

Guys and Dolls: Relational Life in the Technological Era

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This paper asserts the current age as perverse, a social paradigm facilitated by explosive technological progression that is rapidly altering the erotic and social dimensions of human relationship. The author employs psychoanalytic and evolutionary theories to explain the ease with which we humanize machines and dehumanize people. The quest and need for love, which combines both discovery and invention, is framed within Winnicott's concept of the transitional object. A detailed case is presented of a man who lived with a high-end love doll. The case illustrates his simultaneous need to dehumanize women and humanize the doll, as well as his use of the analyst to help him transition from being with a doll to being with a human partner. Questions regarding technology's growing impact on the future of relationships are surfaced.

We have entered an era of unprecedented technological development that is radically changing what it means to be human. I refer here to the progressive eradication of the boundary between plastic and flesh, wire and artery, computer and brain. This explosive time heralds a new kind of life, where machines become more like humans and humans more like machines. Not surprisingly, many technological changes are pulling at our heartstrings and hitting us below the belt.

Human sexuality has always been inextricably linked with technology. Reproductive technology and medical treatments for sexually transmitted diseases have transformed sexual practices in the 20th century (Galatzer-Levy, 2012). They have also turned the body into a "highly developed machine" (Goren, 2003) that is today broadcast over the Internet, a space that does little to foster the ability to delay gratification or distinguish fantasy from reality (Levy-Warren, 2012). Despite these significant changes, surprisingly little has been written about the new technologies in psychoanalytic literature (Caparrotta & Lemma, 2014). I propose that the recent technological avalanche is changing the ways we express our social and sexual desires and that psychoanalysts need to be cognizant of these changes because they have vast implications for our clinical work and our lives. After showing the degree to which technology has invaded our intimate lives, I present theoretical and empirical studies that help explain our growing ease with this trend and its contribution to the social and sexual realms. I do this by connecting psychoanalysis with evolution to describe our inborn tendencies to both humanize and dehumanize. I then present clinical material from the case of a man who sought treatment while living with his realistic doll, Maya. Finally, I raise several important questions regarding

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the profound and widespread impact the technological revolution is having and will continue to have on our relational lives.

TECHNOLOGY AND INTIMACY

Traditionally defined in terms of dehumanizing the other or eroticizing an actual object (Bach, 1994; Freud, 1905; Stoller, 1975), perversion is today being realized through technology. Because advanced technology invites disembodiment and dehumanization, a person can become an object or sexually act on one, even falling in love with it. Spike Jonze's recent film *Her*, about a man's romance with his operating system, received rave reviews and was touted as "prophetic" and "profound" (Octavarium08, 2013). This is because the story, however strange, is fueled by the universal need for connection and the ability to humanize anything that can become the object of our fantasies and desires.

Innovations in robot engineering, artificial intelligence, and computer-assisted technology are among the fastest growing and most fascinating arenas in science today. Futurist Thomas Frey (2011) predicted that 50% of our current jobs will be performed by robots by the year 2030. Indeed, incredible advances in robotics are already evidenced in a wide variety of technological infiltrations: self-driving automobiles, warfare drones and battlebots, teacherless classes, printable houses, eldercarebots, and robotic surgery, to name only a few.

Unsurprisingly, many of the technological marvels are a response to the universal human need for connection, meaning, and intimacy and reveal how we use technology to answer our deepest longings. Sherry Turkle (2011), Director of MIT Initiative on Technology and Self, asked not what computers can do or will be like in the future but, rather, what we will be like. What kind of people are we becoming as we develop more and more intimate relationships with machines? Since fetishistic strategies often prefer an object to a human partner and hinge largely on its nonhuman qualities, what is turning out to be clearer by the day is how original perversions (e.g., cybersex addiction) emerge to keep apace with general trends in society and, conversely, how society's norms and practices (e.g., virtual relating) are increasingly beginning to resemble the perverse.

Winnicott (1951/1975) brought our attention to the infant who soothes itself and finds comfort in its baby blanket and teddy bear or the child who creates an imaginary friend, demonstrating the first examples of how we are hardwired to use objects and imagination in a relational manner. People who are skeptical of this natural tendency need only consider the widespread attachment to one's smartphone or navigation system. I once had a patient whose jealous wife forced him to change the navigator's voice from female to male. Another patient refused to sell his car because he was deeply attached to its female voiced guidance system! Turkle (2013) claimed that one of the differences between Winnicott's transitional objects and the technological objects to which we develop attachments is that the latter are not meant to be abandoned.

Strong evidence revealing the trend of desire's union with technology is surfacing. Consider the following: Technology is changing the ways couples meet and interact. Online dating is a \$1 billion industry and more than one third of marriages in the United States began online (Cacioppo, Cacioppo, Gonzaga, Ogburn, & VanderWeele, 2013) Phone apps like Grindr, Blendr, and Tinder allow gays and straights to locate anonymous sex hookups wherever they happen to find themselves. Tinder is now matching 10 million people per day (Shontell, 2014). A major British study (Wellings & Johnson, 2013) found that couples report having 20% less sex than they did 10 years ago. Wolf (2013) blamed this phenomenon on Internet pornography. Indeed, face-to-face contact is rapidly being replaced with electronic connectivity. Our society has been hijacked by the Internet, where, among so many other things, it provides a subculture for people to find each other, share their lives, escape isolation—and get sex. Forty million adult Americans regularly visit erotic Internet websites. Sixty percent of all visits on the Internet involve sexual purpose, making it the number one topic searched on line (MSNBC/Stanford/Duquesne Study, 2000). The younger generation uses cell phones more than the web. A recent survey posted by The National Campaign (2008) reports that nearly 50% of teens admit to having received sexually suggestive messages.

The sex doll industry has erupted internationally, and high-end silicone love dolls are being manufactured in the United States, Japan, and Germany and sold like hot cakes on the web. There are even sex doll brothels and escort services (Ferguson, 2010). Japanese roboticist Hiroshi Ishiguro (2013) created Geminoid F, a female android that expresses and responds to basic emotions and behaviors, and engineer Douglas Hines created Roxxxy, the first "robot girlfriend" who boasts a personality and conversational ability (Chapmann, 2010). David Levy (2007), a well-known artificial intelligence expert, boldly claimed that in less than 40 years, marriage to robots will be legal in some states. Many on the vanguard of robotics and AI share his vision of relationships with fully functional robots within that timeframe.

HUMANIZATION AND DEHUMANIZATION

Although many of these trends may initially strike one as strange and coming from the margins, even the most unusual forms of relating can be shown to have something in common with all of us. In 1906 Freud observed, "It is not at all necessary to outgrow [anthropomorphism]" (as cited in Grossman, 1969, p. 78). Akhtar (2003) elaborated on the emotional importance of actual objects in one's physical environment throughout the life cycle. Indeed, research studies demonstrate that everyone unconsciously attributes human characteristics to inanimate objects. As early as 1944, an experiment by Heider and Simmel showed that humans interpreted moving abstract geometric shapes as purposeful beings. More recently, infant researchers use animated geometric blocks and shapes in experiments that show infants recognize and respond to agency, goals, and social dominance relations in inanimate objects (Thomsen et al., 2011; Saxe, Tzelnic, & Carey, 2006). A new area of research called human-robot interaction has emerged and shows the degree to which humans attribute social characteristics, including intelligence and personal agency, to robots. In 1966, Weizenbaum created a computer program that employed patternmatching technique resulting in a simulation of a Rogerian psychotherapist that delivered surprisingly humanlike interaction. If the patient said, "My grandmother hates me," the "doctor" responded with a question, "Who else in your family hates you?" Named after Eliza Doolittle in George Bernard Shaw's play Pygmalion, in which the main character is taught to speak with an upper-class accent, Weizenbaum called his psychotherapist a "parody," yet he found his secretary spending long hours confiding her problems to it. While one may think this comes easy with machines made to resemble humans, many studies show the human tendency to anthropomorphize objects that bear no resemblance to humans at all. In 2011, Sharlin had subjects sit in a

