Realisms and Indexicalities of Photographic Propositions

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ABSTRACT

In the eras of both film-based and digital photography, and to differing degrees and with differing consequences in documentary and art photography, the role of indexicality in establishing the veracity of the image has been paramount in photo theory. There is a need, however, for expanding the ways we think about indexicality in photography. In addition to the familiar concepts of the trace, citation, reference, social diacritics, interactional cues, and artists' intentions, the indexicality of photography may be better understood through appeal to less direct, or more densely mediated, modalities of indexicality. These include qualia (hypostatically abstracted -nesses), dicentization (the upshifting of icons into indexes of contiguity), and propositionality (the assertion of messages subject to truth claims).

Here the donkey serves precisely as a probable likeness of the zebra. It is true we suppose that resemblance has a physical cause in heredity; but then, this hereditary affinity is itself only an inference from the likeness between the two animals, and we have not (as in the case of the photograph) any independent knowledge of the circumstances of the production of the two species.

—C. S. Peirce, "What Is a Sign?"

In the eras of both film-based and digital photography, and to differing degrees and with differing consequences in documentary and art photography, the role of indexicality in establishing the veracity of the image has been paramount in photo theory. There is a need, however, for expanding the ways we think about indexicality in photography. In addition to the familiar concepts of the trace, citation, reference, social diacritics, interactional cues, and artists' intentions, the indexicality of photography may be better understood through appeal to less direct, or more densely mediated, modalities of indexicality. These

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include qualia (hypostatically abstracted -nesses), dicentization (the upshifting of icons into indexes of contiguity), and propositionality (the assertion of messages subject to truth claims). All of these have a place in the indexical and broadly semiotic analysis of the production, circulation, and reception of photographs. We may ask, what are the connections between these various indexicalities and the ideologies of realism (or various realisms) to which qualia, dicentization, and propositionality contribute? To begin to answer this question it is germane to consider semiotic approaches to realism alongside examples where the fidelity of the photograph as directly indexical of reality is challenged. This challenge is found again and again in the suspicion of manipulation.

Critic Allan Sekula's account of an early period in the history of photography yields the insight that realism as ontological commitment is deeply bound to realism as formal aesthetic. Sekula's analysis treats differing instrumental realisms in late nineteenth-century attempts at criminal documentation in photographs. He connects such realisms with philosophical (metaphysical) realism (belief in types) and contrasts this with nominalism (belief in particulars/individuals). Sekula also incorporates indexicality and symbolicity into his discussion of realism and nominalism. We may jump off from his treatment in order to pivot to multiple kinds of indexicalites and how they achieve generality in multiple ways. They may upshift without recourse to symbols per se—through metapragmatics as legisign-level normative regimentation of indexes in discourse and culture. They may appear as qualia, hypostatically abstracted -nesses of things, as signs such as graininess or lens flare that can be separated from particular images to give a sense of realness. They may impress upon the viewer an indexical connection with some scene displaced in time and space through dicentization as the realization of contiguity from likeness, and through propositionality as the capacity of the image to be interpreted as composed of a subject and predicate that can assert a truth.

Image manipulation, the modification of what is putatively the "real" situation before the camera, has long been a topic of heated ethical and professional interest among photographers and critics. Controversies around the truth of photographs are not new. In the twentieth century they often turned on whether or not photographers had posed the scene of photographic encounter as well as questions of darkroom manipulation of negatives. Twenty-first century discourses about manipulation often focus on postprocessing with computer programs such as Photoshop. Manipulation, in particular as it is taken to be a method whereby the producer of a photographic image may "lie" about what an image depicts, also serves as a testing ground for popular beliefs in the fidelity of rep-

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resentation. That a photo may count as a lie presumes that it can or should primarily count as truthful. Such interpretive assumptions point to the long-standing tendency of producers and viewing publics to read photographs as propositions.

One of the most famous war photographs ever taken is Robert Capa's 1926 photograph of the death of a loyalist Spanish soldier. Subsequent decades since its original publication in contemporary French and American news magazines, followed by its display in countless books, galleries, and digital venues, have seen questions raised about the truth of the image. What compels such questions is my concern. Looking at the image, the context of its early circulation, and the ensuing controversy about its veracity, I am interested not only in claims that it is a lie, but primarily in the vigorous defense of the image as truthful. Those who push back against naysayers, in particular critic and Capa biographer Richard Whelan, assert the truth of Capa's photo, that it indeed depicts the moment of death of the soldier, not a staged enactment of death, and that it was taken more or less at the precise time and location originally reported. Whelan's argument inevitably ends up being not merely about the image in particular, but about Capa's integrity, his social(ist) commitments, the tenets and ethics of photojournalism, and in the end about the propositionality of the photograph in general. To make his case he appeals, in the manner of a detective story, to latent indexicalities of various kinds in the image and in accompanying discourses, reading the conditions of a moment long past.

The move from film to digital photography has raised questions in photojournalism over the "integrity of the image." Fred Ritchin's account of the skeptical turn that accompanied the newfound ease of digital manipulation is focused on the ways it was seen to unmoor the indexicality of images. Photographer Jeff Wall explicitly used both film and digital techniques to produce images like *Dead Troops Talk* that offer a visual challenge to the boundaries between art and documentary photography and between the truth and/or falsity of the image and the value of frank literalness canonized in war photography such as that of Robert Capa (DeDuve et al. 2010). Wall's own theory of the wet and the dry in photography suggests that we may think through these qualia as offering an alternative approach to indexicality, one that sidesteps certain problems in the skepticism of the digital. By using photographic qualia like the wetness and dryness of photos to motivate new questions we may ask of realism, is realness a qualia?

