Lennart Nilsson's *A Child Is Born*: The Many Lives of a Best-Selling Pregnancy Advice Book

By Solveig Jülich

Abstract

This article examines the circulations and transformations of photographer Lennart Nilsson's pregnancy advice book Ett barn blir till (A Child Is Born) through its five Swedish editions from 1965 to 2009 as well as some of the translations in English and other languages. Published by Bonnier, the leading media company in Sweden, the book combines images and texts to dramatise the story of conception, foetal development and pregnancy. In particular, the aim is to explore how various commercial, cultural and material processes have co-produced and changed the identity of A Child Is Born. Inspired by research on the biography of things, the article traces the life-course of the book and the photographic material it includes. Two principles of transformation are emphasised. In the first process, the book, although undergoing significant changes, preserved a material and discursive unity and moved in relatively fixed domains. This movement occurred in relation to an origin that can be understood in terms of creativity, authorship and copyright. The second process did not require the integrity of a creative work. Rather, it was the intense features of the book and its images, their affective and iconic power, which enabled the circulations and appropriations. It is argued that Nilsson's book could be described as a thoroughfare for images and texts in constant motion, instead of a fixed and stable object. Entangled in a culture of circulation, it has taken on a dynamic of its own and has moved as much through accident as through design. In these changes, the book has become self-reflexive in its adjustments over a range of arenas and milieus. The life of (the images in) A Child Is Born encompasses many lives, each ensnared in the trajectories and transformations of others.

Keywords: Lennart Nilsson 1922–, *A Child Is Born*, reproductive medicine, medical photography, pregnancy advice books, book and media history, 20th-century history, Sweden

Jülich, Solveig: "Lennart Nilsson's *A Child Is Born*: The Many Lives of a Best-Selling Pregnancy Advice Book", *Culture Unbound*, Volume 7, 2015: 627-648. Published by Linköping University Electronic Press: <u>http://www.cultureunbound.ep.liu.se</u>

Introduction

In May 2010 Fotografiska, the new museum of photography in Stockholm, opened with an exhibition displaying pictures of human embryos and foetuses by the Swedish photographer Lennart Nilsson.¹ It was entitled *Ett barn blir till (A Child Is* Born), as was his best-selling pregnancy advice book, first published in 1965 and issued in its fifth edition in 2009. The introductory text, displayed at the entrance, stated that the curator had taken 'into consideration the visual culture of our time', noting that these enlarged photographs 'direct the scientific text instead of illustrating it'. The exhibition sought to 'free the images further from the narrative of the book'. In this way, 'released from the context, the photographs may be viewed as individual images or in groups, in order to allow for new comparisons and associations'. Additionally, the large format of the prints accentuated their iconic power: 'We will never fully grasp what sparks the creation of life; however Nilsson's photographs have brought us a bit closer to the mystery'. The curator's statement is interesting both for its explicit aim to update the visual style of the book and for exploiting the specific quality of the exhibition medium to increase the impact of the images. However, this exhibition is but the most recent episode in the history of A Child Is Born.

Born in 1922, Nilsson has no other formal education than elementary school. During the 1940s he established himself as a freelance press photographer, working on commission for Swedish and international picture magazines. In the early 1950s he took a series of images of human embryonic and foetal specimens for an article arguing against the existing law on abortion in Sweden (Jülich 2010, Jülich 2016a). He continued to work on documenting human reproduction, and in 1965 he won international fame with the publication of the photo essay 'Drama of Life before Birth' in the American Life magazine, soon followed by the release of A Child Is Born (Jülich 2015a). From about 1970 his laboratory with photographic and technical equipment has been housed at Karolinska Institutet, the Nobel Prize-awarding medical university in Stockholm (Jülich 2014a). Since then Nilsson's spectacular pictures of the micro worlds of the human body and nature have been circulated between various media and contexts (Jülich 2013, Jülich 2015b). In 2009 the Swedish government awarded him the honorary title of professor for his 'unique and still ongoing lifework in the service of knowledge' (Government Offices of Sweden 2009).

Feminist researchers and critics have credited Nilsson's work with enormous significance. Above all, they have focused on the ideological meanings of the foetal images. The cultural pervasiveness of the *Life*-magazine pictures has led Barbara Duden to deem them 'part of the mental universe of our time' (Duden 1993: 14). Following her, several scholars have drawn attention to the photographer's tendency to depict the foetus as separate from the pregnant woman's body and argued that this has supported the pro-life movement in the USA and Britain from the 1980s (Franklin 1991: 195–196, Stabile 1992: 183–190, Berlant 1997: 105–111). More

recently, Nina Lykke and Mette Bryld have offered a nuanced understanding of Nilsson's work, emphasising that in Sweden the photographs were also used by early-feminist sex educators such as Maj-Briht Bergström-Walan and Birgitta Linnér, belonging to the pro-choice side (Lykke & Bryld 2003: 175–211, Lykke & Bryld 2004: 99–101). They have also discussed two versions of a science documentary film on human reproduction from the early 2000s that built on Nilsson's imagery to demonstrate an awareness of feminist critiques in the USA that was lacking in the Swedish original (Lykke & Bryld 2008).