room with a very simple robot, a long balsa-wood rectangle that was attached to a few gears propelling it to move. The human controlling the movements was out of sight. The vast majority of subjects described the stick as having its own goals and internal thought processes. In all, these studies demonstrate the universal need for connection and the ability to humanize anything that can become the object of our fantasies and desires. One can think of this ability as generating from our human empathy, that is, the ability to experience another's plight (even if that other is a thing) as if we are experiencing it ourselves (Iacoboni, 2009). Probably due to its evolutionary utility in mothers, it seems the capacity for empathy is stronger in females (Davis, 1996; Derntl et al., 2010; Hall, 1984; McClure, 2000). Of interest, Stoller (1979) noted that those known for their absence or difficulty with humanization are found among the autistic, schizoid and psychopathic—disorders that are primarily male.

On the other hand, many (Bain, Vaes, & Leyens, 2014; Harris & Fiske, 2011; Livingstone Smith, 2011) claim that we are programmed by our evolution and our brains to dehumanize, demean, and even kill. Indeed, the infant only gradually develops the ability to distinguish between human and nonhuman (Akhtar, 2003; Stoller, 1979). Haslam (2006) reviewed the literature on dehumanization and concluded that dehumanization refers to the denial of one's human characteristics (in comparison to animals) or the denial of features that are typically human (e.g., imagination, conscientiousness). Most writers (Harris & Fiske, 2011; Keen, 1991; Livingstone Smith, 2011), including psychoanalysts (Altman, 2008; Dalal, 2006; Kernberg, 2003), address dehumanization as it relates to prejudice and social stereotyping, war, and genocide. They clarify that the easiest way to kill other humans is to dehumanize them by divesting them of the characteristics that are uniquely human and denying their individuality. The classic case is that of the Nazis who portrayed Jews as a subhuman race and tattooed concentration camp inmates with numbers to render them things rather than people. Some (Schulman-Green, 2003) note both adaptive and maladaptive functions of dehumanization, as in the physician who regularly deals with dying patients or the surgeon who uses a form of dehumanization so that he can perform without emotional involvement. Others (e.g., Szaz, 1973) argue that psychiatric classification or manualized treatments dehumanize because they deny individuals' uniqueness and treat them like "defective machine[s]" (p. 200). Dehumanization can be directed at the other or one's self, with each form reinforcing the other.

The evolutionary function of dehumanization as facilitating the ability to kill one's enemies might help explain why males, the traditional warriors, may have a greater propensity for it. Feminists (Fredrickson & Roberts, 1997; LeMoncheck, 1985; Nussbaum, 1995) have long shown how women have been objectified and dehumanized by men, society, and the law. The title of a 2006 book by renowned law professor, Catherine MacKinnon says it all: *Are Women Human*? One only need recall *The Stepford Wives* to grasp the male need to replace a real woman with a nonhuman, more "ideal," woman. Naomi Wolf (1991), in her popular book *The Beauty Myth*, stated that the concern of the future is not that women will be slaves but that they will be robots. Stoller (1985), too, noted that pornography, known for its objectification and dehumanization of women, holds a greater appeal for men than women.

Peskin (2012) complained that few psychoanalysts have written about disorders of dehumanization, and he attempted to correct this oversight by connecting dehumanization to trauma that has gone unwitnessed or unconfirmed. Peskin considered psychotherapy of trauma as the "practice of rehumanization. (p. 191)" Besides trauma, war, and genocide, psychoanalysts have also mentioned dehumanization in the sexual arena. Stoller (1973, 1979), Khan (1979), and Bach (1994) have each pointed out that many perversions involve turning a person into a thing.

I believe that the paradoxical needs to humanize and to dehumanize coexist in all of us and that understanding these two tendencies helps explain the ease with which people interact with their machines. Yet I propose that these abilities exist along a continuum. For some, they are quite subtle (e.g., Jane feels more comfortable texting her husband intimate messages than telling him in person) and for others rather extreme (e.g., Johnny can only feel sexual with a robot).

These propensities to humanize and dehumanize also recall Martin Buber's (1958) famous distinction between two types of relational attitudes: the "I–Thou" and the "I–It." The I–Thou relation is direct and mutual; in it, there is acceptance of the other as a whole and equal partner in dialogue. By contrast, in the I–It relation, the other is regarded as a nonhuman thing, an object to be used. It is interesting for our present purposes that Buber maintained both attitudes are necessary for human existence. He believed the I–It relation provides the foundation for ordered civilization, technical accomplishment, and scientific progress.

I now describe the case of Jack, a man who lived with his love doll, Maya. This case demonstrates Jack's need to dehumanize the woman by replacing her with a doll. However, it also shows his tendency to project his fantasies onto this inanimate doll, thereby humanizing the doll in his mind and convincing himself that he is in a relationship with a "real" woman.

JACK AND MAYA

Jack lurched through the door for our first session like a man walking through underbrush at twilight, lifting his legs higher than needed as if he feared falling down. He wore a plain brown retro suit set off with a bright yellow bowtie. His flattop haircut and thick-rimmed black glasses framed his pale face. Jack looked like he'd stepped out of the 1950s and might be applying for a job in an ad agency. He plopped awkwardly on the couch opposite me, and his bright blue eyes slowly scanned the room; I had the impression he was taking in every detail. He seemed not to know what to do with his hands, first placing them on his knees, then alongside him on the couch, and finally deciding to hide them by crossing his arms across his chest. After all this, he looked at me, forced a smile, and emitted a long sigh. "So, I guess we should start with my story," he said, leaning back in his seat while looking anything but relaxed.

He began with the facts. He was 48 years old, an actuary by profession. A large insurance company based in the Northeast employed him. For 10 years he had toiled long but rewarding hours at managing risk, discerning patterns of catastrophe, and structuring "nest-fit solutions" to life's inevitabilities. His fastidiousness attention to detail seemed well suited for the career. He liked his job and had a few interesting hobbies. He collected old, broken watches and claimed to be an expert at World of Warcraft, a complex multiplayer online game involving the progressive development of an avatar character that engages in various missions or quests. He'd been married and divorced twice and had no children. His relationship with his family was remote. His parents lived in Ohio, his older brother in California, and a younger sister in Minnesota. "I see my family once a year around Christmastime. We all get together for a couple of days and

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mostly listen to my mother yammer about nothing. Two to three hours after getting there I can't wait to leave."

In our fourth session, Jack told me about Maya, the girlfriend with whom he lived. He mumbled something, but I couldn't hear his words because he covered his mouth with his hand.

"Say it again?" I asked.

"I said I think I'm in love with her because I miss her while I'm at work, and always look forward to coming home to her after a long day." He blushed brightly as he asserted that Maya was his best partner ever.

"I tell her about my day because it helps me wind down. She's so beautiful. I love to just look at her. We never fight," he said, and laughed. "You'd expect that, I suppose."

"Why would I expect that you'd never fight?" He looked at me as if searching for something in my face, but he said nothing. "Is it because the relationship is new?"