Returning to Sekula's linking of philosophical (metaphysical) and aesthetic realisms, Peirce's visual theory of the proposition offers a way to connect the qualia of photographs with their potential to be read as dicent signs asserting

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truthful connections to reality. This involves a semiotic account of how photographs as images combine subjects (indexes) and predicates (icons) but without the linear syntax of the linguistic proposition. Photographs smear the argument and predicate to yield a sort of pseudo- or protopropositionality. The way they are read, or how they generate interpretants, builds on this latent semiotic quality, and the role of qualia emergent through silver halide crystals and pixels is a key factor in the apprehension of the photograph as propositional statement about the real. So too is the knowledge of the original spatiotemporal copresence and the mechanics of grafting through glass and a light-tight box, the fundamental indexical fact with which we began.

Realisms

Allan Sekula treats a sea change in imaging in his essay "The Body and the Archive" (1986). He is concerned with the historical and instrumental conditions that guided the early development of photography in the mid- to late nineteenth century. Sekula asserts that photographs both threatened and gave promise to underlying bourgeois social forms. In particular, photographs emerged in their early history as "functioning both honorifically and repressively" (Sekula 1986) with respect to the human subjects they represented. This double system of representation was institutionalized in several ways, including ethnological recording of human racial types. Sekula's focus is on criminal identification photographs and their systems of archiving and retrieval. The instrumental nature of these photographs, to identify deviant individuals and/or types for capture and arrest, is for Sekula a symptom of what he calls instrumental realism. "Notwithstanding the standard liberal accounts of the history of photography, the new medium did not simply inherit and 'democratize' the honorific functions of bourgeois portraiture. Nor did police photography simply function repressively, although it is foolish to argue that the immediate function of police photographs was somehow more ideological or positively instrumental than negatively instrumental. But in a more general, dispersed fashion, in serving to introduce the panoptic principle into daily life, photography welded the honorific and repressive functions together" (Sekula 1986, 10).

The potential of photography's double system of representation leads to both an archival recording of social hierarchy and the reification of the possessive individual subject. Tension between photography's archiving of types and imprinting the detail of individual characteristics is a tension between two developing understandings of how photographs mean. "The difference between these two models of photographic meaning are played out in two different approaches to

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the photographic representation of the criminal body: the 'realist' approach, and by realism here I mean that venerable (medieval) philosophical realism that insists upon the truth of general propositions, on the reality of species and types, and the equally venerable 'nominalist' approach, which denies the reality of generic categories as anything other than mental constructs" (Sekula 1986, 18).

The medieval philosophical debate between realism and nominalism was a central concern of C. S. Peirce's philosophy. His commitment to the realist position was in turn a central tenet of his semiotics. For a semiotic approach to the issue of realism, both photographic and metaphysical, it is important to review what characterizes that debate, and in order to understand Peirce's realism it is helpful to begin with what it was opposed to, nominalism. Nominalism is characterized specifically by the assertion (or assumption) that only individuals exist, and by the separation in dualistic fashion of an internal domain of words or concepts from an external domain of particular things. Peirce argued against nominalist philosophies inasmuch as "nominalism assumes and realism denies that 'reality is something independent of representative relation'" (Peirce 1868, quoted in Thompson 1953, 51–52). The realist claim that reality and representation are one is aligned with the realist refutation of the nominalist position that we only know particular things, not generals. Nominalists who assert that only particulars exist, says Peirce, hold the "metaphysical figment" that beneath cognition there is a "thing in itself, an incognizable reality." Instead Peirce asserts that "generals must have a real existence" (*W* 2:239). Peirce's project of building a realist metaphysics alongside a pragmatist epistemology was in part a reaction to the scholastics and debates between nominalists such as Occam versus realists such as Thomas Aquinas and Duns Scotus.

According to Edward Moore (1952), during the Middle Ages the relevant question was "Is there anything in the external world that corresponds to our conceptions of it?" There was a range of answers. "The first was extreme realism or platonism. According to this view there are universal entities existing in an extra-physical realm," platonic ideals or forms to which our ideas conform. "At the opposite extreme from this view was nominalism. Nominalism models the idea on the thing. Since the thing is particular, the idea is particular. There are no general ideas because there are no general things. What are called general ideas, or concepts, are merely names, *nomina*" (Moore 1952, quotations above on 407). In between the extremes was Aristotelian moderate realism, supported by Duns Scotus and later by Peirce: "All knowledge is in terms of concepts. If these concepts correspond to something that is to be found in reality they are real and man's knowledge has a foundation in fact; if they do not

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correspond to anything in reality they are not real and man's knowledge is of mere figments of his imagination" (Moore 1952, 408).

Peirce sided with the moderate Aristotelian realist position of Scotus and used it as a base for his own arguments against Cartesian dualism and in favor of his pragmatist approach to science as a collective, and teleological, quest toward knowing things as they really are. "The real, then, is that which, sooner or later, information and reasoning would finally result in, and which is therefore independent of the vagaries of me and you. The very origin of the conception of reality shows that this conception essentially involves the notion of a COMMUNITY, without definite limits, and capable of a definite increase in knowledge" (*W* 2:239).

Sekula's account of the history of criminal photography is organized around these two opposing perspectives rooted in the medieval debate. First is the approach of "would-be scientists" like Francis Galton who "sought a knowledge and mastery of an elusive 'criminal type.'" Second were "the 'technicians' of crime" such as Alphonse Bertillon who "sought knowledge and mastery of individual criminals" (Sekula 1986, 18). The "scientists," like Galton, whose practice included superimposition of multiple portraits to reveal latent commonalities across individual faces of criminals and to thus amass representations of criminal types, were on the side of medieval scholastic realism (Duns Scotus). The "technicians," like Bertillon, who sought to establish precise metrics and techniques to photographically measure individual bodies for positive identification, were on the side of medieval scholastic nominalism (Occam).

