Games as a New Predicate for Art: What can Arthur Danto's Theory Reveal about the Role of Games in Art?

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Abstract

The idea of a "predicate" is a way of understanding creative innovation introduced by Arthur Danto in his 1964 essay "The Artworld." This article is derived from a line of inquiry extending from this essay that explores this question: are games a new predicate for Art? This study is interested in articulating his theory and using it to elucidate how games might influence Art. It discovers and proves that games enrich the Artworld by introducing the predicate of intermingled reality.

Key Words: Artworld, Arthur Danto, innovation, predicate, art, games

1. Introduction

This article concerns itself with elucidating and then applying Arthur Danto's theory of innovation in Art as he described in his essay "The Artworld" (Danto, 1964) to discover what his theory can reveal about the role of games in Art. There has been one other such attempt that can be identified as a similar endeavor. "Chapter 6: Computer Games as Works of Art" in *Computer Games and New Media Cultures: A Handbook of Digital Games Studies* considers games as works of art, but ultimately concludes that "some computer games [can be works of art]… so long as [these games] can be shown to fulfill a certain function in a certain way" (Feige, 2012, p. 101). What my study has in common with this analysis is that both paths of inquiry posit that "the appliance of philosophical questions of definition and considerations concerning the philosophy of art can enrich the field of game studies"(p. 106). Feige uses Danto's theory *in general* to make the point that art is a constructed interpretation(p. 96), and then uses his theory in step one (1) of a three (3) step process to "clarify the concept of art"(p. 95). While this is a similar approach to the methodology authored in this article, my process is much more detailed and uses the specificity of Danto's 1964 theory as the basis on which to draw conclusions which enriches the field of Art as well as game studies.

I began with an investigation into the when and how Arthur Danto's work in studying the ontological status of art has been invoked in academic games research (e.g. Danto, 1964; 1983; 1998a; 1998b; 2009; 2013). In addition to the aforementioned work, only three incidents could be found. First, one article contends that there are objects to consider for acceptance in the Gameworld just as there are for the Artworld. "The deployment of both art and game […] is serving to identify a class of artifacts that merit praise […](e.g., Danto, 2013, in the case of art—game is dealt with in this article)" (Bateman, 2014, p. 2). A second academic expressed an interest in how games might gain recognition and admission into the artistic establishment. This author paraphrased Danto's ideas and paired them with George Dickie's: "The institutional theory of art would also seem to make room for video games. Put very crudely, the institutional theory asserts that an object becomes a work of art when accepted by the relevant community of artists and critics (Danto 1964 and Dickie 1974)"(Deen, 2011). A third example was found in a dissertation in the context that mentioned Danto's *Transfiguration of the Commonplace* when discussing the "difficulty in ascertaining the nature of a project based purely on the end-product" (Dena, 2009). While these items mention Danto, none delve in any more depth than that into this theory nor do they discover what could be gleaned from it and apply such discoveries to games.

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I then looked at *any* mention of Arthur Danto's research in game studies. One book on the Amiga as a gaming platform quotes Danto's research to substantiate that Andy Warhol used this particular computer to create his *Marilyn* series (Maher, Montfort, & Bogost, 2012, p. 93). In a study of Pippin Barr's "The Artist is Present" the researcher compares this game to Marina Abramovic's performance of the same name. Danto, and his idea that this silent performance is actually a kind of dialogue, is mentioned in this context (Wilson, 2013). Another study mentions Danto in positing that interpretation of an artwork is a puzzle to be solved (Meintema, 2012). A fourth example studies to story in games, "The narratologist's take on a story is hence retrospective (as is the narrator's and historian's perspective, because in order to be able to tell a story or to identify the beginning of a historical development, one has to know how it ended (Danto, 1985; Martin, 1986))" (Simons, 2007). Another mention, focused on legitimizing games as Art, cites Danto in a quote by Brian Moriarty(Karhulahti, 2012).