"No, no, Doc, we've been together for nearly 2 years" he replied, fumbling with his hands as if they weren't part of him. He clearly didn't know what to do with them and finally anchored them, palms up, beneath his legs. His mouth twisted into a smirk, and he looked down at the floor. "It's not that. She's not the kind of girl who could ever give me a reason to fight with her."

"What do you mean?"

He didn't answer my question. Instead, he launched into his evening ritual with Maya. He'd sit in his soft leather recliner with Maya on his lap and gently caress her long red hair while gazing at her perfect profile, with its small, delicate nose and full lips. Then he'd turn her toward him, and her large green eyes would catch the light and glitter like points of a diamond. He'd talk to her about his day and she'd listen intently. He'd stroke her shoulders and back, and kiss her softly on the neck. One thing would lead to another, and soon enough he'd carry her off to bed where they'd engage in hot, uninhibited sex. "She's just super in bed," he crowed. "I've never had this kind of sex with a woman."

He admitted that he was hesitant at first, after two failed marriages and a tedious string of short-term disasters, after all the heartbreak and the "impossible gymnastics of trying to please a woman." Nearing 50, he thought his options might be ending. He recollected what his father told him, after 20 years of misery with his mother: "Men and women, they've got different agendas, Jackie boy. They need each other to make life go, but they're naturally at odds because they really want different things. Maybe the only thing they have in common in the end is the kids they have together. Maybe not even that."

"My father's got nothing left of his manhood," Jack told me grimly. "He's got a leash around his neck, and my mother's holding the other end. Reality is whatever she feels, whatever she says it is. He's got no say. They sleep in separate bedrooms. She never stops talking, while he hardly says a word. She tells him what to do and runs his life. When he fights with her now, he's like a cornered mouse squeaking out protests against a hungry cat. He's finished. And I can tell you, I have no intention of being swallowed up like him. I have needs—needs for love, sex, companionship—but I'm not paying for them with what's left of me."

"And what is left of you?"

"I'm not sure. But something's left. Something I have to hold on to."

With Maya, he seemed to have found a way to answer his needs without feeling compromised. She was a special woman, one who somehow understood the disappointments of his past relationships and his daily stresses, one who made love with him whenever he wanted to, one who was perfectly compliant. Jack stared at me intently and said, almost in a whisper, "My Maya, she's a real doll, Doc." I watched him laugh, rocking from side to side and bringing his hands out from under his knees to lightly slap them. Then something dawned on me. No, it couldn't be, could it?

"Yeah, she's a real doll," he repeated, his laughter beginning to die down. "Literally."

"A doll? You mean a real doll?"

"Yeah, that's what I said. With all the accouterments, she cost over ten grand, but she's worth every penny of it."

I looked at him and tried to take in what he was telling me. I had heard about sex dolls but never met someone who had one. At first I felt slightly repulsed. The feminist parts of my being recoiled the idea of a man living with a sex doll. Furthermore, it seemed so sexist, too much a stereotypical expression of the male wish for female compliance, the reduction of a woman to a thing for use and pleasure. Then my own perversity kicked in and a kind of voyeuristic curiosity surfaced. Here was a window into the life of a man who lived with and loved a doll. What new things might I see and learn? How might it change me? What challenges would present themselves? At last the therapist took hold and it seemed all these impulses and desires were gathered in an interest in learning about this man and possibly helping him in some way. After the whirlwind of mixed associations and emotions Jack's confession evoked in me, I looked at him and noticed that he was staring back at me piercingly, waiting to see the judgment creep into my face. Sensing that, I relaxed, looked at him calmly, and attempted to regroup.

A long silence ensued. Finally, he flashed a big grin and said, "A silent wife is a gift from the Lord."

IDOLLATRY

Jack had been living with his life-size doll, Maya, for nearly 2 years when he came to see me. I felt the need to learn more about dolls like Jack's Maya and launched into my own research on the phenomenon of love dolls. I soon discovered that Jack was not alone in his quest for the perfect partner. "RealDoll" is part of Abyss Creation's multimillion dollar industry that markets its product as "the world's finest love doll" and sells it for \$5,099. (The headless, limbless "Flat Back Torso" equipped with vaginal entry goes for \$1,099, and the deluxe model—like Maya—sells for \$10,000.) Matthew McCullen, the Dr. Frankenstein of RealDoll, has had so much success with his product that it has generated numerous knockoffs that flood the Internet. In bygone days, men who sought doll partners were limited to the inflatable "Miss Pinky," a blow-up balloon in the shape of a woman who would be good to the man so long as he didn't approach her with sharp objects. Eighty hours of labor produce her contemporary incarnation, an eerily lifelike, noncollapsible, anatomically correct woman made of silicone rubber that boasts the sensation of real flesh.

RealDoll can be customized according to specifications, since she's available in nine body types, 15 faces, and a variety of hair colors and skin shades (Figure 1). In short, a man can create his "ideal woman" in appearance, and more. He can shape her physically, and she can become the object of limitless fantasies of his choosing. She is Adam's female incarnate (Figure 2).

I began to wonder what would make a doll the ideal woman in a man's eyes. Why would a man prefer a doll to a real woman? The Pygmalion myth, in which a sculptor creates the woman of his dreams and falls in love with his creation, indicates that the appeal of a man-made woman



FIGURE 1 Hanging dolls at Abyss Creations. Photo courtesy of Danielle Knafo.

reaches far back in time. Ancient lore and literature tout the value of a subservient woman who gladly yields to the man's desires.

Perusal of the letters and testimonials sent to RealDoll manufacturers offers some clues to the doll's appeal. She is "better than a woman," one says. "There is no stress," declares another. "She never complains or is needy," announces a third. One man states it simply: "I won't lose half my assets to a bitch!" Another brazenly confesses, "I want to enjoy all of the carnal satisfaction with none of the real-world difficulties of honoring another person in a relationship." Still another fellow who lives with two dolls wryly notes, "People grow old and ugly. Look at me! But they [the dolls] never will."

In a 1999 interview with Michael Lane for *Monk Magazine*, RealDoll's¹ creator Matthew McMullen was asked about the sex experience with the doll. His answer was both direct and interesting.

Some people might have a fetish for having sex with an inanimate doll and it may in fact for them be a superior experience to having sex with a woman. I tested the actual physical parts of these dolls and if you were to close your eyes, the sensations that you get from the silicone are actually better than the real thing. The physical feeling of it. I mean it's just a whole different thing. When you put something into this silicone entry it forms a vacuum seal so it's got this suction that a real woman couldn't have. And that is more intense than the real thing. Others may like the Real Doll because it's totally silent and basically submissive. It does whatever you want it to do. Some guys really get off on that, the fact that they can tell this doll to get in a position and hear no complaints. The other thing to consider is that these dolls are physically beautiful and how many guys out there really get

¹ These quotations were taken from a website called Hello Dolly, which no longer exists.



FIGURE 2 Sidore, Davecat's RealDoll wife. Photo courtesy of Danielle Knafo and Avi Setton.

to be with a woman who looks that good. Not many. The doll makes things possible that otherwise wouldn't be.

- *Monk*: Do you think the doll helps men with their sexuality and their ability to relate with real women?
- McMullen: I think it depends on the person. I know for a fact that a lot of people that have ordered dolls might have sexual performance issues where they pre-ejaculate or whatever. They get too exited when they're with a woman and then it's all over before it starts. I've had men write to say the doll helped them overcome that anxiety and start dating. I think it's a good thing if it's used in the right way.