The connection that Sekula establishes between cultural-historical theories of representation and earlier metaphysical debates between realism and nominalism is a brilliant move that allows us to surpass the usual boundaries of either aesthetic or semiotic approaches to the photograph. By warning against an "overly monolithic conception of realism," Sekula subordinates multiple realisms: optical realism, instrumental realism in scientific, technical, and bureaucratic veins, artistic realism, photographic realism, literary realism, and so on, to philosophical realism, to the truth of general propositions. From a Peircean perspective, it moves discussions about whether photographs are indexical or not, and if so how, under the umbrella of semiotic inquiry itself as a philosophically realist enterprise. It provides a way to connect the domain of aesthetic realism, where we may ask how photographs are interpreted as partaking of visual qualia of "realness," with the domain of metaphysical realism (and nominalism), where we may ask how propositions can be interpreted generally as truthful.

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However, Sekula's conclusions suffer from at least two problems. The first limitation is strictly semiotic. When he directly cites Peirce, he contrasts index and symbol in relation to nominalism and realism, respectively. Sekula's says of nineteenth-century criminal photographers like Bertillon and Galton:

> The American philosopher and semiotician Charles Sanders Peirce, their contemporary, made a useful distinction between signs that referred to their objects indexically, and those that operated symbolically. To the extent that photographs are "effects of the radiations from the object," they are indexical signs, as are all signs which register a physical trace. Symbols, on the other hand, signify by virtue of conventions or rules. Verbal language in general, and all conceptual thought, is symbolic in Peirce's system. Paradoxically, Bertillon, in taming the photograph by subordinating it to the verbal text of the *portrait parlé*, remained wedded to an *indexical* order of meaning. The photograph was nothing more than the physical trace of its contingent instance. Galton, in seeking the apotheosis of the optical, attempted to elevate the indexical photographic composite to the level of the *symbolic*, thus expressing a *general law* through the accretion of contingent instances. (Sekula 1986, 54–55)

Of course there is more than one way to elevate the indexical photograph to higher orders of generality. The symbol is not necessarily the best way to characterize how photos or other signs partake of generality. For example, concepts such as metapragmatics, dicentization, and qualia offer ways to think about patterned and/or generalized (legisign) types of indexicality without appeal to the symbol(ic).

Much of Peirce's influence on the anthropology of language and culture has been felt in analysis of specific sign types—icon, index, symbol—as they function in social interaction. Indeed, the union of Peirce's triadic semiotic model of the sign with Saussure's dyadic structuralist model has been motivated by the additional flexibility of analysis that it provides. Less acknowledged in semiotic anthropology is the role of Peirce's realism in offering a challenge to nominalism. The view that our lives are caught up, even constituted, in sign processes that bridge the "internal" and "external" by accounting for continuity between human thought, communication, and the world of things provides an encompassing frame for studying semiotic practice. And it is a rejection of what Peirce saw as the dichotomizing Cartesian tendency of nominalism into worlds of thought or signs and represented things that is one of the bases for his realism. Because Peirce's philosophy utilizes one and the same toolkit to describe both

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expression and introspection, all thought is dialogue, mediated by signs, with an immediately prior self, and all communication with others is calibration of interpretants—wherein I get you to take the same relation to an object as I do, such that my words (or images) make you a sign of my thought. Just as we all are signs: "The word or sign that the man uses *is* the man himself. For as the fact that every thought is a sign, taken in conjunction with the fact that life is a train of thought, proves that man is a sign; so, that every thought is an *external* sign, proves that man is an external sign" (*W* 2:241).

The second problem in Sekula's analysis relates to the associations that he sets up between the repressive and honorific functions of social documentary photography. In its early history, Sekula is suggesting, realist photographers attempted to elevate indexicality to the symbolic order, abstracting from the inscription of light to the assertion of generals. Meanwhile, nominalist photographers stood firm in the domain of the image's direct indexical impression in light, asserting the uniqueness of the existence of the particular depicted subject in reality. The implications of the move from the recognition of the connection of philosophical realism and aesthetic realisms matter for photography in general, not just for the early history of criminal photography. Sekula identifies works in the later history of documentary photography that followed the realist trend in the ways that images were positioned as standing for classes of people such as the peasant, the worker, the Indian, the primitive. In the end, Sekula links realism with the generalism of the archive, and subsequently with the repressive function of the photograph. Hence the title of the essay, "The Body and the Archive." He next praises twentieth-century documentary photographers such as Walker Evans who he sees as having "the most complicated and intellectually sophisticated response to the model of the archive" (Sekula 1986, 59). As opposed to cataloging people in types, Evans exploits "the 'poetic' structure of the sequence" in exposing in his images the specific injustices of their social conditions. Sekula would have the nominalist photographer be the candidate for fulfilling the honorific function of making social photographs as documents.

Conversely, the overall equation of realism with the archive leads Sekula to associate the function of realist photography with repression rather than honorification. Why should this be? One of Peirce's critiques of nominalism was its emphasis on the reality of particulars alone, which he claims leads to an overemphasis on the individual in society over and above the community. The commitment to generals, not only particulars, extends to a commitment to community, not only individuals. Consider Peirce's own 1871 claim of realism's relevance

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as he sides with the social over individualizing reductionism in respect of human life.

> Though the question of realism and nominalism has its roots in the technicalities of logic, its branches reach about our life. The question whether the genus homo has any existence except as individuals, is the question whether there is anything of any more dignity, worth, and importance than individual happiness, individual aspirations, and individual life. Whether men really have anything in common, so that the *community* is to be considered as an end in itself, and if so, what the relative value of the two factors is, is the most fundamental practical question in regard to every public institution the constitution of which we have it in our power to influence. (*W* 2:487)

Peirce's consistent "emphasis on the community, over against the nominalist doctrine of individualism," places social inquiry at the base of his philosophy (Roberts 1970, 71–72). Keeping in mind Peirce's commitment to realism as a prerequisite to semiotic analysis, we should not be too fast to embrace nominalist modes of representation as somehow less repressive of the subject. In other words, perhaps realist representation in photography does not always and only fulfill the repressive archival function of the state against the subject. What are we to make of this conclusion for a semiotic approach, especially one that is grounded in some form of realism? How might we think our way out of this chain of associations?