A look through the lens of contemporary aesthetics reveals two researchers who defend the status of games as Art. One such "argue[s] that by any major definition of art many modern video games should be considered art. … [he] offer[s] reasons for thinking that video games can be art according to historical, aesthetic, institutional, representational and expressive theories of art" (Smuts, 2005a). Another investigator, who proposes that "the development of videogames seems to constitute the growth of an entirely new artistic medium" (Tavinor, 2009a), expends great effort to define videogames (Tavinor, 2008), and understand them as mass Art (Tavinor, 2011). He defends videogames as Art also using a cluster theory of Art (Tavinor, 2009b, pp. 175-190) because, as he states, "One thing that became clear in the definition-of-art debate is that theorists of the arts were often guilty of picking out a property of art favored in their own time and claiming that property to be essential to the kind" (Tavinor, 2008). Again, none of these efforts include Danto's theories or any attempt to apply them to games in the context of the Artworld.

This article is an exploration of this question: are games a new predicate for Art? I have chosen this path as significant to pursue because I think, like one aesthetic philosopher, that, "Although there have also been several journalistic [and academic] attempts to declare video games [Art] outside the realm of art […] no one has *carefully sorted out* the issue [*inside* the realm of Art]" (Smuts, 2005b, my emphasis). While there have been several attempts at defending games as Art using an open concept of Art, the idea of a "predicate" as a way of understanding creative innovation has not been tried. Danto does *not* subscribe to an open concept of Art. Instead he gives boundaries in which to discover innovation. This study differentiates itself from the previously cited articles because it is interested in articulating a detailed and full understanding of his theory and using it to clarify how games might influence innovation in Art. It is important to note here that small "a" art is being used in this article to designate "low" art and the word is capitalized to designate "high" Art (e.g. Cohen, 1999; Fenner, 2005; Panofsky, 1997). This designation is important because past researchers have not examined games in such detail. This is evident in their implication that games are high Art by their theories and by the use of the lower case "a" when they refer to Art in their articles.

2. Organization of the Article

First, I explain "The Artworld" (Danto, 1964) to establish solid ground on which to base conclusions. To further elucidate Danto's Artworld, I make use of problem-solving and critical thinking schemas common in the field of Computer Science, manifested in the form of flowcharts and algorithms.

Second, I apply Danto's theory to discover how games might be a new predicate for the Artworld. In these sections of the paper I present the written artifacts and artworks of selected artists. A large part of these artifacts are found in non-scholarly sources and, when necessary, I have used these sources to elucidate the artist's intention. These sections of the paper follow one game academic's thought: "in [A]rt we […] have to configure in order to be able to interpret […]" (Eskelinen, 2001). The goal of this article is to reveal the nuances in Eskelinen's proposal, using Danto's understanding of Art and to expand on it.

Finally, I reach a conclusion as to the creative contribution that games bring to the Artworld. I assert the discovery that games bring a new predicate to Art.

3. Understanding Arthur Danto's Artworld

There are three (3) major ideas in "The Artworld." They are: (1) what a thing "is" depends on what the artist says it is; (2) Art does not exist without theory; and (3) innovation in Art is defining a new predicate, that is, a new something to do, or a new way to be.

These ideas are derived from his aesthetic inquiry of the rejection of the Socratic Imitation Theory of Art (IT) and the adoption of the Reality Theory of Art (RT), which happened at the birth of modernism. Specifically, Danto speaks of the Post-Impressionists: "the artists in question were to be understood not as unsuccessfully imitating real forms, but as successfully creating new ones…"(Danto, 1964, p. 573). This shift in theory allowed for a whole new approach to looking at and interpreting Art. Using the new theory (RT), a work of Art could be called a real object with an identity of its own and not just illusion or mimicry of other objects. This was a "victory in ontology" because "artworks re-entered the thick of things from [which]… (IT) had sought to evict them" (p. 574). The works that became eligible for inclusion into the Artworld at this point did not have to be illusory in nature, which opened the doors to non-western Art, Pop Art, expressionism, Conceptual Art, and so on.