McCullen's answers surface both the helpful and harmful potential of his

innovation. His dolls might offer an inventive solution to the problem of failed relationships by providing a bridge between resigned loneliness and a new relationship. Or they might become a cul de sac, ending in permanent avoidance of human intimacy. Wanting to know more, in February 2013 I visited the RealDoll factory and interviewed McCullen myself. Among other things, I asked him about the "uncanny valley," a Freudian term adopted by robotics professor Masahiro Mori (1970/2012) to describe the phenomenon of revulsion people have when dolls or robots become too lifelike, too close to human. The valley explains the dip in comfort level that people experience when something is just too close.

- DK: So does the awareness of that phenomenon guide you in any way when you're creating these hyperrealistic dolls? In other words, is there a point where you say, this is close enough, or let's not make it even more realistic?
- MM: I'm very well aware of this uncanny valley you speak of, and I have thought a lot about it. In this day and age, technology is coming quickly, and pretty soon we'll be able to animate, and make these dolls move and make them talk and make them interact with people in a whole new way, and I always have that in the back of my head. I don't want to make it push people away. It needs to be very creative in the way that it's presented so that it's still very much obvious that this is a doll. This is a toy. This is a diversion. This is entertainment. You see some of the robotics creations that have been made recently, some of them are a little unsettling when you see them moving and their eyes are looking around. So I would limit how far I would take that particular type of technology into these dolls. I think as long as they're not moving they can look really, really convincingly realistic, but they're not moving, so you're obviously looking at a doll.²

PERVERSION OR INVENTION?

Before Jack, I had never treated anyone who loved a doll. My psychoanalytic training provided me a precise category and theory with which to understand Jack's choice of a mate. From the viewpoint of traditional depth psychology, he would fit neatly into the category of perversion (Freud, 1905; Stoller, 1975).

Classical psychoanalysis holds that a key feature of perverse sexuality is found in the act of dehumanizing the partner and turning her (or him) into an object to be controlled and manipulated according to one's fantasies (Bach, 1994; Kernberg, 1995; Khan, 1979). The partner's subjectivity does not matter except for how well it colludes with the alleged pervert's script, which dictates the specific features of the sex act. The more stuck in the script one is, the more one is ingrained in the perversion and limited to its acts as an expression of unconscious conflict or unprocessed trauma. We have to do it this way. You have to wear these clothes. You have to take this position. You have to say/do this to me when I do x and say/do that to me when I do y.

² Since I interviewed Mr. McCullen, he has decided to incorporate minor intelligence into the dolls, such as eye movements and facial expressions (Curley, 2015)

Stoller (1975) maintained that perversion involves an attempt to master trauma and enact revenge for its occurrence.

Perverse scripts can be relatively harmless, like shoe and doll fetishes, while others can be dangerous and patently destructive, and at the far end of the spectrum, even criminal and lethal. Think of Jeffrey Dahmer who sodomized, killed, and cannibalized his victims. It is not so much the act that necessarily defines the category (except of course at the far end of the spectrum) as it is the split in the person's mind. On one side of the split is the buried trauma with its accompanying unconscious sorrow and rage, and on the other side is its overt expression as the fixed erotic script that unknowingly attempts to master the trauma while providing sexual pleasure, though denying intimacy. The combination of the compulsive and repetitive nature of the script and the pleasure it provides makes a strong cocktail that can lead to addiction.

Doll fetishism dispenses with a human partner altogether. In this way it is easily read as an act of dehumanization. Human relationships and intimacy are foregone and replaced with self-toobject connections, Buber's "I–It" relation. Yet these connections are grounded in a fantasy that lends them an air of reality. The Marquis de Sade said it best when he wrote that it is "easier every time to fuck a man than to understand him." (as cited in Bach, 1994, p. 3) The implication of course is, why bother? People are so hard to understand, and even when we believe we understand someone, what does that mean? Interestingly, today, nearly one third of Japan's youth has chosen to forgo human intimate relationships in favor of celibacy or technology-based relating, claiming relationships are *mendokusai*, simply too much trouble (Haworth, 2013).

Still, doll owners, I thought, are a long way from Sade. Most do not want to hurt anyone. The majority of them are socially challenged and lonely men who want some sex and a stress-free "as if" relationship (Ferguson, 2010). Though the relationship is patently one-sided, many doll owners do not experience it that way, because they project an assortment of attributes and desires onto their dolls. Some are convinced that the doll has a particular personality, even an occupation, and that her tastes are quite specific. This was the case in the film *Lars and the Real Girl*. Like Lars, Jack felt his doll was a caretaker, a soft and sensitive woman who had a wild but fully monogamous sexual side. "Look," he said to me during one particularly intense session, "kids believe in Santa Claus and the Easter Bunny. Most people believe in God. Almost everyone needs an imaginary friend in their corner, even though they have no physical evidence of that friend's existence. Well, I have concrete evidence of my friend's existence. If you want, I can bring her here." Taken aback, I didn't reply to his offer, and one of us changed the subject.

Most doll owners are not suffering from psychosis. They know, at least on some level, that their dolls are not real women. Yet the "as if" quality of their experience with the dolls is powerful enough to provide a sense of real satisfaction. It is "as if" they are in a relationship with the woman of their dreams. That she is a *product* of their dreams doesn't seem to matter.

The fantasy element is so powerful that some men order several dolls and create a family with intricate interpersonal "relationships" among them. On October 11 and 12, 2014, I interviewed Davecat, a man who lives with three dolls (Figure 3).³ He explained to me that one is his wife, another his mistress, and that the dolls are bisexual and have relations with one another. For certain men, some dolls are used for sex and others are not. Whatever the case, the doll's owner is the one who calls all the shots. It is he who decides what will be done, when it will be done, and how it will be done. For all of these reasons, many men are more than willing to rack up

³ He gave me written permission to use his name and display pictures of him and his dolls.



FIGURE 3 Davecat in his living room with his three dolls, from left: Muriel, Sidore, and Elena. Photo courtesy of Danielle Knafo and Avi Setton.

huge credit card debts to fill their own private dollhouse. Everard Cunion (2012), a New Zealand man who lives with 12 dolls, went so far as to marry one of them. He says poignantly, "Those of us who didn't qualify for the real thing used to go without."

Of course I did not know any of this when Jack first came to see me, and despite my attempt to maintain a neutral and open demeanor, I initially felt repelled by the idea of a man who preferred a doll to a real woman. I was offended as a woman and as a feminist, because a man living with a female likeness whose chief purpose is sexual seemed to underscore a basic female suspicion that a man most wants a woman for sex, everything else being secondary or even gratuitous. Still, I reasoned, at least he wasn't hurting anyone. I even wondered if people would be more open to relationships with RealDolls if they knew they could prevent or eliminate sexually transmitted diseases, sex trafficking, or rape (Yeoman & Mars, 2012).

I knew I needed to learn more about this growing doll phenomenon, and Jack's case was the first that triggered my research into it. This, in turn, led me to further investigations into the changing relational landscape being currently reshaped by the technological explosion that is affecting every area of human life. As I plunged into the literature on dolls, robots, avatars, Internet sex, and more, I came to realize that a sea change is taking place in our culture that is redefining human sexuality and human life in total. It isn't just that the rules of the game are changing. The game itself is changing. Chip Walter (2006) claimed that we are living at the tipping point of evolution, a point at which humans are using technology to understand and reverse-engineer their own biology.

Jack made me realize that if I was to understand what was taking place not only with him but with the culture at large, then I had to deeply reconsider and even alter my position regarding relationships, intimacy, gender, human sexuality, and perversion. As I began to understand and appreciate the reasons for Jack's choice and the pain that he carried, I became more empathic to his plight and more understanding of Maya's presence in his life. As much as he loved his doll, Maya, he had decided to come to me because he also felt bad about being with her. He feared something might be wrong with him and he needed help negotiating the territory of his confusion.