W. J. T. Mitchell (2015), in his own passage on, in this case, a photograph taken by Allan Sekula, is also drawn to philosophical realism. Mitchell remarks that "photography (both chemical and digital) plays both sides of the fence with regard to the debate between science and common sense, verifiable truths, testable hypotheses, and the idealizations of desire. And that is why I come to rest, finally, with philosophical realism (as distinct from nominalism), the view that abstract ideational entities are 'real entities' in the real world—more real, in fact, than our confused repertoire of sense impressions and opinions" (Mitchell 2015, 64). For Mitchell, "realism is a project for photography, and for images more generally, not something that belongs to them by nature" (2015, 64). I take this to mean that images, perhaps especially photographs, are made real through various sorts of social labor and contestation. The qualities that inhere in images are evaluated, dissected, transported in and out of specific images, such that they can become indexes of the real, or the feeling of what is real. That people believe photos are realist(-ic) is testimony to much ideological and semiotic work put

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into their production and interpretation. Likewise when the realism of photos is disbelieved, challenged, or otherwise undercut.

Robert Capa's *Falling Soldier*

Accusations of staging or posing have been a flashpoint of some exemplary photojournalistic images. Perhaps most contentious of all is Robert Capa's 1936 *Falling Soldier*. The photo was first published in the French magazine *Vu* shortly after being taken in Spain in 1936, along with a suite of other photos Capa made of the Spanish Civil War. It appeared in the United States only in the following year, when *Life* magazine published the photo alone on a single page in its issue of July 12, 1937 (fig. 1). In the original issue, the photo depicting the struggle between socialism (it seems clear that Capa's sympathy with the Loyalists was motivated by his own allegiance to the political left) and fascism (it was a fascist bullet that was to have struck this soldier) appeared alongside an advertisement that embodies (the banalities of) capitalism. Note too the macabre coincidence of the advertisement for a hair product, "Vitalis," named after life, that claims to make your scalp "come to life," alongside the image and caption proclaiming "death in Spain."

It has been hailed as the greatest war photo ever, yet has been subject to a barrage of claims that it is a fake, and counterclaims that it is true. Amid the his-



Figure 1. *The Falling Soldier*, by Robert Capa, in *Life* magazine, 1937

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torical confusion, what is nearly certain is that the fall, whether caused by a fascist bullet or by the direction of Capa, occurred during a day of otherwise uneventful training and that Capa had been photographing the troops with some degree of staging. Is it posing if horsing around and acting the soldier for the camera in moments of calm is interrupted by a chance shot in what after all was a war zone? The supposed integrity and realism of war photography, the source of the heat of the controversy, is at stake in arguments both pro and con.

Capa biographer Richard Whelan published "Robert Capa's *Falling Soldier*: A Detective Story" in *Aperture* magazine in 2002. His concern is to marshal evidence against claims that the photo was faked. His primary antagonist is British author Phillip Knightly, who published in 1975 *The First Casualty: The War Correspondent as Hero and Myth* (Knightly 2004). The book takes a historical perspective on war reportage and questions the veracity of the practice in general, following American Senator Hiram Johnson's dictum that the first casualty of war is truth. In the course of the book Knightly appeals to interviews and archival materials to make the claim that the photograph could not and does not depict the death of a Spanish soldier on the day and in the location that Capa claimed: Cerro Muriano, September 5, 1936. Whelan proceeds through various bits of evidence to demonstrate that there is a basis for the photo's authenticity, both as document of a specific battle and of a specific death.

Whelan's account begins with an examination of the photo essay that originally appeared in *Vu* in France in 1936. In that edition, there were two photos of falling soldiers. Whelan argues against the idea that they are repeated shots of the same man falling in the same spot, which would lend credence to the claim that Capa staged the falls for dramatic effect. He points to details visible in the uniforms of the two men, focusing on the straps that hold their ammunition cartridges, to argue that they are distinct individuals. The veracity of the second photo of a falling soldier is never raised, yet while that image faded into obscurity, the widely published shot, the only one that later appeared in *Life*, continued to generate controversy for decades.

Next, citing Spanish archival and historical sources uncovered by British journalist Rita Grovsner, Whelan investigates the possibility that the identity of the soldier in the famous photo was one Federico Borrell Garcia. Garcia was a member of the Alcoy infantry brigade consisting of about fifty men who fought, among other places, at Cerro Muriano in and around September 1936. Federico Borrell Garcia is listed among those killed in battle on the Cordoban front, which included Cerro Muriano. Whelan compares family portraits of Garcia with photos Capa presumably took earlier on the day he died of the soldiers posing in a

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group raising their rifles for the camera. Relatives in Spain identify him as the same man.