3.1. Artistic Identification Explained

One of the ideas central to this theory (RT) is "artistic identification" (Danto, 1964, p. 577). First, he clarifies the boundaries of "is" by identifying what the "is" *is not*. "There is an *is* that figures prominently in statements concerning artworks which is not the *is* either of identity or predication; nor is it the *is* of existence, of identification, or some special *is* made up to serve a philosophic end (p. 576)." To understand the "is," think about this everyday scenario. A person goes to see a movie titled *Spiderman*. On the screen is a character dressed in a red and blue costume. It is common practice to say "that is Spiderman," even though it is not actually Spiderman. It is a moving image of an actor dressed in a costume on a screen and yet it "is" Spiderman. In the same way, I can point to a painting in a gallery and say, "That is St. Sebastian" even though it is really paint on a canvas. This unambiguous suspension of disbelief allows us to consider the work in the context and meaning of "is." Danto gives an example of two visually identical paintings to further clarify the importance of "artistic identification." Even though the two paintings are the same, the artists describe the work differently. The description given by the artists changes the ontology of the respective pieces (pp. para 577-578). In addition to defining the state of being of a work of Art, artistic identification also "determines how many elements the work is to contain (p. 578)." This is important because it is essential to understand the boundaries of a work of Art in order to experience it as the artist intended, without imposing elements into the work that the artist did not intend. A common example of this imposition would be for a viewer to try to identify or "pick out" the image of a face in an abstract expressionist work.

3.2. The Relationship of Art and Theory

This brings me to the second idea that Danto had in this essay, specifically, that Art does not exist without theory. This proposal has been controversial for the last fifty years, since its first utterance. For the sake of this dialogue, let's for a moment accept this notion that creation of artworks is dependent on aesthetic theory and the Art history that came before. Danto gives the example of Andy Warhol's *Brillo Boxes*. He makes the point of this dependence on theory; "it is the theory that takes it up to the world of [A]rt, and keeps it [the *Brillo Boxes*] from collapsing into the real object that it is (in a sense of *is* other than artistic identification)" (p. 580). Since Danto's essay was written after the creation of this piece, Warhol could not have been aware of this theory, and yet was intuitively following his exploration of the "every day" object/image as Art object in order to create this and other artworks (Danto, 2009, pp. xv, 32). Furthermore, Warhol's work was created after Duchamp's readymade objects and his sophistication with pushing this idea forward to the point of comparison to Duchamp's shows an awareness of this noteworthy work (Danto, 2009, p. 56).

The experience of creating Art, alternatively, could be construed as a hero's journey. The creator must leave theory in order to discover, and then ultimately, the artwork will return to theory. Additional evidence of the dependence of Art on theory is found when an object is put into the world for consideration as Art. There is a pre-requisite for the audience. To "see something as [A]rt requires something that the eye cannot decry—an atmosphere of artistic theory, a knowledge of the history of [A]rt: an [A]rtworld"(Danto, 1964, p. 580). Because of this burden of knowledge, in addition to "artistic identification," the shift of aesthetic theory from imitation (IT) to real (RT) created a new role for the artist, that of the teacher. In order to be understood, artists have to teach the world and the Artworld about his or her work when exhibiting. It is common practice for artists to provide an artist statement, process notes, or lecture about the work, not only to artistically identify the work, but also to teach about which aesthetic theory or theories informed the work and how it is related to objects that influenced the creation of the work from Art history. This is further evidence of the insightfulness of Danto's theory about theories and gives a glimpse into the circuitous life of artists.

An artist begins creative practice by setting aside his or her knowledge of Art theory and history, creates the work, and then resurrects theory and history at the point at which the work leaves the studio. Without the explanation, the world and the Artworld would not know what the work "is." According to Danto, the artist is "logically dependent" (p. 579) on theory and history in this way.