An important breakthrough occurred during one session when I noted, almost offhandedly, that his relationship with Maya made me think of Oskar Kokoschka, a turn-of-the-century Austrian-born Expressionist artist. When Jack asked me why, I told him the story I had in mind.

Kokoschka fell madly in love with Alma Mahler, the wife of renowned composer Gustav Mahler. Alma had a passionate and tumultuous affair with Kokoschka. But after he returned from World War I, Kokoschka learned that she had left him for still another man. Furthermore, she had aborted his child. Devastated from the war and Alma's rejection of him, Kokoschka found a way to handle the anguish of his trauma. He commissioned Hermine Moos, an avant-garde doll-maker, to create a life-size doll to match the exact proportions and features (even what Kokoshka called the "shameful" parts) of his beloved Alma Mahler. Kokoschka then defiantly brought his doll to the opera and sat with her at outdoor cafés. His revenge strategy was apparent not only in his creation of the doll but also in his hiring of a maid to tend to her and another woman to circulate stories and make announcements regarding the doll's public appearances. "Look!" he was shouting especially to Alma, "I can replace you with a beautiful dummy!" Additionally, Kokoschka painted more than 100 portraits of himself with his substitute Alma.

Infuriated by Alma's abortion, Kokoschka took part in the creation of a make-believe being that cleverly paralleled a pregnancy in the nine months it took to complete. Kokoschka reversed whatever was done to him and converted it into an artistic project that blurred the boundaries between life and art. He not only created a substitute for the woman who had spurned him but also gave "life" to replace the life that had been destroyed. Kokoschka's attempt to deal with his anguish and rage at his beloved's rejection by creating her replica ended abruptly when the doll was demolished at one of his parties, its body found naked and beheaded outside his home. Interestingly, at the time Kokoschka was writing a play, "Orpheus and Eurydice," based on the famous myth in which Orpheus tries—and fails—to bring his dead lover to life through his art.

Like Kokoschka, Jack had been traumatized. He agreed this was true because, as far back as he could remember, he was made to feel diminished and emasculated by women. Yet Jack did not believe that Kokoschka's doll solely constituted an act of revenge for Alma's betrayal and abandonment.

"Yeah," he said, "I can see that he was getting even, but I think he could have had other even more important reasons."

"Such as?"

"Maybe he couldn't bear to live without Alma. It's one thing to be alone and another thing to be alone with the pain of feeling you're alone because you aren't enough of a man for the woman you love. Because you aren't enough, she leaves you. And then she gets rid of your kid! Think of the symbolism, Doc. She kills the being you made with her. She kills you inside of her! Kokoschka had to be alone with all that. It was just too much. There wasn't enough of him left to be alone with. Just look at his deal. He went to war! He faced bloody death! He saw people, possibly friends, killed! He lost his love! Alma sacked his unborn kid! So, he created a substitute, a doll woman who helped save him. See? He wasn't just getting even. He was saving himself."

"Is that what you're doing with Maya? Saving yourself?"

He looked away from me and started to cry.

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As I watched him sob uncontrollably for the next several minutes, I decided that Maya was more than a perversion.

She was an invention.

For Jack, Maya was a lifesaver.

JACK'S STORY

Following this very moving session, I thought about why I had introduced Kokoschka's tale to the treatment. Was I distancing myself from the action? Was I aware that Jack's was a world I knew little of and, therefore, retrieved that which I knew most closely resembled it in order to make a connection? Did I bring in a third-person narrative, as Chasseguet-Smirguel (2000) introduced Primo Levi's dream to her holocaust survivor patient, as a better suited witness than I could ever be? Perhaps all of these motives were present. In any case, like Kokoschka, Jack would make of his doll a passing phase in his life, though he did not know this yet. He came to therapy looking for answers. He wished to know whether he was "bad" for living with a doll and for feeling happier with Maya than he had ever felt with the women in his life.

When questioned about his past, Jack's memories came easily and with little resistance. He recalled that as a child, he could do nothing right. His mother was an abusive woman who he claimed enjoyed belittling him. She also relentlessly argued with her husband, whom she considered a loser. "You're a carbon copy of your dad," she often told Jack. Furthermore, Jack's mother took no pains to hide the fact that his younger sister was the apple of her eye and a source of constant pride. Although he did well in school, Jack lacked confidence in his social skills and gradually withdrew from others. He stayed in his room and played computer games. In adolescence, he devoured pornography, masturbated compulsively, and fantasized about girls he knew he had no chance of getting close to. As his desires grew, so did his frustration and rage.

In his early twenties, Jack married Mary, the first woman who would have him. He was shy and suffered from premature ejaculation. Mary became impatient with him and, when they argued, she assailed him with comments aimed below the belt. She accused him of not being man enough and eventually informed him that she'd rather sleep with anyone but him. Jack became impotent with Mary and she became indifferent toward him.

After Mary left him, it took Jack years to recover and muster up the courage to approach another woman. When he finally hooked up with Laura, a woman he thought was the exact opposite of Mary, he couldn't bring himself to trust her. Even though Laura seemed utterly sincere, Jack was suspicious of her motives. "I was always waiting for the hammer to come down," he said. "After all, who would want to be with me? Either something was very wrong with her, or she was setting me up for a fall."

In his heart of hearts, he believed that, like his mother and Mary, Laura would abuse and leave him. When she told him that she loved him, Jack thought she was lying to get something from him. Any time she asked him to help her, he felt used and believed she was manipulating him. His insecurity and suspiciousness proved impossible for him to contain. Jack's outbursts of rage took Laura by surprise and frightened her. She too eventually felt the need to leave Jack and refused his pleas to grant him another chance.

After his breakup with Laura, Jack vowed that no woman would ever reject or leave him again. He wished he was not attracted to women, but he hungered for sex and female company,

and he could not ignore the need. One day, he was surfing the web when he came across a blog written by a man named Bill who described the "ideal" relationship he had with his doll, Courtney. Jack was absorbed by Bill's story, especially as he recounted his failed attempts at relationships with real women. But Bill had hit upon a solution: Courtney was always home to greet him. She never nagged him, satisfied his every sexual urge, and looked better than any woman he had ever dated.

Jack was intrigued. He found the website Bill had mentioned in his blog and was astonished and excited by the dolls he saw and the testimonials he read. For the first time in his life, he didn't feel alone or like a misfit. He was directed to Hello Dolly, a cyberhaven for doll enthusiasts, known as "iDollators." Many proudly posted pictures of their dolls; shared information on what it is like to live with and have sexual relations with a doll; and asked questions, including what to do with an aging or broken doll, of their fellow doll enthusiasts. Here was an entire community of men like Jack, and they were all living with dolls. He was sure he was on his way to finding the answer to his life's problems. Best of all there were others, many others, who saw things the way he did.

Jack the loner, Jack the social misfit, Jack the man no woman wanted and who no longer wanted a woman, wished more than anything to belong to this club. He wanted to become an iDollator. Returning to the RealDoll website, he examined the various products and was instantly drawn to its Maya doll. He knew he had to have her and, despite costing him three months' salary, he ordered her on the spot. This would be the beginning of a new phase in his life. From now on, he would be truly self-sufficient and self-contained, taking full responsibility for his life, eliminating from it all the tedious, demeaning, and unpredictable drama. He would also rid it of bone-chilling loneliness. He would strike the ideal balance between being unhappily married and miserably single. No more endless arguments. No more feeling like he could never be good enough, smart enough, supportive enough, flexible enough, strong enough, or man enough, whatever that meant.