However, these analyses do not fully account for the complexity of the longer history of Nilsson's pictures of embryos and foetuses. For one thing, it is no easy matter to grasp his intentions and motivations. He himself has been reluctant to profess his standpoint concerning abortion and he has made vague and different statements during the years (Jülich 2010, Jülich 2016a). We cannot know for sure that he personally was against abortion but, as I have shown in an earlier study, he contributed pictures to anti-abortion campaigns led by prominent Swedish gynae-cologists and doctors in the 1950s and early 1960s. Further, while it seems safe to say that Nilsson, or rather his imagery, has played an important part in the reformed sex education in Sweden, there is no evidence that this reflected an engagement for feminism and pro-choice movements. Rather, these different connections and the contradictions involved must be understood in their historical context, particularly the economic conditions for making and sustaining a photographic career in a changing media landscape and society.²

This essay examines the circulations and transformations of A Child Is Born through its five editions from 1965 to 2009 as well as some of the translations in English and other languages.³ Although reportedly the best-selling illustrated book ever issued (Januszczak 2006), it has received less scholarly attention than 'Drama of Life before Birth'.⁴ Published by Bonnier, the leading media company in Sweden, the book combines images and texts to dramatise the story of conception, foetal development and pregnancy. The first edition included 16 of the embryonic and foetal photographs that were featured in the 1965 *Life* magazine article as well as a series of images depicting a woman as her pregnancy progresses. Subsequent editions contained new and other kinds of material. Also, the format has changed several times. By highlighting this multilayered history of A Child Is Born I wish to contribute to a growing historical research field that has begun to show that embryos and foetuses were on display to larger audiences well before Duden's 'public foetus' emerged and the mixed media involved in the communication of human reproduction in a long term perspective (Buklijas & Hopwood 2008, Dubow 2011, Hopwood 2015, Hopwood et al. 2015).

In particular, the aim of this article is to explore how various commercial, cultural and material processes have co-produced and changed the identity of *A Child Is Born*. Inspired by research on the biography of things, I will trace the life-course of the volume and the photographic material included in it.⁵ This will involve less engagement with the content of the book but I will view it as a material and affective object that exists and operates within contexts that shift and change over time. One advantage of this approach is that it does not favour any single point in an object's life: its production, distribution or reception (Lash & Lury 2007: 19–20). It lies close at hand to privilege any one of these moments so that it becomes the determining factor which decides the meaning of the product in every other context. Instead, the notion of the biography makes it possible to highlight the book (and its images) as part of an ongoing process of production, circulation, use and meaning. As such, books and photographs are socially salient and emotive objects, not merely passive entities in these processes (Edwards & Hart 2004: 4, Smith 2012: 10–11). In other words, Nilsson's bestseller was not only ascribed meaning but in itself had effects as it circulated through different social and cultural milieus. This also suggests that the relationship between the book and people engaged in its making, circulation and uses was dynamic and historically variable (cf. Lash & Lury 2007: 16). My concern, then, will be to follow A Child Is Born along its biographical trajectory: how was the book transformed – and importantly what effect did it have – from one period to another, from context to context?

In pursuing the biography of *A Child Is Born* I have collected and analysed a wide range of primary sources from the early 1950s to the present. I was not able, however, to gain access to Nilsson's private and company archive collections and was informed that documents had been purged from the Bonnier archive.⁶ First, I have studied some of the changing material aspects of the book in its various editions in Swedish as well as some of the translations. Second, I have examined the making and marketing of the book, in part by conducting semi-structured interviews with Nilsson's co-authors and key figures in the Bonnier Publishing House.⁷ Third, to describe the uses, interpretations and criticisms of the book and its images, I have consulted picture magazines, newspaper reviews and debates, sex education reports and handbooks, anti-abortion material, and feminist discussions. In these ways, then, I have tried to build a rich description of the historical movement and transformation of this object in time and space as well as from several points of view. Through the mapping of its trajectory I have increasingly come to understand *A Child Is Born* as a book with not one, but many lives.

A hybrid book

A Child Is Born has been published in five different Swedish editions (1965, 1976, 1990, 2003 and 2009) that have been translated into more than twenty languages. In particular, it has found its way into British and American markets.⁸ The first and second editions were co-authored by Axel Ingelman-Sundberg, professor and chief physician at the department of obstetrics and gynaecology at the Sabbatsberg Hospital in Stockholm, his wife Mirjam Furuhjelm, head of the endocrinology laboratory at the same hospital, and Claes Wirsén, a senior lecturer at the department of

histology at the Karolinska Institutet. Ingelman-Sundberg and Furuhjelm were responsible for the sections on practical advice on pregnancy, and Wirsén wrote the sections explaining prenatal development. The texts for the third, fourth and fifth editions were written by Lars Hamberger, professor of obstetrics and gynaecology at Gothenburg University.⁹

The five editions are very different from each other. Both images and texts have changed in a substantial way, and these transformations have been very much part of the identity of the book. Indeed, the newness of each edition was underlined on the dust jackets. The first edition was said to be a globally sensational and unique documentation of life before birth (1965: back cover). As stated on the back of the 1976 edition 'the subject is, of course, the same' but the text had been rewritten and most of the images had been replaced. The 1990 edition was presented as 'a new, completely modern book about how a child is born' (dust jacket). In 2003 it was declared that '[a]lmost all of the images are new but some of the classics are there' (dust jacket).

This marketing of the editions went hand in hand with the employment of the rhetoric of scientific progress and technological mastery. Symptomatically, the first edition credited the photographic genius of Nilsson for opening 'a world that had been hidden' (1965: back cover), and the subsequent editions referred to new devices that had allowed him to reveal never-seen details of the process of conception, fertilisation and implantation (1976: 4, 1990: 209, 2003: 236, 2009: 217). In the 1990 and 2003 editions the story of how *in vitro* fertilisation had helped people to become parents played an important part. On the dust jacket of the 2009 edition it was implied that the book documented the 'astonishing progress' achieved by research on human reproduction during the last decades: 'A Child Is Born is the most important illustrated work on human reproduction since the invention of photography.'