Having argued for the identity of the soldier and the probability of the date and location of the photo, Whelan then turns to forensic analysis of the image itself in order to establish the fact of death. Consulting with Captain Robert L. Franks, chief homicide detective with the Memphis Police Department, he asks what clues might reveal the nature of the man's fall. Franks testified to Whelan that the image in question clearly shows the moment of death. He states that the man was flat-footed, drawing the inference that he was in the previous moment not advancing with his rifle, but standing, perhaps posing, and was caught by surprise in the fall. Rather than take this as evidence of a posed fake, Whelan appeals to an account reportedly made by Capa himself about the conditions under which the photo was made. Robert Capa apparently spoke very little about that image and that day during his life, but the accounts that he gave that were recorded are vague and often conflicting. A 1930s *Life* photographer named Hansel Mieth wrote a letter to Whelan in March 1982 stating that Capa told her about it. Capa was reportedly very upset about the circumstances of the day, telling Mieth, "They were fooling around. We were all fooling around. We felt good. There was no shooting." Whelan immediately adds in his own voice, "Then suddenly, without warning, they were fired upon. Capa implied that he felt at least in part responsible for the death of the man in *The Falling Soldier*" (Whelan 2002, 55). The scenario that Whelan is suggesting is that Capa was indeed posing the soldiers, asking them to stand in formation, to feign an attack, to stand tall and steady, and thus flat-footed, for the camera. There was no action, so he drummed up some pictures as best he could. Perhaps he even asked the second falling man in the *Vu* essay to take a dive. But, crucially, this "fooling around" was tragically interrupted by fascist sniper fire and Borrell Garcia, exposed and vulnerable as Capa prepared to take his portrait from a low angle in a trench, was killed instantly, precisely as Capa pressed the shutter. So the story goes.

How might we know if the man is feigning a fall or dead on the spot? Whelan cites detective Franks's forensic evaluation of the photograph. "The most telling element, in Franks's reading, is the soldier's left hand, held below his left thigh. Franks wrote (and elaborated to me in conversation) that the fact that the fingers are somewhat curled toward the palm clearly indicates that the man's muscles have gone limp and that he is already dead. Hardly anyone faking death would ever know that such a hand position was necessary in order to make the photograph realistic. It would be nearly impossible for any conscious person to

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resist the reflex impulse to brace his fall by flexing his hand strongly backward at the wrist and extending his fingers out straight" (Whelan 2002, 54).

The sum of the evidence points for Whelan to the ultimate veracity of the image in particular, and by implicit extension to the ethical commitments of photojournalism represented by the tradition of Capa in general. Yet the "proof" he offers raises many questions. What is so interesting about the narrative that emerges is that accusations of staging *and* defenses of authenticity both have a foothold in reality. Capa was staging shots that day, but by accident just not this one. By drawing on various indexical cues, from bandoliers, to long shadows, to the character of the angle of the hill and its grassy cover, to the identification of the face of the soldier and the position of his hand and the laxity of his grip, Whelan situates the image as an exceptional truth. The fact of the controversy, and the compulsion of champions of Capa such as Whelan and other allies from within the profession of photojournalism and those such as Robert Capa's brother Cornell Capa, responsible for the maintenance of his legacy, speaks to the passion with which they feel they must hold onto the fidelity of photographic documents. Yet whether one claims the *The Falling Soldier* is false or true, both positions are buttressed by the default orientation to news (and other) photos as propositional. Either way, and indeed for most people in only two directions, the image makes a truth claim that is present for evaluation. The indexical impression of light on silver halide crystals in Capa's camera in 1936 yields a chain of increasingly complex indexical abstractions that may be rallied in the service of interrogating the quality of the image's propositionality without ever pausing to question it.

From Film to Digital

In February 2015, the *New York Times* reported that 20 percent of finalists in the World Press photo competition had been disqualified for unethical image manipulation. Claims of "overtly constructed imagery" mark a series of changes in photography. They point to divides—journalism versus art, film versus digital, professional versus poseur, pre- versus postexposure—that are organized by the relation between sign and referent, and by worry over how and if photographs can make truthful propositions.

"The Integrity of the Image," a report commissioned in 2014 by the World Press Photo Organization (WPPO), concluded: "Once we appreciate that computational photography is based on the collection of data, and that there is no original image, we have moved beyond the idea of reference between image and reality to such an extent that the idea of objectivity is no longer tenable" (Camp-

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bell 2014). The report that reached this conclusion was commissioned to investigate the extent and consequences of digital manipulation. It was spurned by cases in the photojournalism industry such as that of Narciso Contreras, a former Associated Press (AP) photographer who was discovered in 2014 to have digitally manipulated an image by removing a video camera belonging to a colleague from the foreground of an action shot from the war in Syria in 2013 (fig. 2).

From the AP website: "Contreras was one of a team of photographers working for the AP who shared in a Pulitzer last year for images of the Syrian war. . . . The alteration breached AP's requirements for truth and accuracy even though it involved a corner of the image with little news importance, Lyon said."[1] Consider that the first line of AP's photojournalistic code of ethics states baldly that "AP photos never lie."

Contreras's offense recalls the long-standing practice in photography of editing out elements that interfere with the separation of observer and observed. The video camera bespeaks the presence of the press in too direct a way, and its removal heightens the viewer's impression of an exclusive window onto an otherwise unobserved scene. Consider the classic example of manipulation involving Edward Curtis, famed romantic and primitivist photographer of the Native American West in the late 1800s and early 1900s. Curtis, besides posing portraits and dressing subjects to look more native, here removed a clock—an unwelcome marker of modernity—from the image titled *In a Piegan Lodge* (fig. 3).

Paul Hansen, the 2013 winner of the World Press photo of the year, was accused and subsequently exonerated from overmanipulation for this top-prize-winning image made in Gaza. From a report on the controversy in the Australian press:

> The story in extremetech.com said that Hansen "took a series of photos—and then later, realizing that his most dramatically situated photo was too dark and shadowy, decided to splice a bunch of images together and apply a liberal amount of dodging (brightening) to the shadowy regions." But Hansen said he had done nothing of the sort. Here's what he told us yesterday: "In the post-process toning and balancing of the uneven light in the alleyway, I developed the raw file with different density to use the natural light instead of dodging and burning. In effect to recreate

1. See http://www.ap.org/Content/AP-In-The-News/2014/AP-severs-ties-with-photographer-who-altered-work.

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Figure 2. Image manipulation by Narciso Contreras (Associated Press photo)

what the eye sees and get a larger dynamic range." To put it simply, it's the same file—developed over itself—the same thing you did with negatives when you scanned them.[2]

2. See http://www.news.com.au/technology/photographer-says-his-2013-world-press-photo-of-the-year-is-not-a-fake/story-e6frfro0-1226642304141.