No more lying in bed next to an inaccessible woman while longing for sex. No alimony. He would be in charge at last! He would no longer need a woman. He would have his own woman, a woman who would cater to his needs and one who would love and fully accept him.

Love and accept him? How could that be? How could one experience an inanimate object as loving and accepting? I asked him about this and found his answer very interesting.

"Did you see that movie?" he asked. "The one with Tom Hanks. Cast Away?"

"I did."

"With the blood from his hand the character Chuck Noland accidentally gives a soccer ball a face, and then he names it Wilson. Not very imaginative, since the Wilson company makes the ball. But over time Wilson becomes real to him, and he comes to love Wilson and believes Wilson cares about him. After a while you even get the feeling that he's forgotten that Wilson is just a soccer ball. Anything can become alive if you're lonely enough. And let me tell you something, Doc. You don't have to be stranded on an island to be a castaway. Each of us is a kind of island already. And this love we're all looking for and want, it's as much an act of imagination as it is an act of discovery."

I was blown away by what Jack had just said. Of course love and sex are the result of imagination as much as they are reality. How different, then, are any of us from Jack and Maya? I later came across Stern (2010), who referred to the "relationship" in *Cast Away* as evidence of the human "need for a witness that goes so deep that imaginary witnesses must sometimes

suffice" (p. 126). I also thought of how easy it is for one to *create* the other when that other has no history, no say, no input. How easy to project one's wishes and fantasies onto an object when nothing pushes back. The result, however, has the potential to collapse the internal and external worlds (Lemma, 2014).

I asked, "So you love Maya the way Chuck loved Wilson?"

"I waited sixteen weeks for her to arrive, like a kid desperate for Christmas. The box she came in was shaped like a coffin. And when I opened it, I gave her life. The rest is history. Sure I love her."

Well, the rest was not history because, in spite of the happiness Jack experienced when with Maya, he began to feel shame and guilt. While at work, he became distracted by thoughts of living with a doll, thoughts he was too embarrassed to share with anyone. Initially isolated from women, he now became isolated from men too. Jack sometimes became angry and forceful with his compliant doll when he recalled the real women who had caused him pain and disgrace. His reactions scared him and had him begin questioning what he was doing. It is ironic that his "perfect woman" had somehow made him feel wrong and defective, and this is what led him to therapy.

In treatment, we gently explored the possibility of allowing Maya to become a transitional object (Winnicott, 1951/1975) between his previous isolation and a potential relationship with a real woman. Jack cried often in therapy, progressively opening up to me and sharing the terrible insecurity and utter vulnerability that had haunted him from childhood on. He eventually regarded me as a woman who accepted him for who he was. I had no doubt that he was a good man, and I wanted him to know that. I saw that I, too, was a transitional woman for Jack, someone he could use in a transformative way to help transition back to the human world of social relations.

If I could see him as a good man, perhaps he'd come to believe another woman might. That I came to accept his living with a doll, regarding it as an act by which he had saved himself, helped me sit with him nonjudgmentally and helped him overcome his shame and consider the possibility of a real woman. I'll never forget the morning he asked me, "Could you ever be with a man who lived with a doll?" I had long anticipated this question and, later, without mentioning Jack, asked my girlfriends what they'd do if confronted with such a situation. But I smiled anxiously before answering. If I said no, I'd close off any possibility of exploration and hinder Jack's ability to feel good about himself. If I said yes, I'd be too encouraging and possibly misleading. "What do you think?" I finally responded in typical shrinkese.

"I guess it would depend on the person."

"Exactly! Perhaps it doesn't have to be the first thing you tell about yourself to a woman," I advised. "You have many traits a woman would love. You certainly deserve to be loved."

Over the course of a year, Jack slowly ventured out to the mysterious realm of human relationships. He began dating again and even said he was enjoying it. Nonetheless, it took him a while to be willing to let Maya go. Before he stored her in his closet, he again asked if I would meet her. "I've spent hours talking about her," he said. "It only seems right that you meet her before I put her away." This time I acquiesced. I know some would consider this an enactment. And, according to Filippini and Ponsi's (1993, p. 501) definition of enactment as a "reciprocally induced relational episode that is revealed in behavior," then Jack and I engaged in enactment. At least consciously, part of my aim at the time was to help Jack relinquish his fantasy regarding his doll by seeing the doll as a real object in an actual, shared space, thereby facilitating the onset of a mourning process. Unconsciously, I now believe I also wished to meet the third member of

our therapy relationship "ménage" in person. I had heard so much about Maya, I was curious to see the "real" thing before she was to take her place in the closet.

Jack scheduled the session at night and borrowed a friend's van. He rolled Maya into my office on a hand truck (she weighs 100 lb!) covered with a blanket. When he removed her from the dolly and sat her on the couch next to him, I gazed at her, frankly astonished. She looked almost, but not exactly, like a beautiful young woman. There she sat with a passive frozen expression, a full-grown sister of Barbie, a glistening Galatea, Adam's rib transformed, the archetype of womanly beauty with her thick, wild mane of auburn hair; huge, almond-shaped green eyes; and a plump-lipped, sensual mouth. Her hourglass body matched the cultural ideal of feminine beauty. Her hands and feet were fine and delicately crafted with hot pink nail polish on elegantly shaped nails. Intensely curious, I wanted to see her naked, but of course that was out of the question.

I was uncomfortable, too, because the scene felt so uncanny, the two of us talking about Jack letting go of someone who was not a someone—this doll who looked like a woman, this beautiful container for fantasy and lifeboat cast upon the lonely sea of existence. Yet as the session continued, I relaxed. He was not letting something go, I told myself; rather he was retrieving something—a hope, a dream, a quest for love—withdrawing it from the doll and bringing it back into himself. Now he could be enough, at least enough to try again with a live woman. Although that's not what all doll owners want, that's what Jack wanted.

At one point during the session, he told me that in letting her go, he was abandoning her. "And this part sounds really crazy, but I have this weird feeling she'll be hurt by it!"

"You feel that she'll be hurt by you leaving her?"

"I know she can't be hurt. I know what she is, Doc! I guess I'm the one that will be hurt," he said. "Then he extended his hand and touched her gently on the face. "I'll miss you, Maya," he whispered. "I really will" (Figures 4 and 5).

For an uncanny moment I saw him touching a real woman. I sharply drew in a breath to ease my shock, because it felt for that split second that I had directly experienced his love for the doll. I also experienced more directly than ever before how human relationships are as much an act of imagination as an act of discovery. All the people and things we love live inside us and are nurtured by the flesh of memory and the blood of imagination. Everything, whether we admit it or not, is colored by fantasy. How much is too much? We rarely know for sure.

As the session ended, he looked at his doll and said, "I know she's not quite the woman, Doc. But you have to admit, she's more than a doll."

DISCUSSION

Although I had wished to help Jack see his doll as a nonhuman object, he helped me to see her as much more than a doll. Jack continued the work of establishing a relationship with a real woman. It wasn't easy. It came in fits and starts. At times he spoke of Maya with nostalgia, recalling a time when things seemed easier, less messy, and under his control. Yet as he came to better understand the pain he felt at the hands of the women in his life, and the anger he harbored as a result of it, and as I became a witness to and container of that pain (Peskin, 2012), he began to move away from the object world toward the human. Rather than breathe life into a



FIGURE 4 Davecat with Sidore. Photo courtesy of Danielle Knafo and Avi Setton.

nonhuman object in order to protect himself from "relational anguish" (Lingiardi, 2008), he was now ready to emerge from his omnipotent psychic retreat (Steiner, 1993) to engage in human relatedness, with all the pain and joy it entails. I knew that I had fostered his use of the doll as a transitional object to help him become comfortable with a real woman, one he had less control over. I also realized that I, even more than Maya, had become the most significant transitional object for Jack. After all, it was I who came to represent the transitional space between being with his doll and being with a real woman. As Goren (2003) and Levy-Warren (2012) wrote, psychoanalysis can serve as a potent antidote to the technological commodification in presentday society.