In earlier research, these changes of images and texts over time have primarily been analysed from feminist perspectives. Sandra Matthews and Laura Wexler, for instance, have noted that the first three English editions presented different images of heterosexual romance and sexuality, the working pregnant woman, and maternal health and care (Matthews & Wexler 2000: 162–163, 167–170). Moreover, they have argued that the cover pictures reveal a shifting relationship between the foetus and the pregnant woman. On the front cover of the 1966 edition the foetus was pictured as a spaceman, floating in a disembodied amniotic sac (the Swedish edition had this image on the back instead). This was the same picture as the one featured in the photo essay 'Drama of Life before Birth' in *Life* magazine (Nilsson & Rosenfeld 1965). The cover of the 1976 edition showed a close-up of a foetus sucking its thumb. In the next edition this foetus had been copied into an image of a pregnant woman's belly. According to Matthews and Wexler these covers describe a sequence that establishes the foetus as an independent individual (Matthews & Wexler 2000: 163, 197). Although they do not go into details, they clearly see this

shift in the light of the emergence of the American anti-abortion movement and the notion of foetal personhood.

However, rather than exploring these changes in ways of representing human reproduction and pregnancy I wish to focus on some of the material aspects of the book. The 1965 edition was fashioned as an advice book for expectant mothers. It can be described as a hybrid between photographic documentation of embryological development and practical pregnancy advice. The three subsequent editions were also packaged as advice books, offering visual information and counselling. The fifth edition of 2009, however, broke completely with this format. It came out in two versions, one square and smaller in size and one designed as a coffee table book. In both cases the back cover presented it as 'Lennart Nilsson's unique photographic story – a universal introduction to the miracle of life'. It addressed itself not only to parents-to-be but 'to all who want to take part in the wonder that Lennart Nilsson has captured' (quotations from the English edition). A new introduction underlined the break with the earlier format. The former editions (except the third edition) were provided with a preface written by the scientific co-authors and Nilsson's acknowledgements (usually at the back of the book) to people who had helped him produce the photographs. Instead, the 2009 edition had an introduction written not by a gynaecologist but by a picture editor, Mark Holborn, who had worked previously with internationally renowned photographers (Goldin 1986, Mapplethorpe 1996) and also produced books on topics such as Soviet propaganda (Holborn 2007). The distinct scientific framing of the first edition had thus changed into a fine-art packaging.

Significant changes in the quantity, character and motifs of the photographs as well the visual technologies employed had also been made. The 1965 edition contained around 150 images, including 50 in colour. About 40 showed a young woman and her husband during the different stages of pregnancy and after the birth of their child. In the subsequent editions the number of images (in particular, additions of images of several new couples in different scenarios) had increased, and in the 1990 and 2003 editions almost all were in colour. In the first edition most of the photographs had been taken with conventional cameras equipped with special lenses. The second edition included numerous coloured scanning electron microscope images. In addition, the third and fourth editions contained images captured by a mix of techniques: from endoscopy, ultrasound, magnetic resonance imaging, fluorescence microscopy to thermography. The fifth edition had been purged of much of this diversity. For instance, there were no ultrasound images in this book.

The 2009 edition departed from earlier editions in several other respects. Strikingly, it contained fewer images, only about 90, but instead they were in a larger format, often covering a page or the spread. Of these images, 15 were in black-andwhite from the 1965 edition. In the 2009 edition there were no images at all of pregnant women or parents-to-be. It opened with a series of the earliest photographs, followed by sections on the egg, the sperm, conception, pregnancy and birth. In each section the images were presented first and they were followed by a short text developing the theme.

This brief review of the five different editions of A Child Is Born published between 1965 and 2009 can be summarised in two general trends. First, the book was transformed from a pregnancy advice book that relied on confidence in scientific expertise to a coffee table book with artistic aspirations. The shift towards art was also evident in the sparse selection of photographs, including several of the 'classic' black-and-white photographs while excluding the more 'mechanical' ultrasound images from the fourth edition as well as didactic drawings. It was also indicated by the placement and increasing size of Nilsson's name on the cover and the first pages. In the first edition all co-authors were given the same prominence. The 2009 edition, in contrast, placed Nilsson on the cover, underlining that he was the author of the book. Second, A Child Is Born moved from the specific to the universal, emphasising the perceived shared meanings of the images. The text was given less importance than the images and the portraits of the couples and other people in clothing and hairstyles from different decades were excluded. These may have been considered to reflect transitory trends in fashion and, instead, only the 'timeless' images of embryos and foetuses were selected. Like the exhibition at Fotografiska in Stockholm, then, the last edition of Nilsson's book was designed to enhance the iconic qualities of the photographs. But how and when did this multifaceted object come to life?

Making a book on reproduction and pregnancy

The biography of A Child Is Born has no simple beginning. Even if it was released in 1965, the images in the book can be linked to a history that goes back much further. As suggested by Sarah Franklin and other scholars, Nilsson's embryological images belong to a longer anatomical tradition of staging and displaying human specimens that made its way into popular culture during the decades after the Second World War (Anker & Franklin 2011: 107-108, Morgan 2009: 192-193). More specifically, the launching of new picture magazines such as *Life*, *Look* and, in Sweden, Se ('See') created a demand for spectacular photographs from modern life, including scientific and medical topics (Lindberg 2004, Hansen 2009). In addition, there was a boom in pregnancy advice books in Europe and the USA during this period (Matthews & Wexler 2000: 151, 162, Sauerteig 2009: 129-160). In even broader terms, the biography of Nilsson's book can be related to particular historical conditions in post-war Sweden, including a relatively liberal abortion law, the emergence of foetal research as well as strong public faith in scientific and medical progress (Jülich, in progress). At a particular historical juncture, these trajectories intersected to produce a new material object, A Child Is Born.