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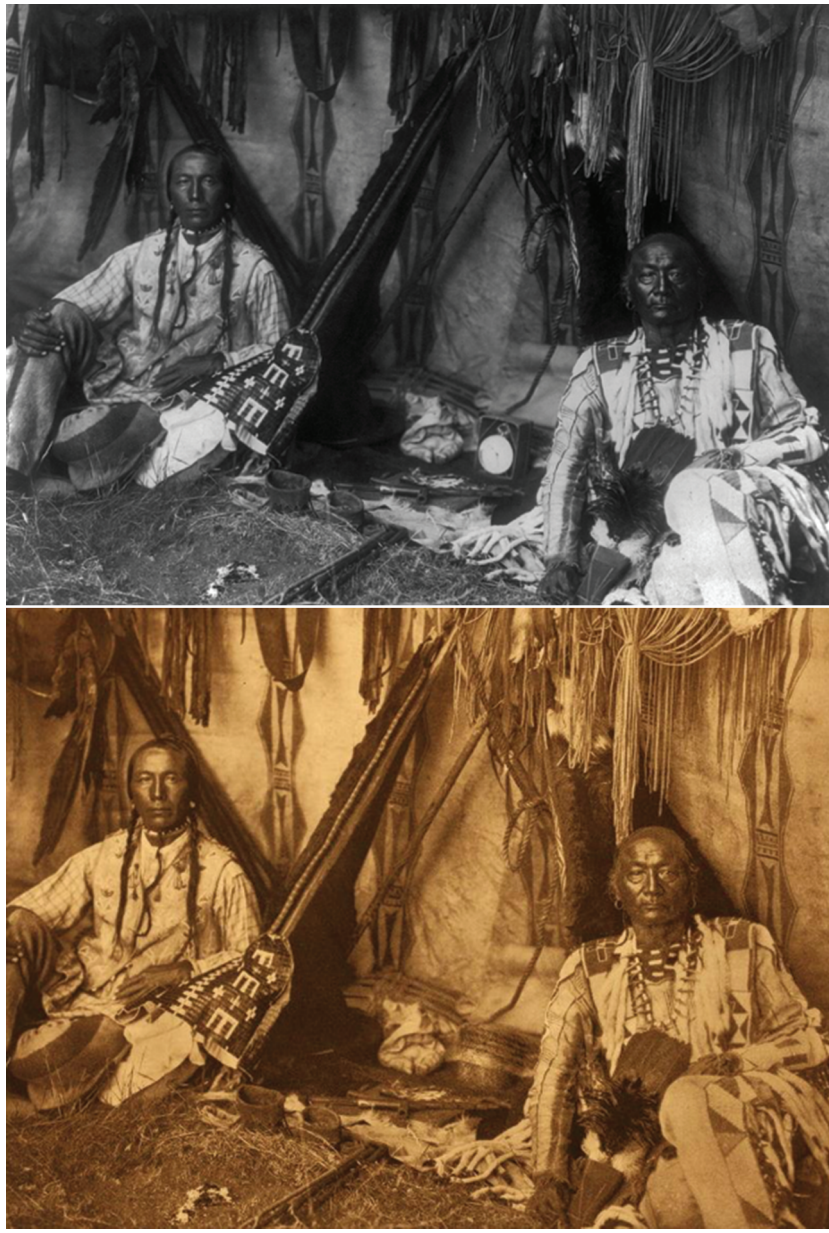


Figure 3. Image manipulation by Edward Curtis

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Back to the WPPO report on "The Integrity of the Image," many editors and photographers agreed worldwide that manipulation in digital postprocessing that mimicked what could have been traditionally accomplished in the darkroom through, for example, exposure time and filtration to affect light and tone is acceptable. Manipulation that radically alters composition or otherwise violates the emotional truthfulness of an image is unacceptable. One thing that is agreed upon in such conversations is that staging the scene of a photo is unethical. The National Press Photographers Association Code of Ethics is clear on this when it states, in point 5: "While photographing subjects do not intentionally contribute to, alter, or seek to alter or influence events."

The broader conditions of representation in digital or computational photography are the subject of *After Photography* by Fred Ritchin. The author has a background spanning working photojournalism, in part as picture editor at the *New York Times Magazine*, and in academia in faculty positions as professor of photography at NYU and later as dean of the school at the International Center for Photography. This mixed background is relevant because Ritchin uses examples drawn from his professional editorial experience to forward his intellectual arguments about the changing nature of the image in contemporary society. Ritchin comments on the move from film to digital: "When, as a college freshman, I had first watched a piece of exposed paper in a chemical bath mysteriously turn into a photograph, the encounter seemed magical, a kind of alchemy. Now, in the nascent digital era, the photograph was already extant and the magic was in modifying it" (Ritchin 2009, 30).

A related point is made by art historian Michael Fried (2008) in his discussion of art photographer Jeff Wall's essay "Photography and Liquid Intelligence," for whom photography is essentially a wet process, but one that is complemented, not without tension, by dryness. The role of water in traditional photography is apparent in film processing, where baths of chemicals and fresh water rinses are paramount, even if water must be kept out of the camera mechanism. By contrast, digital processes of image production and modification are entirely dry. Wall's own photographic practice is known for his hybrid process combining film shooting and development with subsequent digital manipulation in the computer. Consider Wall's *Dead Troops Talk*, a masterpiece that commanded a record-setting $3.6 million at auction at Christie's in 2012.