3.3. Innovation in Art Explained

The third point that Danto makes in his essay is that innovation in Art is defining a new predicate; that is a new something to do, or a new way to be. He reaches this thought by first establishing an understanding of "opposites." He begins, "I shall now think of pairs of predicates related to each other related to each other as 'opposites,' … Contradictory predicates are not opposites, since one of each of them must apply to every object in the universe, and neither of a pair of opposites need apply to some objects in the universe" (p. 582).

3.3.1. Comprehending Contradictory Predicates

Since Danto is using a contradictory predicate to explain opposites, I feel the need to clarify what Danto is saying and to turn to the field of psychology. The research found in this field offers a simpler example: "Consider a sentence such as *The door is not open*. This sentence implicitly refers to two states of affairs: The state of affairs that is being negated (the door is open), and the state of affairs that is actually the case (the door is not open)" (Kaup, Lu¨dtke, & Zwaan, 2006, p. 1033). When this example is applied to Danto's explanation of opposites, the conditions and understanding the subtle nuance between opposites and contradictory predicates is clarified. (Figure 1)

Figure 1: How to tell the difference between “Contradictory Predicates” and “Opposites”
The processing steps of comprehending contradictory predicates follow this algorithm (Kaup, Lu¨dtke, & Zwaan, 2006, p. para 1034)

1. Become aware of contradictory predicate;
2. Consider represented negated state of affairs;
3. Mentally reject of the represented negated state of affairs;
4. Turn to the implications of the contradictory predicate with respect to the actual state of affairs;
5. Modify understanding where warranted

3.3.2 Why use Contradictory Predicates?

Understanding the mental processing involved in contradictory predicates begs the question: why would anyone make use of this strategy to communicate? It would seem that this approach is antithetical to the goal of conveying an idea. Barbara Kaup and her team offer this summary of research that can be taken as an explanation of this phenomenon.

> Negative sentences are usually used to communicate deviations from expectancies ((Givon, 1978; Horn, 1989; Wason, 1965); see also (Glenberg, et al., 1999), but see (Giora, 2006)). Thus, negative sentences not only convey information regarding the actual state of affairs but also information regarding expectancies. When processing a negative sentence, the comprehender [sic] can therefore be expected to represent these expectancies, or in other words, the negated state of affairs. (p. 1034).

Simply put, using contradictory predicates allows the communicator to speak to missing pieces and to represent *what is not there*, or, as these researchers put it, a "deviation from the expected" in the context of *what is there*, or, as they state, "the fact that this state of affairs does not hold for the world under consideration." This is a very important first step in grasping innovation in the Artworld because introducing *what is not there*, or innovation, can only be understood in context of *what is there*.

3.3.3. Recognizing the "Kind"

Once an understanding of contradictory predicates is achieved, the second step in innovation or defining a new predicate (a new something to do, or a new way to be), is to understand objects and how to recognize what type or "kind" they are, according to Danto. It is important to be able to recognize the required type of object because, if it is not, then it is possible that "neither of a pair of opposites *sensibly* applies …" (Danto, 1964, p. 582). He explains a process by which we can recognize objects of a certain kind that is more easily understood in the form of a flowchart (pp. 582-583). (Figure 2) Additionally, the process can be described algorithmically as follows:

1. Identify a namable kind [K].
2. Ask: does the [K] have a Contradictory Predicate Pair [CPP]?
3. If yes, then save [CPP] to list [K].
4. Loop back to #2 until all [CPP] have been identified.
5. Ask: does list [K] have at least one [CPP]?
    a. If yes, then move on to 6.
    b. If no, then END investigation because there is no [K] discovered.
6. Identify a namable object [O].
7. Ask: does the [O] have a Contradictory Predicate Pair [CPP]?
    a. If yes, then save [CPP] to list [O].
    b. If no, then go to #9.
8. Loop back to #7 until all [CPP] have been identified.
9. Ask: does list [O] have at least one [CPP]?
    a. If yes, then go to 11.
    b. If no, then END investigation because there is no [O] discovered.
10. Compare [K] and [O] lists.
11. Ask: does at least one [CPP] on each list match?
    a. If yes, then Object [O] *is* of Kind [K].
    b. If no, then Object [O] *is not* of Kind [K].