This can be highlighted through contextualising Nilsson's first story on human reproduction. Although not widely known or discussed, the photographer embarked on his project on documenting human reproduction at a time characterised by bitter abortion disputes (Jülich 2010, Jülich 2016a). In 1952 he was commissioned to produce a story on the controversial gynaecologist Per Wetterdal, who was professor and chief physician at the department for obstetrics and gynaecology in Sabbatsbergs hospital in Stockholm. Wetterdal was strongly opposed to the change in the law that permitted abortions on socio-medical grounds and had therefore refused to perform them. Supported by Axel Ingelman Sundberg, Mirjam Furuhjelm and other colleagues he ran a campaign to rouse public opinion for more restrictive legislation. In spite of Wetterdal's dislike of the 'sensational press' Nilsson was permitted to bring his camera to photograph the hospital's collection of embryonic and foetal specimens. Eventually an article featuring an enlarged photograph of a five-monthold foetus acquired through legal abortion appeared in 'See' under the heading 'Why Must the Foetus Be Killed?' (Nilsson & Hillgren 1952). Here, as in Nilsson's later works, image and text worked together to emphasise the human features of dead embryos and foetuses.

This anti-abortion article became the press photographer's gateway to the medical world. For about ten years and with financial support from the Bonnier publishing house, Nilsson collaborated with researchers and doctors at Sabbatsberg and other gynaecological departments at the large hospitals in Stockholm to photograph the different stages of foetal development (Jülich 2016a). These images were made possible either through surgical interventions due to ectopic pregnancies and miscarriages or legal abortions. This was before informed consent had been established as an ethical principle and oral evidence from my interviews with key medical actors suggests that the women undergoing operations were not asked about their participation in the photographic project (Jülich, in progress). During the process several articles were published in 'See' and other illustrated magazines, and some of them were explicitly anti-abortion. As recently as 1964 Nilsson contributed to a report in another Bonnier magazine that used a close-up of a legally aborted foetus to 'shock' its readers (Nilsson & Uddén 1964).

The conversion of the hospital's operating theatre into a photographic studio was thus a prerequisite for the imagery that came to be part of *A Child Is Born* (Jülich 2014b, Jülich 2016b). Various sophisticated techniques such as magnification, back-light and colour were used to prompt the viewers to wonder at the beauty and formal perfection of the foetuses. In other words, the 'space' that the famous 'Spaceman' was said to float in was not the inside of the body but a tank of saline solution, and the details of the image that resembled distant stars and planets where water bubbles and fragments from the placenta. That many embryos and foetuses remained inside their inner membranes and were still anchored in the womb through the umbilical cord contributed to the impression that they had been photographed inside the body.

When the Bonnier Publishing House decided to produce A Child Is Born the 'times were a-changin' (Jülich 2015a). By the early 1960s students and political

groups had started to demand free abortion and reform of sex education in schools. Two state commissions were appointed in Sweden to investigate and present reforms in these areas. No doubt, this affected the repackaging of Nilsson's images as sex education and practical pregnancy advice by the editors at Bonnier. The photographer himself, at least until the completion of the book, declared in interviews that he was hoping his images of embryos would 'prevent many unnecessary abortions' ('Kungafonden' 1964). The publishers ensured however that any explicit reference to this topic was excluded from the volume.

After several years of work, *A Child Is Born* was issued during the autumn of 1965 to allow enough time to promote the book before Christmas (Tolander 2008, Wirsén 2008). The photographer and his images on human reproduction were already well-known through the publication of 'Drama of Life before Birth' in *Life* magazine earlier that year (Nilsson & Rosenfeld 1965). The daily newspapers were quick to report on Nilsson's international success and this was a boost for Bonnier's marketing campaign for the book (Jülich 2015a). Since the company not only dominated book and magazine publishing but was also the largest shareholder in several daily newspapers, there were various channels for reaching the target group. Above all, their promotion focused on the spectacular qualities of the images and included everything from advertisements in the press to book-store displays. 'See' and two other magazines belonging to the Bonnier Group also presented selections of the material from the forthcoming book, mixing and framing it in different ways. The campaign was successful, and the publication of Nilsson's book became a feature covered by television and several newspapers.

Publication can be described as the moment in the biography when the object acquired integrity as a creative work. Up until then it had existed in fragments, i.e. the visual material was part of the body of photographs that Nilsson had produced and circulated in the Bonnier magazines and *Life*. But the outcome of this integration should not be understood as a static object. Once the book (with its images) was ready, it could be circulated, used and appropriated by different people, groups, organisations and companies.

Circulating (the images in) the book

A Child Is Born was adapted from the start to an international market. Prior to its release, Bonnier contacted publishers abroad and proposed a deal for a translation of the Swedish edition (Grenholm 2008, Tolander 2008). Beginning with the second edition, they could offer a novel production model. All sheets of images were printed at the same time so that the sheets with texts in each language could be added. As colour images were expensive, this procedure reduced the overall production costs and made translations more economically viable.