In his 1927 paper on fetishism, Freud wrote about the defense mechanism of disavowal that takes place in perversion. He explained how some boys and men are unable to accept the



FIGURE 5 Davecat with his wife, Sidore. Photo courtesy of Danielle Knafo and Avi Setton.

difference between the sexes due to their fear of castration. The fetish becomes the substitute (symbolic) penis in the woman (e.g., the high heel shoe) whose function is to disavow the reality of her missing/castrated penis/actual genital. For years, theorists wrote of the disavowal of castration as the primary problem in perversion. I would like to introduce a new type of disavowal that takes place in our age of advanced technology: disavowal of the human. Whereas Freud (1905, 1927) and Lacan (1958/2002) spoke of the difficulty people had accepting the distinction between male and female, I contend that many today disavow the difference between the human and nonhuman. Jack, like many people who become enamored with their machines, develop "as if" relationships with them all the while acting and feeling as if they are "the real thing." Just as Freud's perverse individual knew, on some level, that he was dealing with a woman; on another level, he believed that his love object possessed a phallus. Similarly, Jack knew he lived with a doll-"I know what she is, Doc!"-yet his behavior and emotional attitude convinced him that he was in a relationship with a real woman. The makers of high-end dolls were clearly aware of this profound and contradictory dialectic when they named their product "RealDoll." The amalgamated word, an oxymoron, unites the double layers of consciousness: she is real and she is a doll. She is both human and nonhuman at one and the same time.

I have argued that the dual tendencies to humanize and dehumanize are universal and find their roots in human evolution and psychology. The creation of machines, dolls and robots that promise companionship, sex, and even love demonstrate how we are taking charge of our evolution. It also reveals the powerful role fantasy plays in our relationships and raises the question of how much love and sex—whether with a human, a doll, or a machine—are one-sided products of our own imaginations. Understanding our relationships to technology exposes, amplifies, and limits this connection.

In 1951, Marshall McLuhan imagined the merging of sex and technology in his prescient book *The Mechanical Bride: Folklore of Industrial Man*. Though the way we express intimacy has changed over time, the need to have it remains constant. Life is a short and often frightening journey, and it is always a good thing to have a hand to hold, whether that hand is human or made of plastic, silicone, or metal.

Jack's story humanizes the technological revolution and brings home the irrefutable truth that everyone's social and romantic life will be profoundly affected by the behemoth of technology. As we increasingly turn to advanced technology to satisfy our most basic needs, we will need to answer a number of questions: Is our ability to live comfortably in virtual worlds leading us to a state of disembodiment and dehumanization, or does it signal an expansion of our human capabilities? In joining with the machine do we become divorced from our humanity, or are we extending the limits of its possibilities? What is sex and gender in a world in which the body can be altered, and we are no longer certain what is meant by the terms feminine and masculine or "real" and "natural"? What is in store for us, and how can we ready ourselves? Where is the new technology really taking us? What will we and the world be like when we get there? And, finally, can we continue to assume, as Harry Stack Sullivan (1953) famously proclaimed, "we are all much more simply human than otherwise" (p. 53)?

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REFERENCES

- Akhtar, S. (2003). Things: Developmental, psychopathological, and technical aspects of inanimate objects. Canadian Journal of Psychoanalysis, 11, 1–45.
- Altman, N. (2008). On suicide bombing. International Journal of Applied Psychoanalytic Studies, 5, 51–67. doi:10.1002/ (ISSN)1556-9187
- Bach, S. (1994). The language of perversion and the language of love. Northvale, NJ: Aronson.
- Bain, P., Vaes, J., & Leyens, J.-P. (2014). Humanness and dehumanization. New York, NY: Taylor & Francis.
- Buber, M. (1958). I and thou (R. G. Smith, Trans.). New York, NY: Scribner's.
- Cacioppo, J., Cacioppo, S., Gonzaga, G., Ogburn, E., & VanderWeele, T. (2013). Marital satisfaction and break-ups differ across on-line and off-line meeting venues. Retrieved from http://www.pnas.org/cgi/doi/10.1073/pnas.1222447110
- Caparrotta, L., & Lemma, A., Eds. (2014). Introduction. In *Psychoanalysis in the technoculture era*. London, UK: Routledge.
- Chapmann, G. (2010, March 18). ROXXXY Robot girlfriend: Lifesize robotic sex companion debuts. Retreived from Huffingtonpost.com
- Chasseguet-Smirguel, J. (2000). Trauma et croyance [Trauma and belief]. Revue Francaise de Psychoanalyse, 64, 39-46.
- Cunion, E. (2012, March 14). Man makes married life simple. Retrieved from izismile.com/2012/03/14/man_makes_married_life_simple_12_pics_1_video.html
- Curley, G. (2015, May). Dawn of the sexbots. Vanity Fair, 154–164.
- Dalal, F. (2006). Racism: Processes of detachment, dehumanization, and hatred. *Psychoanalytic Quarterly*, 75, 131–162. Davis, M. (1996). *Empathy: A social psychological approach*. Boulder, CO: Westview Press.
- Derntl, B., Finkelmeyer, A., Elckoff, S., Kellerman, T., Falkenberg, D., Schneider, F., & Habel, U. (2010). Multidimensional assessment of empathic abilities: Neural correlates and gender difference. *Psychoendocrionology*, 35, 67–82.
- Ferguson, A. (2010). The sex doll: A history. Jefferson, NC: McFarland.

Filippini, S., & Ponsi, M. (1993). Enactment. Rivista di Psicoanalisi, 39, 501-518.

- Forbes, B. (1975). The Stepford wives. Culver City, CA: Columbia Pictures.
- Fredrickson, B. L., & Roberts, T.-A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, 21, 173–206. doi:10.1111/pwqu.1997.21.issue-2
- Freud, S. (1905). Three essays on sexuality. Standard Edition, 7, 135-174.
- Freud, S. (1927). Fetishism. Standard Edition, 21, 152–157.
- Frey, T. (2011). *Fifty-five jobs of the future: Future jobs that don't exist today*. Retrieved from http://www.futuristspeaker. com/2011/11/55-jobs-of-the-future/
- Galatzer-Levy, R. (2012). Obscuring desire: A special pattern of male adolescent masturbation, Internet pornography, and the flight from meaning. *Psychoanalytic Inquiry*, *32*, 480–495. doi:10.1080/07351690.2012.703582
- Gillespie, C. (2007). Lars and the real girl. Beverly Hills, CA: Metro-Goldwyn-Mayer.
- Goren, E. (2003). America's love-affair with technology: The transformation of sexuality and the self over the 20th century. *Psychoanalytic Psychology*, 20, 487–508. doi:10.1037/0736-9735.20.3.487
- Grossman, W. (1969). Anthropomorphism—Motive, meaning, and causality in psychoanalytic theory. *Psychoanalytic Study of the Child*, 24, 78–112.

Hall, J. (1984). Nonverbal sex differences. Baltimore, MD: Johns Hopkins University Press.