Figure 2: How to tell if Object [O] is of certain Kind [K]

3.3.4. Discovering the Validity of a Trait

After Danto establishes how to tell if an object is of a certain kind he applies it to Art like this:

> "am now interested in the K-relevant predicates for the class *K* of artworks. And let *F* and *non-F* be an opposite pair of such predicates. Now it might happen that, throughout an entire period of time, every artwork is *non-F*, it might never occur to anyone that non-F is an artistically relevant predicate. The *non-F-ness* of artworks goes unmarked. By contrast, all works up to a given time might be *G*, it never occurring to anyone until that time that something might both be an artwork and *non-G* (p. 583).

He goes on to explain how a feature that was previously accepted as a *defining trait* can be identified as not an essential attribute. Again, I found it best to flowchart his thoughts to understand them. In the first flowchart, I visualize the general thought process by which are the traits considered *defining traits* can be evaluated. The second flowchart is a picture of Danto's example, specifically using representational depiction. (Figure 3)

Figure 3: Process for discovering the validity of a trait and a specific example, as described by Arthur Danto

Danto further illustrates his view by comparing representation and expressionism. The flowcharts in this visualization show that the affirmative path changed after the introduction of Modernism. (Figure 4) When I take his theory and consider expressionism as a defining trait, it only remains so for a split second, as representation is as valid and therefore *defining* a trait as expressionism. The validity of a trait depends on the artwork being considered. In this process as new predicates are discovered, the old predicates do not cease to exist.

Figure 4: Comparison of examples F and G, as described by Arthur Danto

3.3.5. Arthur Danto's matrix

The new predicates are added to the previous list and "increase the number of available styles at the rate of *2n*"(p. 583). As is made clear by Danto's matrix (Figure 5), the new predicates that are discovered as a choice are of equal value to the old ones. He states: "Exactly as many artistically relevant predicates stand true [of the old predicates] as stand true of any member of the Artworld, …one row of the matrix is as legitimate as the other" (p. 584).

Figure 5: Arthur Danto's matrix

Using his description of this "retroactive enrichment" (p. 583), I can extend the matrix to include new possibilities introduced by Pop Art and Dada (Figure 6). Note that in both of these matrices the purists never inhabit the bottom row that is occupied with minuses (-) and that as new predicates are introduced the plus (+) sign is reintroduced.

The matrix is not chronological but is arranged by how pure the artwork is in relation to the predicates. Danto concludes his thoughts about innovation in Art by positing, "An artistic breakthrough consists, I suppose, in adding the possibility of a column to the matrix. … Whatever the artistically relevant predicate [is]…, the rest of the Artworld becomes that much richer in having the opposite predicate available and applicable to its members"(p. 584).

Figure 6: Arthur Danto's matrix, Extended to include Pop Art and Dada

3.4 Steps toward Applying Arthur Danto's Theory

In order to simplify and apply Danto's theory I revisit this thought: "in [A]rt we … have to configure in order to be able to interpret […]" (Eskelinen, 2001). From Danto we have learned this way to configure in order to interpret Art.

1. Become aware of the "artist identification" of the piece.
2. Determine if object [O] is of kind Art.
   The conditions for a work of Art are: (1) it "embodies meaning" (Danto, 2013, p. 50); (2) the physicality of the piece and the meaning are "indissolubly comingled" (p. 92); the piece "creates its own truth" (p. 112); and the work has "spirit" and harnesses the "creative power of the artist"(p. 117).
3. Look for the contradictory predicate pair [CPP].
4. If the piece has at least one CPP, then
5. Decide what the predicate [P] is.
6. Is [P] essential to the identity of Art?
7. If yes, then [P] is a defining trait of Art.

4. Games as New Predicate for Art

First, the artists who were chosen for this study were so selected because their work has already been integrated into the established Artworld by inclusion in museums and galleries. Using artists that are integrated professionals in the Artworld also allows me to pass over the second step of the algorithm, so as to shorten a lengthy case, as these pieces have already been examined and determined to be works of Art. Selections of these exhibitions have been listed below as evidence.