Despite this production model, local considerations threatened the unity of the book. Bonnier accepted, for example, the production by the French, Russian and

Israeli publishers of their own texts as long as they could be set as the format specified. The spreads on the other hand were not to be changed. Nevertheless, protracted discussions took place with foreign publishers who wanted to replace pictures. The Japanese publisher did not want pictures of childbirth where women's genitals were visible (Grenholm 2008). In Holland, where home birth was common, it was considered that too much was devoted to 'the time to go to the hospital' (Hamberger 2009). In the USA the black man/white woman couple on the inside cover of the third edition was viewed as provocative since it indicated mixed-race marriage. According to co-author Lars Hamberger the American publisher queried if the image could be manipulated to make the skin of the man appear whiter (Hamberger 2009). It was therefore a strategic move to exclude the images of couples in the last edition. Love was perhaps universal, but everything that anchored romantic images of couples to time, place and ethnicity ran the risk of rendering them all too soon outdated, unfamiliar or challenging.

But the adaptations to various languages and cultural scenarios were only one of many trajectories the book has followed. The images in the different editions have had their own careers. Over the years, Bonnier developed several commercial strategies for moving and marketing the visual content in *A Child Is Born*. These tactics can be highlighted using some key concepts in cultural and media studies.

First, the strategy of intermediality can be observed in the reuse of the images in other books on human reproduction, authored by Nilsson as well as others. The term 'intermediality' has been applied to define the relationship between different media, often focussing on formal, stylistic and aesthetic qualities. I follow scholars that argue that economic, technological and cultural aspects are equally important aspects (Süss 2012: 212-214). Among the books featuring many of the same images as in A Child Is Born are educational books adapted for children (Nilsson, Cornell & Pettersson 1975, Nilsson & Swanberg 1996, Kitzinger & Nilsson 1986) as well as biology textbooks for students (Brum, McKane & Karp 1994). Most recently, a pregnancy diary with a selection of the photographic material from the fifth edition of Nilsson's book was released (Nilsson 2011). In several television films produced by Swedish public television from the 1970s to 2010 the images were frequently used and reused (Eriksson & Löfman 1982, Eriksson & Agaton 1996, Agaton 2010). These examples point to the product development and marketing strategies of the Bonnier publishers. By selling visual contents in various styles, genres and media, new target groups and consumers could be addressed to intensify the market for this product.

Second, this kind of exchange between media was also developed in a more deliberate way. It could be described as the mutual process of refashioning new and old media or what Jay David Bolter and Richard Grusin call 'remediation' (Bolter & Grusin 2009). For instance, shortly after the 1965 release, the drama of human development in *A Child Is Born* was transferred to and gave substance to the new television medium, thereby adding sound and music to the experience of viewing the images in the book (Nilsson, Wirsén, Bernholm & Wallén, 1965; for a discussion, see Jülich 2013). To mention another example, around 1980 one affiliated company of the Bonnier Publishing House experimented with a model for an electronic encyclopaedia stored on a video laserdisc that used *A Child Is Born* as a resource (Pettersson 2009). A search on an early personal computer using the letter 'F' (as in 'foetal development') led to the presentation of elements of text, image, and sound. Thus, new media were shaped and animated through old media.

Third, Bonnier developed a strategy that resembles what Henry Jenkins has termed 'transmedia storytelling', the unfolding of a story across several media (Jenkins 2006: 95–97). For example, shortly after the release of *A Child Is Born* the magazine *Idun Veckojournalen* ('Idun Weekly Record') featured a story about the couple that figured in the book, which was also published in *Life* (Nilsson & Graves 1965, 1966). This story added personal details about the expectant mother and her husband. The readers were thus invited to engage further in the life of the couple. Moreover *Idun* published a special supplement on how the material in Nilsson's book was used in sex education in school (Nilsson & Lindeberg 1965). Another issue featured the photographer together with his twelve-year-old son studying the pictures ('Livet före födelsen' 1965). These last two instances show that transmedia storytelling can also involve promotion of content through other media.

Fourth, beginning in the 1970s the Bonnier Group repackaged a selection of Nilsson's images and sold them as photo graphics in a numbered and signed edition; there was great demand from people who wanted them in their homes or offices (Pettersson 2009). The grander aspiration was to make the art world accept Nilsson's work as worthy of private and institutional collecting. This was a strategy shared by many photographers of the same generation that had also started off as press photographers working on commission rather than with their own work (Guadagnini 2013).

Thus, through the various translations as well as the strategies of intermediality, remediation, transmedia storytelling and repackaging it becomes clear that the biography of *A Child Is Born* not only included the extensive movement of the object, but also its pervasive transformation. These examples indicate that the movement of the images across media was an organisational process that can be related to what is usually described as creativity, authorship and copyright. This also goes for the selling of separate images to individuals, associations and companies, even if it was difficult for the publisher to control their flow. There was however another kind of process in which it was the intense characteristics of the object that enabled movement rather that its relation to a fixed origin (cf. Lash & Lury 2007: 25). Here I am thinking in particular of the photographs of foetuses and their capacity to evoke sensation and affect.

Uses and appropriations

In tracking the movement of *A Child Is Born* I have been able to identify many uses of the book and its images. While Bonnier coordinated some of these, others lacked the company's and the photographer's consent. There was however a grey-zone, especially during the first decade. It was Nilsson who held the copyright to his work but since several of the images had been published in *Life*, Time Inc. started to sell them in the USA and also marketed some audio-visual material that the company had produced on its own (Streiffert 2009). According to Bonnier publisher Bo Streiffert he made 'desperate efforts' to bring order to this situation but it took until the 1970s before the rights issue had been clarified. As a result, today he no longer recalls who permitted the use of Nilsson's images in *The Terrible Choice*, published in the USA at the end of the 1960s, and often referred to as critical of abortion (Cokke & Buck 1968).