It is a large-scale film and digital montage of images of actors in a studio in Vancouver depicted as if they were Russian soldiers in Afghanistan risen from the dead enjoying a moment of postmortem repose. The image is hyperreal(is-

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tic), yet a feat of imagining the visually impossible at the same time. It is also a commentary on the perceived veracity of documentary and especially war photography that motivated the debate about Capa's *Falling Soldier*.

Returning to the qualia of wet and dry, Wall says that the move to digital image capture and processing may yield "a new displacement of water in photography. It will disappear from the immediate production-process, vanishing to the more distant horizon of the generation of electricity, and in that movement, the historical consciousness of the medium is altered. This expansion of the dry part of photography I see metaphorically as a kind of hubris of the orthodox technical intelligence which, secured behind a barrier of perfectly engineered glass, surveys natural form in its famously cool manner" (Wall 1989, cited in Fried 2008).

At stake here is a bundle of moving qualia, from the wetness and optical imperfection of older lens and film technologies, to a more finely optically attuned clarity linked to dryness. The qualia of the media shift as techne displaces the wet and water away from film developing to hydroelectric power plants that charge digital cameras and computers. The shift in qualia results in part from different modes of semiotic mediation, from directness in water baths to indirectness of water as power source parallels the shift from perceived immediacy of the image in silver halide crystals on film to a perceived mediation of digitally generated pixels in computational photography. Improved optical clarity notwithstanding, the move is basically seen to be in the direction of more dense mediation.

With digital generation of images, then, qualia can be generated that not only cover mediation in the service of realism, but furthermore qualia can be generated that suggest mediation, again in the service of realism. Consider computer-generated imagery (cgi) animated movies such as *The Lego Movie* (fig. 4). After having watched it a few times with my daughter, I realized that many scenes use specific elements of lighting for dramatic effect. In fact, this technique is pervasive in computer-generated films and in video games as well (personal communication). As in this scene, when the heroine Wyldstyle is introduced and the hero Emmet falls in love with her at first sight. As she turns to face him, Wyldstyle's face is illuminated by the low angle of the "sun," and flaring across the frame appears as circles of light that are—or would be if there were any lenses involved in the production of these images—caused by reflections within the glass optics and that take the heptagonal shape of the bladed diaphragm that sits inside a conventional lens.

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Figure 4. Wildstyle and lens flare in *The Lego Movie*

Now why would cgi artists working entirely on the computer add such artifacts, the very artifacts that many photographers seek to eliminate in postprocessing? The cgi medium borrows the flare effect, I suggest, because it has become so habitual a qualia of seeing film and films that its inclusion heightens the sense that viewers are watching a scene that was in turn seen through a lens by a cameraman. The inclusion of the evidence of mediation increases the realism and thus the propositional veracity of the image because it makes it look photographic rather than computer-graphic. We viewers are so habituated to filmic, which is to say glass-lens mediated, depiction that cgi filmmakers can help us to believe what we see as real by inserting lens effects that, when noticed at all, are seen as qualia of realism.

On the skeptical view of modified indexicality that comes with the move from film to digital photography Ritchin states, citing Susan Sontag: "No longer was it the slow emergence of the 'trace' or 'footprint' that was 'directly stenciled off the real,' as Sontag had put it, which was captivating, but the manipulation of the images themselves" (Ritchin 2009, 30). Furthermore, there is a double loss of trust in fidelity that accompanies this move, especially in relation to documentary photos. As photography becomes less straightforwardly referentially indexical it runs the risk of becoming more rhetorical, more socially indexical. When it no longer points to the bare facts of reality shown in the image, it now increasingly points back to the manipulative schemes of those photographers, editors, and media moguls who show us images. Those motives may have always been there, but their status as indexical objects is now foregrounded. "If documentary photographs cannot be trusted at least as a quotation of appearances, then photography will have lost its currency as a useful if highly im-

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perfect societal arbiter of occurrences, including the accidental and the spontaneous, and (*will*) have become a mere symbol of spin" (Ritchin 2009, 31). This suggests that a loss of faith in the truthfulness of the image that follows the decline in the supposed direct indexicality of film will in turn give way to mistrust in the motives that image makers have. Photographic indexicality moves from the referential function to sophistry. Ritchin says that he no longer thinks of photographs as "referents" but as "desirents," his way of characterizing the shift.

Like other commentators on photography (see "The Integrity of the Image" quoted in this article [Campbell 2014]), Ritchin reminds us that longing for a time when photographs were transparently and only informational is a fiction. The consensus among those with experience in the business of news photography acknowledges the always pragmatic and context-bound nature of both the production and interpretation of images. Ritchin again: "A documentary photograph has always required contextualization to evoke its intended meanings. This usually comes from a caption, a voiceover, a headline, an accompanying article, as well as the context derived from where it is shown or published. The same person crying in a photo could be suffering from dust in an eye or from hearing terrible news. The digital, unlike the analog, easily allows the photograph's ambiguity to be respected—the first reading of the visual—before it is concretized, while providing hidden amplifying information to confirm and provoke other ideas" (Ritchin 2009, 72).

He adds that what this means is that now, more than ever, we realize how photographs are "multivocal," formed in the "dialectics of history and culture" such that "the photograph can no longer be read according to the simplistic notion that 'the camera never lies,' that there is only one concretized reality" (Ritchin 2009, 71). The argument here seems to double back on reference, now to multiple realities. That is to say, novel photographic techniques generate familiar enough but hyper-mediating qualia, many potentially perceived yet unnoticed—think of Wall's suggestion that dryness is a character of the digital image-making process. What this means for the critic is that the ways photographic images are brought to the public eye dialogue with the multiple ways that publics now license themselves to implicitly and explicitly read what we may call the qualia of these documents. Context, in the sense of intertextuality, as well as captioning, print or online venue, hypertext, and so on, matters. Yet the multivocality of the documentary photograph yields mainly a multiplicity of referents. What has changed is not the tendency for beholders to see propositionality in photos; if anything, beholders now see more, as a surplus of potential

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propositions are asserted. And, furthermore, they are linked to an inferred plethora of realities.