- Harris, L., & Fiske, S. (2011). Dehumanized perception: A psychological means to facilitate atrocities, torture, and genocide? Zeitschrift für Psychologie/Journal of Psychology, 219, 175–181. doi:10.1027/2151-2604/a000065
- Haslam, N. (2006). Dehumanization: An integrative review. Personality and Social Psychology Review, 10, 252–264. doi:10.1207/s15327957pspr1003_4
- Haworth, A. (2013). Why have young people in Japan stopped having sex? Retrieved October 21, 2013 from The Guardian.com./
- Iacoboni, M. (2009). Imitation, empathy, and mirror neurons. Annual Review of Psychology, 60, 653–670. doi:10.1146/ annurev.psych.60.110707.163604
- Ishiguro, H. (2013, September). Studies on very humanlike robots. Presented at the International Conference on Instrumentation, Control, Information Technology and System Integration, Nagoya University, Aichi, Japan.
- Jonze, S. (2013). Her. Beverly Hills, CA: Warner Brothers Pictures.
- Keen, S. (1991). Faces of the enemy: Reflections of the hostile imagination. New York, NY: Harper.
- Kernberg, O. (1995). Psychopathology. Love relations: Normality and pathology (pp. 64–80). New Haven, CT: Yale University Press.
- Kernberg, O. (2003). Sanctioned social violence: A psychoanalytic view. Part II. International Journal of Psychoanalysis, 84, 953–968. doi:10.1516/NNQX-V7X9-DGCV-M878
- Khan, M. (1979). Alienation in perversions. New York, NY: International Universities Press.
- Lacan, J. (2002). The signification of the phallus. In B. Fink (Trans.), *Ecrits: A selection* (pp. 271–280). New York, NY: Norton. (Original work published 1958)
- Lane, M. (1999, June 15). Real doll: The ultimate pleasure doll. Monk Magazine.
- Lemma, A. (2014). An order of pure decision: Growing up in a virtual world and the adolescent's experience of the body. In A. Lemma & L. Caparrotti (Eds.), *Psychoanalysis in the technoculture era* (pp. 75–96). London, UK: Routledge.
- LeMoncheck, L. (1985). Dehumanizing women: Treating persons as sex objects. Totowa, NJ: Rowman & Allanheld.
- Levy, D. (2007). Love and sex with robots: The evolution of human-robot relationships. New York, NY: HarperCollins.
- Levy-Warren, M. (2012). Press pause before send: A case in point. International Journal of Clinical Psychology, 68, 1164–1174. doi:10.1002/jclp.2012.68.issue-11
- Lingiardi, V. (2008). Playing with unreality: Transference and computer. International Journal of Psychoanalysis, 89, 111–126.
- Livingstone Smith, D. (2011). Less than human: Why we demean, enslave, and exterminate others. New York, NY: St. Martins.
- MacKinnon, C. (2006). Are women human? Cambridge, MA: Belknap Press.
- McClure, E. (2000). A meta-analytic review of sex differences in facial expression processing and their development in infants, children, and adolescents. *Psychological Bulletin*, *126*, 424–453. doi:10.1037/0033-2909.126.3.424
- McLuhan, M. (1951). The mechanical bride: Folklore of industrial man. New York, NY: Vanguard Press.
- Mori, M. (2012). The uncanny valley (K. F. MacDorman & N. Kageki, Trans.). IEEE Robotics and Automation Magazine, 19, 98–100. (Original work published 1970)
- MSNBC/Stanford/Duquesne Study. (2000, January 26). Retrieved from http://bebroken.com/bb/resources/newsletters/ stats.shtml

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The National Campaign to prevent teen and unplanned pregnancy. (2008). Sex and Tech: Results from a survey of teens and young adults. Retrieved from http://www.thenationalcampaign.org/sextech/PDF/SexTech_Summary.pdf

Nussbaum, M. (1995). Objectification. Philosophy and Public Affairs, 24, 249-291.

- Octavarium08. (2013). Her: Spike Jonze's prophetic reflection on social isolation and dependency on evolving technologies is as sweet as it is disconcerting. Retrieved from http://generationfilm.net/2013/11/20/movie-review-her-spikejonzes-prophetic-reflection-on-social-isolation-and-the-dependency-on-evolving-technologies-is-as-sweet-as-it-isdisconcerting/
- Organization for Economic Cooperation and Development. (2011). Virtual worlds: Immersive online platforms for collaboration, creativity and learning (Economy Papers No. 184). OECD Publishing.
- Oz, F. (2004). The Stepford wives. Culver City, CA: Columbia Pictures.
- Peskin, H. (2012). "Man is a wolf to man": Disorders of dehumanization in psychoanalysis. *Psychoanalytic Dialogues*, 22, 190–205. doi:10.1080/10481885.2012.666150
- Saxe, R., Tzelnic, T. & Carey, S. (2006). Five-month old infants know humans are solid, like inanimate objects. *Cognition*, 101, B1–B8.
- Schulman-Green, D. (2003). Coping mechanisms of physicians who routinely work with dying patients. *Omega: Journal of Death and Dying*, 47, 253–264.
- Shontell, A. (2014, February 27). Hot dating app Tinder now matches 10 million people per day, up from 5 million in December. *Business Insider*. Retrieved from http://www.businessinsider.com/tinder-growth-explodes-after-sochi-2014-2
- Steiner, J. (1993). Psychic retreats: Pathological organizations of the personality in psychotic, neurotic, and borderline patients. London, UK: Routledge.
- Stern, D. (2010). Partners in thought: Working with unformulated experience, dissociation, and enactment. New York, NY: Routledge.
- Stoller, R. (1973). Sex and dehumanization. International Journal of Psychoanalysis, 54, 121-122.
- Stoller, R. (1975). Perversion: The erotic form of hatred. London, UK: Karnac.
- Stoller, R. (1979). Sexual excitement: Dynamics of erotic life. New York, NY: Pantheon Books.
- Stoller, R. (1985). Observing the erotic imagination. New Haven & London: Yale University Press.
- Sullivan, H. S. (1953). The interpersonal theory of psychiatry. New York, NY: Norton.

Szaz, T. (1973). Ideology and insanity: Essays on the psychiatric dehumanization of man. London, UK: Calder & Boyars.

- Thomsen, L., Frankenhuis, W., Ingold-Smith, M., & Carey, S. (2011). Big and mighty: Preverbal infants mentally represent social dominance. *Science*, 33, 477–480.
- Turkle, S. (2011). *Alone together: Why we expect more from technology and less from each other*. New York, NY: Basic Books.
- Turkle, S. (2013). Transitional objects. In J. Brockman (Ed.), *This explains everything: Deep, beautiful and elegant theories of how the world works* (pp. 296–298). New York, NY: Harper.
- Walter, C. (2006). Thumbs, toes and tears: And other traits that make us human. New York, NY: Walker & Co.
- Weizenbaum, J. (1966). ELIZA—A computer program for the study of natural language communication between man and machine. *Communications of the ACM*, 9, 36–45. doi:10.1145/365153.365168
- Wellings, K., & Johnson, A. M. (2013). Framing sexual health research: Adopting a broader perspective. *The Lancet*, 382, 1759–1762. doi:10.1016/S0140-6736(13)62378-8
- Winnicott, D. W. (1975). Transitional objects and transitional phenomena. In *Through paedeatrics to psycho-analysis* (pp. 229–242). New York, NY: Basic Books. (Original work published 1951)
- Wolf, N. (1991). The beauty myth: How images of beauty are used against women. New York, NY: William Morrow & Co. Wolf, N. (2013, December 11). How porn is destroying modern sex lives. Retrieved from Dailymail.co.uk
- Yeoman, I., & Mars, M. (2012). Robots, men and sex tourism. Futures, 44, 365-371.

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