As mentioned, at a particular point of time Bonnier decided to make A Child Is Born into a visual advice book on foetal development and pregnancy advice. The launch coincided with a reorganisation of sex education in Swedish schools, which had been mandatory since 1956. In view of strong criticism of the instruction offered, a state commission was set up in 1964. One recommendation in their report was that sex education must use new audio-visual material designed specifically for the purpose (Utredningen rörande sexual- och samlevnadsfrågor i undervisningsoch upplysningsarbetet 1974: 802–14). The members of the commission and other experts in the field were enthusiastic about the potential of using Nilsson's photographs. One of the members, sexologist Maj-Briht Bergström-Walan, began to collaborate with the photographer on several mixed-media projects (Bergström-Walan 2009). Together with Wirsén she wrote the script for the film The Child that combined Nilsson's foetal photographs with drawings and live shooting to portray the experience of pregnancy from the moment of conception to childbirth and the homecoming from the hospital with the baby (Nilsson et al. 1967; for a discussion, see Jülich 2011: 133). The film was used in both schools and maternity classes as scientific, accurate views of embryonic and foetal development. Also, a book authored by family councillor Birgitta Linnér and oriented towards the American audience, Sex and Society in Sweden, featured photographs of school children (taken by the photographer himself) marvelling at his pictures of human reproduction to promote Sweden as a sexual progressive country (Linnér & Nilsson 1967).

In the USA, in contrast, the photographs in Nilsson's book were increasingly used in campaigns against abortion. The pro-life movement emerged as a reaction to a growing struggle for abortion rights in the years before the *Roe v. Wade* Supreme Court decision in 1973 legalising abortion in the USA (Hughes 2006ab). Although opposed to many of the ideals that fuelled the social activism of the 1960s, anti-abortion supporters were inspired by the strategy of the anti-Vietnam War movement to mobilise opinion by using pictures of children and motherhood. The

architects behind the visual tactics in the early pro-life movement were a Catholic couple from Cincinnati, the physician Jack Willke and his wife Barbara Willke (Gorney 1998: 96–106). Apart from lecturing and giving television and radio talks, they also produced audio-visual presentations and wrote several books that became the canonical literature of the National Right to Life Committee. In *How to Teach the Pro-Life Story*, the authors greatly recommended the use of Nilsson's photographs to convince people that what grows inside the womb is human life (Willke & Willke 1973). These 'life-like' looking pictures, they argued, had scientific credibility and were so 'powerful' that they could be used in nearly any way and still be effective.

Today Nilsson's photographs of embryos and foetuses can be found everywhere in our mediatised culture. This is not simply an effect of the successful business strategies of Bonnier and their associated partners but also of the unauthorised circulation and use of these images. For instance, at various photo-sharing websites, people borrow his pictures to create slideshows on the beginnings of life. YouTube members upload videos that combine, often unacknowledged, Nilsson's images with their personal images to tell pregnancy and childbirth stories. On internet forums, blogs and other websites individuals and organisations use his foetal imagery to mobilise support for arguments about reproductive rights, sex education and abortion. In many ways this sharing, remixing and moving of image contents seem to be characteristic of what has been referred to as a participatory culture or a usergenerated context (Jenkins 2006, Ekström et al. 2011: 1–9).

Debating the photographs of life before birth

The biography of *A Child Is Born* also includes the critical debates that have surrounded the book. I wish to focus on discussions of the materiality of the images or, more specifically, how they were produced and the uses of aborted embryos and foetuses for the visual representation of human reproduction. There have been concerned readers and reviewers querying the techniques involved and what the images show since the early reception of the book and their numbers have grown through the years.

Apparently, these questions have not been answered by reading the book. Once again it is interesting to compare the different editions and translations. In the first, second and third Swedish editions nothing was explicitly said about the fact that most of the images were made possible due to medical or surgical abortions. Where the translations are concerned, the only exception I have found so far is the first Danish edition from 1966, which had been provided with a foreword by the doctor Erik Münster. He stated that Nilsson had captured the images of the foetuses immediately after they had been aborted: 'They are thus photographed outside the womb but as a rule placed in a fluid so that they have the same appearance as when they are floating in the amniotic fluid inside the pregnant woman' (Münster 1966: 7). Only in the fourth Swedish edition, published in 2003, were a few words about the making of the images included. It was claimed that the pictures were taken with the help of new reproduction and visualisation technologies, but that there were no photographs of embryos or foetuses aborted by medical or surgical means (2003: 236). A section of the larger, coffee table version of the most recent edition was reserved for 'The history of a book' that included a chronological timetable starting with 'the first experimental work in the beginning of the 1950s up to this latest edition' (2009: 220). The origin of the first photographs of foetuses were said to have been from 'a story about abortion' but no more details were given. Thus, the five editions have been engaged in producing slightly different versions of the book's contextual history. This story still excludes accounts that connect Nilsson's photographic work to legal abortion activities and debates in the 1950s and 1960s.

During the life history of *A Child Is Born* critical voices have pointed out that the photographs depicted aborted foetuses and they have questioned the ethics of Nilsson's image-making. In a review published in 1965 in the Swedish Medical Association's journal *Läkartidningen*, Lars Engström, chairman of the abortion committee of the State Medical Board, stated that the book was 'lightly disguised anti-abortion propaganda' (Engström 1965a: 3818). Furthermore, images and texts were combined to deceive the readers:

I just want to refer to the women who *in reality* were to have been mothers of the foetuses that are depicted. It is presupposed that the readers have realised that the pictures show foetuses that are dead, removed by operations or legal abortions. The caption to a picture has the following to say about the eyes of the foetus in the fourth pregnancy month: 'Infinite calm rests in these faces. They look as if they are waiting for eternity. But it is the short life on earth they are preparing for and it is not sleep that keeps their eyes shut.'