Invader has shown his work in the (1) Daejon Museum of Art Daejeon, South Corea; (2) Museum of Contemporary Art in San Deigo, Ca, USA; (3) Musée Ingres, Montauban, France; (4) Galerie Magda Danysz, Paris; (5) Galerie Patricia Dorfmann, Paris; and the (5) Baltic Center for Contemporary Art, Gateshead, UK (Archangel, 2000-2014, p. /post/exhibitions/).

Jon Haddock has exhibited his work at (1) Whitney Museum of American Art, NYC USA; (2) Laguna Art Museum, Laguna Beach, FL USA; (3) Civic Art Galley of Monza, Italy; (4) Pace Wildenstein, New York NY USA; (5) Phoenix Art Museum, Phoenix, AZ USA (Haddock, Projects, 2000-2014, p. /jrh/about.html).

Cory Archangel has shown his work in the (1) Herning Museum of Contemporary Art, Herning Denmark; (2) New Museum NYC USA; (3) Warhol Museum, Pittsburgh, PA USA; and the (4) Carnegie Museum of Art, Pittsburgh, PA USA (Archangel, 2000-2014, p. /shows/).

Feng Mengbo's work has been exhibited and collected at the (1) Museum of Modern Art, NYC USA (Mengbo, 2008); and the (2) LACMA Los Angeles, CA USA (Yu, 2014). He has also shown at the (3) Shanghi Gallery of Art, Shanghi China; and (4) Pearl Lam Galleries in Shanghai, China. (Artsy, 2014a, p. /shows)

Second, these artists were also chosen because, in addition to having reached the status of an integrated professional in the Artworld, their work is representative of currently accepted approaches to using games in the creation of Art. I elaborate on these approaches in Step 1 of the following algorithm.

4.1. Step 1: Artist Identification

Let's consider for a moment the unambiguous suspension of disbelief that allows us to consider the work in the context and meaning of "is." There are currently four (4) possibilities for what an object "is" when considering games as a new predicate for Art (Clarke & Mitchell, 2007). It could (1) appropriate game iconography; (2) adopt the graphic style of a game; (3) subvert game mechanics; or (4) appropriate the form of a game.

The first and fourth examples are epitomized by the work of Invader. He is a "no-brow"(Ryynänen, 2005) artist who installs his tiled space invader characters (Space Invaders 1978) all over the world (Invader, 1998-2014, p. /world). When asked why he used the space invader image, he states on his website: "they are the perfect icons of our time, a time where digital technologies are the heartbeat of our world" (p. /about). The work takes the form of a game with the goal being "[to liberate] Art from its usual alienators that museums or institutions can be. But it is also about freeing the Space Invaders from their video games TV screens and to bring them in our physical world" (p. /about). The installation of the mosaics is meant to "invade" the real world and connect the physical and digital worlds. He also has a smart phone application that is a game to "collect" his installations by photographing them and then earning a score (p. /flashinvaders; Invader, 2014). Both of these are instances of the fourth option, to appropriate the form of a game.

The work of Jon Haddock is a case of adopting the graphic style of a game with his series, *Screenshots* (Haddock, Projects, 2000-2014, p. /screenshots). This series of work adopts the graphic style of *The Sims*(Maxis, 2000). He is struggling with the role of the media in his work. "The news promotes violence far more effectively than videogames," says Haddock. "On one level, *Screenshots* is an attempt to come to terms with the experience of violence that has made me who I am" (Hall, 2001). This interest in the media as an overarching adversary is evidenced further by this quote posted on his employee profile for Phoenix College: "'Media: Never ever consume it. Always create it. It's important to push out. Not take in. It's a matter of survival. There are two kinds of people in this world: artists and marks.' - - Terrence McKenna (as quoted by R. Crumb, 2005)" (Phoenix College, 2014). His appropriation is not only of game but also comic and toy graphic styles and is used as a visual metaphor to comment on the familiarity with aggression in our society (Haddock, Projects, 2000-2014, pp. /vmp, /ata-andrew_meyer). Haddock's influences are graphic novel cartoonists: Jim Woodring, Joe Sacco, R. Sikoryak, Jennifer Diane Reitz, and Matthew Allison, who all express the same deeply personal interest in familiarity with real-life violence, both political and private, in comic form (Parker, 2011, p. para).

