transessuali/autorizzazione-alla-rettificazione-anagraficatrattamenti-medico-chirurgici-necessarimerito-e](http://www.articolo29.it/bibliografia-identita-di-genero/transessuali/autorizzazione-alla-rettificazione-anagraficatrattamenti-medico-chirurgici-necessarimerito-e) [www.articolo29.it/2015/tribunale-genova-sterilizzazione-coatta-delle-transessuali](http://www.articolo29.it/2015/tribunale-genova-sterilizzazione-coatta-delle-transessuali)
- 4 Tali sentenze sono in linea con i *Yogyakarta Principles on the Application of International Human Rights Law in Relation to Sexual Orientation and Gender Identity* (2006), presentati al Consiglio ONU per i Diritti Umani nel 2007.
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- 6 Sentenza e articolo ai siti web: [www.articolo29.it/2015/la-consulta-mette-la-parola-fine-alla-sterilizzazione-coatta-delle-persone-transessuali/#more-11000](http://www.articolo29.it/2015/la-consulta-mette-la-parola-fine-alla-sterilizzazione-coatta-delle-persone-transessuali/#more-11000) e [www.articolo29.it/corte-constituzionale-sentenza-n-221-del-5-novembre-2015](http://www.articolo29.it/corte-constituzionale-sentenza-n-221-del-5-novembre-2015)
- 7 Si sottolinea come lo stesso doppio registro si ritrova nella sentenza della Corte di Cassazione (n. 15138/2015).
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La traduzione italiana è scaricabile al link [www.onig.it/drupal/?q=node/57](http://www.onig.it/drupal/?q=node/57)
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