Is this embryological poetry or deception? The truth is down to earth and simple: the eyes in the picture will never see (Engström 1965b: 4295).

Engström was one of the few at the time to express what was explicit to every trained gynaecologist's eye: Nilsson's pictures showed dead aborted foetuses. This was apparent by the look of the skin colour of the foetuses in the photographs that were not as rosy as of living foetuses, but white with marked veins and arteries. When I interviewed Kerstin Hagenfeldt, who was then a member of the board of the Swedish Society for Obstetrics and Gynaecology, she recalled that the issue was discussed among the leading specialists, and many were surprised by the lack of public debate (Hagenfeldt 2010). But, apart from Engström, there were not many in the profession who wanted to discuss the issue in public since this would have been considered disloyal towards Ingelman-Sundberg.

During the 1960s and early 1970s there were however some journalists in the daily papers that recurrently pointed out the connection between Nilsson's work and legal abortions (Jülich, in progress). They were particularly anxious about reports and rumours about 'experiments' on human foetuses taking place in laboratories at Karolinska Institutet and elsewhere. Human material was used for research

and the development of vaccines and drugs, as aborted foetuses were said to be kept alive for hours in an 'artificial womb'. It was in this research milieu that Nilsson had taken some of the photographs for his book and the journalists accused him of unethical behaviour and commercial profit. But after the new abortion law allowing elective abortion up until 18 weeks of pregnancy had been passed in 1974 this debate faded away.

Around 2000 a new and heated discussion of Nilsson's images started and this time it was the leader of the social-conservative Christian Democrat party, Alf Svensson, who expressed his great concern in the evening papers about the 'new' information about the images (William-Olsson & Wetterqvist 2000). For a couple of days the papers featured headlines such as 'The foetuses in the famous pictures are dead', and 'Head of the organisation "Save the Children" rages against the images of dead foetuses in the world-famous book' (Hedlund & Johansson 2000).

In contrast to these relatively few critical voices in Sweden, a discussion with broader implications has been going on in Britain and the USA. As I mentioned in the introduction to this article, it was during the heyday of the anti-abortion movement in the 1990s that feminist scholars and activists began to draw attention to Nilsson's foetal photographs (Franklin 1991, Duden 1993, Stabile 1992, Berlant 1997). Their motivation was the protection of women's right to legal termination of pregnancy and they focused upon the ideological content of the images. Above all, these analyses have emphasised the construction of the foetus as an autonomous individual and how this is linked to political interests and agendas.

Surveying these critical debates about *A Child Is Born* over the years, it is relevant to ask if and in what ways they have affected the work on the new editions. In interviews with me, several of the editors engaged at different times in preparing editions of the book as well as Nilsson's co-authors recounted that they avoided answering more specific questions about how the images had been produced (To-lander 2008, Grenholm 2008, Dal 2008, Wirsén 2008). Fearing strong reactions that could jeopardise the commercial project, or sensing that it would detract focus from the essential topic of the book, they kept this information to themselves and their colleagues. Thus, in an indirect way the criticism of the photographer's image practices influenced how people at Bonnier related to the book and its audiences.

But the critical debates also had more direct effects on the production of new editions that can be related to what Lynn M. Morgan has described as 'the silencing of foetal death', a desire to forget the history of embryo collections on the part of different scientific and medical actors involved in this practice as well as in society in general (Morgan 2009: 29, 229–230). During the first half of the twentieth century anatomists in collaboration with physicians and surgeons collected dead embryos and foetuses as evidence for their investigation of human origins and development. By the 1960s these collections with whole embryos and foetuses stored in alcohol or prepared as histological sections were no longer considered scientifically important but rather somewhat embarrassing and not to be talked about.

Similarly, Nilsson, the editors and the co-authoring gynaecologists participated in the 'silencing' of aborted specimen in the famous photographs. Bearing the questions about the ethics of his work in mind, raised by Svensson and others, the photographer first insisted that no images of dead foetuses should be included in the 2003 edition (Hamberger 2009). While this was not complied with, it was regarded crucial to testify that the foetoscopic images (or at least one) were of a living foetus by including a photograph taken four months later of the baby born at full term and its mother (2003: 129). Nilsson and Hamberger also wanted an ultrasound image for the cover of the book since this would signal the photographer's use of noninvasive technique with no risk of damaging the foetus, but this was considered unattractive and thus a poor commercial choice by the editors (Hamberger 2009). This episode and the other instances that I have discussed indicate that the biography also entails a moment when the object becomes self-reflexive, modifying its behaviour in different environments and scripting its own history.

Conclusion

This paper has adopted a biographical approach to show the movements and transformations of *A Child Is Born* over the last five decades. The aim has been to outline the complex life history of this particular object from its conception and production to the processes of circulation, uses and interpretations. It would however be a mistake to presume that Nilsson's book has followed a linear path of change and distribution. As Scott Lash and Celia Lury have underlined 'there is no simple beginning or end point in a culture of circulation, but rather a dynamic of forces' (Lash & Lury 2007: 135–136).

In mapping the biography of the book I noted that the embryological and foetal photographs in the book are only their most recent appearance in a long series of circulations and transformations. And after its release in Swedish, the book with these images was translated into other languages, followed by later editions and translations. Moreover, during half a century Nilsson's images have moved through a wide range of media. They have travelled across national borders and appeared in many different settings, engaging doctors opposed to abortion, sex education reformers, anti-abortion activists, feminist scholars, and other interpretative communities.