Dicentization and Propositionality

Photographic realism relates two different meanings of realism one to the other. The first is metaphysical realism, which in its strong form is an ontological commitment to the existence of semiosis independent of the human. The second is aesthetic realism, which is both a theory of representation and a mode of interpretation that often collapses iconicity (fildelity of form) into indexicality in terms of direct causation. The realisms of the philosopher and the artist are intertwined. Dicentization (Ball 2014), a process whereby signs yield what Peirce called dicisigns or dicent interpretants, is a key factor in the production of interpretations of photography as truthful depiction and in arguments against this interpretation. Seeing photos as nonlinguistic propositions requires us to expand the definition of what a proposition can be beyond the linguistic to the visual. Peirce claims that propositions (dicisigns in Peirce's terminology) indeed "do not depend upon human language nor upon human consciousness or intentionality, contrary to most standard assumptions" (Stjernfelt 2014, 1).

A proposition in Peirce's definition is "a sign which makes a truth claim due to its double involvement—denotative and descriptive—with the same object" (Stjernfelt 2014, 1). For Stjernfelt, this means that propositions can take many forms, including images. Peirce's "liberation of propositions from the iron cage of human languages in the Frege-Russell tradition allows us to begin to grasp the logic and cognitive abilities of other animals as well as those of human beings freely mixing language with images, pictures, diagrams, gesture in order to understand and express Dicisigns" (Stjernfelt 2014, 104).

Recall that Peirce's definition of the proposition was primarily indexical and iconic; the subject term is an index pointing to its referent without providing much information about it, while the predicate is an icon, an image in the sense that it provides some information about the referent without pointing to it. The combination of subject and predicate yields a proposition with an internal syntax. Photos are indexically tied to their referents; they point to subjects and they have a predicate-like component in that they characterize some qualities of the subject. But the referring and characterization, the indexical and iconic components, are smeared together in photographs; there is no syntax. Yet for Peirce, images counted as propositions; in fact, his preferred logical notation eschewed linearity and the traditional syntax of logical notation, and he developed a primarily iconic nonlinear diagrammatic notation (his existential graphs) made

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of nested boxes and circles and connecting lines between terms. Propositions rendered as pictures may be insightfully described as moving from the status of an iconic predicate to its encompassment in an indexical sign, specifically, a dicisign or dicent sign. This is one modality of the process that I have described elsewhere as dicentization.

Furthermore, says Stjernfelt, "there seems to be a gradient from completely singular Dicent Sinsigns on the one end to fully Dicent symbols with general predicates, be they linguistic or diagrammatic or otherwise, on the other end" (Stjernfelt 2014, 95). For example, photographs used in a field guide to mushrooms "must be selected so as to display all typical features of the appearances of the mushroom species in question, thus embodying general qualities, even if actually depicting individual organisms. Retouching, 'photoshopping,' and related processing of photographs, of course, may aid in the production of photographs serving as more general predicates describing types" (Stjernfelt 2014, 95).

Martin Lefebvre describes the process of "how a given sign can pass from being a rheme to *becoming* a dicent," what I call dicentization, as "a movement Peirce likens to semiotic *growth*" (Lefebvre 2007, 11). He points out that "we should avoid seeing the dicent as the *essence* of photography" (2007, 13), precisely because photos have the potential for dicent, propositional interpretation, but are not always interpreted so. Images are used for different pragmatic purposes. I have shown here many examples of both the metapragmatic framing that is necessary for dicentization as well as the qualia that may contribute to a photo's perceived truthfulness. Of course the iconic aspects of the photographic image, the predicate, so to speak, also need to be interpretable as referring to something real in order for dicentization to occur. Lefebvre summarizes, "if every photograph is a potential dicent sign by virtue of its indexicality, it is also a potential rheme by virtue of the vagueness that haunts it. Therefore, its semiotic identity is relative to the way it is put to use concretely, which is a properly *pragmatic* idea if there ever was one" (Lefebvre 2007, 13).

My point is to show how the photographic process involves manipulation of qualia, and that worry over the truthfulness of any sinsign photograph as well as worry over the truthfulness of photography as a system of legisigns is worked out through the material qualia of photography. At stake is how to yield dicent interpretants—the process of dicentization—in order to read propositions (denotative and descriptive statements) about depicted objects through the indexical qualia of their depiction. It is the ideological tendency to interpret the photographic image specifically as a dicent sign, as a proposition, that pushes questions of the truth of its reference.

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Conclusion

Indexicality has traditionally been discussed in the literature on photography in much the same way folk ideologies understand photos as related to reality. Peirce too used the photograph as a prime example of spatiotemporal contiguity and causality, light impressing upon film. This essentially correct but simple notion of indexicality has for a long time fed a simple view of realism, and has yielded continual controversy over photographic images and their relationship to reality. I have suggested that by thinking about multiple ways that photographs are indexical—including the categories of qualia, dicentization, and propositionality—we can make better sense of multiple realisms that structure photographic practice from the making of images, to their interpretation, to their performative effects. Beyond multiplying types of indexicality and kinds of realisms, I appeal to the claim that the semiotics of the image or any other sign type since Peirce is fundamentally committed to some form of metaphysical realism, and that this has implications for aesthetic accounts of realism as well. That is to say that as semiotic analysis necessarily makes claims about reality, not merely representation, indeed in semiotic terms representation is reality. More specifically, semiotic analysis offers a way to investigate the existence of various strains of realisms in the domain of the photographic image, and it does so from a position that derives its interpretive authority from metaphysical realism at a higher order, based in Peirce's argument that generals, not merely particulars, are real.

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