As I have pointed out, at least two principles of transformation were at work in this biography (cf. Lash & Lury 2007: 25). In the first process, despite undergoing significant changes, the book preserved a material and discursive unity and moved in relatively fixed domains. This movement occurred in relation to an origin that can be understood in terms of creativity, authorship and copyright. The second process did not require the integrity of a creative work. Rather, it was the intense features of the book and its images, their affective and iconic power, which enabled the circulation and appropriations.

These processes have worked to co-produce and change the identity of *A Child Is Born*: it has been transformed from a pregnancy advice book for expectant mothers to an artistic coffee table volume. Similarly, it has changed from more specific views of pregnancy and childbirth into a 'universal introduction to the miracle of life'. Rather than being a fixed and stable object, Nilsson's book could be described as a busy intersection for images and texts in constant motion. Entangled in a culture of circulation, the book has taken on a dynamic of its own. It has moved as much through accident as through design. In these changes, the book has become self-reflexive in its adjustments over a range of arenas and milieus.

Through the kind of biography that has been studied here it becomes possible to develop a greater understanding of the communication of human reproduction over a longer period of time. The history of *A Child Is Born* demonstrates that it is in the circulation of cultural forms that meanings of foetal life have been constituted and contested. In addition, it suggests that the different life phases of books and images that mediate knowledge about reproduction are equally important in providing a grasp of their vital roles in shifting forums and communities. This emphasis on movements over time and space also complicates any notion of these objects as fixed products. The life of (the images in) Nilsson's book encompasses many lives, each ensnared in the trajectories and transformations of others.

Note on the lack of figures

The author has for several years been granted the permission to use Lennart Nilsson's photographs in academic publications that report the results of the research project funded by the Swedish Research Council. For each image a fee has been paid to the right holder Lennart Nilsson Photography AB through the TT News Agency. As previously this paper was meant to include visual materials, specifically covers and spreads from the various editions of *A Child Is Born*. However, Lennart Nilsson Photography AB has now set conditions making it practically impossible to publish these images for the author. This happened after an article by the author was issued in the Swedish newspaper *Svenska Dagbladet* in July 19, 2015 that outlined and discussed Lennart Nilsson's contribution to anti-abortion campaigns in 1950s and early 1960s Sweden. For a biographer of *A Child Is Born* this is an intriguing turn in the life of the book but for historical research on Nilsson's powerful images it represents a serious setback. In extension, these kinds of practices are counterproductive to the dissemination of knowledge that remains a fundamental mission of scholarly journals.

Solveig Jülich is Associate Professor and Senior Lecturer at the Department of History of Science and Ideas, Uppsala University, Sweden. She has published several articles and book chapters on the Swedish photographer Lennart Nilsson and his iconic pictures of embryos and foetuses. Currently, she is working on the history of foetal research in Sweden during the post-war period and after.

Acknowledgments

This research was supported by the Swedish Research Council (Dnr 2014-1749). The author would like to thank the participants at the conference 'Communicating Reproduction', held in the Department of History and Philosophy of Science, University of Cambridge on December 5–6, 2011, and the anonymous referees of this journal for stimulating discussions and helpful commentaries on earlier versions.

Notes

¹ This description is based on personal notes from a visit to the exhibition and an introductory text on Fotografiska's website: http://en.fotografiska.eu/TheMuseum/Previous-Exhibitions/A-Child-is-Born (accessed 10/10/11, no longer available). It is currently offered as one of Fotografiska's travelling exhibitions: http://fotografiska.eu/en/utstallningar/travelling-exhibitions/ (accessed 12/07/15).

² Solveig Jülich, 'Images of Life and Death: The Lennart Nilsson Industry, 1940–2010' (working title for book manuscript, in progress).

³ From now on, unless stated otherwise, I refer to the Swedish editions and cite only the years and pages or front/back cover. Also, for the 2009 edition, which was published in both a smaller and larger format, the latter with an additional text by Mark Holborn, I cite the smaller, if not otherwise indicated. Translations are, when possible, from the English editions but, if not, my own.

⁴ The production, marketing and reception of the first Swedish edition have been analysed in Jülich 2015a. For a brief discussion on the iconic images in the first, second, and third English editions, see Matthews & Wexler 2000: 162–170.

⁵ This is a rich field of interdisciplinary study that has been greatly influenced by Appadurai, ed. (1986). For a recent discussion on the status of social biography in material and visual cultures studies today, see Edwards (2012). This article draws in particular from the methodology that has been elaborated by Lash & Lury (2007): see especially chapter 2.

⁶ TT News Agency, the national wire service in Sweden, represents Lennart Nilsson's images worldwide. An archive with a selection of images is available at: http://web.tt.se/lennart_nilsson/ (accessed 11/07/15). Nilsson's family-owned company, Lennart Nilsson Photography AB, has a website with some materials and links: http://www.lennartnilsson.com/ (accessed 11/07/15).

⁷ Recordings and transcripts of the interviews, conducted from 2008 to 2010, are in the possession of the author. An interview with Lennart Nilsson (January 17, 2009) has not been included since, due to old age, he did not recall the details of these events. These interviews, critically assessed by comparison with one another and, where possible, with written sources, have revealed important details concerning the strategies involved in producing and marketing the book. For a discussion of related methodological issues, see de Chadarevian (1997).

⁸ See the bibliography for full information.

⁹ In an interview with the author on November 7, 2008, Axel Ingelman-Sundberg recalled that his wife, Mirjam Furhjelm, wrote most of the text since he was too busy at the time. However, she was not acknowledged as co-author until the second edition.

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