Cory Archangel uses subversion of game mechanics in his pieces *Super Mario Clouds* (Archangel, 2000-2014, pp. /things-i-made/supermarioclouds) and *Super Slow Tetris* (pp. /things-i-made/2004-003-super-slow-tetris). In both of these games, he has hacked the original cartridge and changed the gameplay in order to subvert the mechanics. (Pajitnov, 1984; Nintendo EAD, 1985) In *Super Mario Clouds* he removed all of the graphics other than the clouds in the game. While the game is still playable if the player is familiar with the original game, it becomes a frustrating proposition because the game is being played by sound. Likewise, *Super Slow Tetris* is equally trying, "It takes about 8 hours for the blocks to fall in one complete game. At the same time, it is still possible to move them left and right, it just takes minutes for them to drop one pixel down on the screen. It's totally maddening!"(pp. /things-i-made/2004-003-super-slow-tetris)

The appropriation of the form of a game is found in the piece, titled *Long March: Restart* by Feng Mengbo(Mengbo, 2008). He uses not only the images but also the game play of the video games *Super Mario Bros* (Nintendo EAD 1985) and *Street Fighter* (Capcom, 1987). This piece has a classic 8-bit gaming soundtrack of Chinese revolutionary songs. He says of his work, "My [A]rt is concerned with the commonplace lives of ordinary people. I'm fascinated[sic] by the fact that despite all of its travails humankind battles for survival, struggles to maintain its basic dignity, ever hopeful and often humourous[sic]"(The Japan Foundation, 1995; iniva.org, 2005). He also states in these sources that he would "rather be considered a game artist than a Political Pop artist...This doesn't mean that I don't care about history, simply that I can't be responsible for it"(The Japan Foundation, 1995; iniva.org, 2005) This work is a political and sociological comment on the past and present circumstances in China.

4.2. Step 2: Determine if Object [O] is of Kind, Art

I have skipped this portion for reasons mentioned earlier in this article.

4.3. Step 3: Look for the Contradictory Predicate Pair [CPP]

The CPP found in the appropriation game iconography follows the same contradictory predicate pair as Pop Art. Like the aforementioned *Brillo Boxes,* Invader's *Space Invaders* brings the "[the space invader characters(Taito, 1978)] up to the world of [A]rt [as mosaics], and keeps [them] from collapsing into the real object that it is [i.e.digital characters]" by bringing the digital reality into the physical reality. Following the flowchart (Figure 1) the statement to consider in this specific case is: space invaders are real. The state of affairs that is being negated is: space invaders are real. The state of affairs that is actually the case is space invaders are not real.

When I check the state that is being negated I ask: is it possible that space invaders *can be* real? As evidenced by Invader's mosaic work, I can answer this question affirmatively. When I check the state that is actually the case I ask: is it possible that *some* space invaders are *not* real? I can answer this question in the affirmative as well. Yes, it is possible that some space invaders are not real. Since both of these states of affairs are met, as did Pop Art before it did, I can deduce that this is a CPP and not a case of opposites.

Jon Haddock adopts the graphic style of a game in his series *Screenshots* by setting up real life violent scenarios in the SIMS (Maxis, 2000) game and "photographing" them via a screenshot. The statement to consider is: real violence is a game. The state of affairs that is being negated is: real violence is a game. The state of affairs that is actually the case is: real violence is a *not* game. When I check the state I ask: is it possible that real violence is a game? The answer is yes, because it is possible that real violence *can be* a game. Haddock gives us an answer in his piece about Elian Gonzalez (Haddock, 2001) when he chooses to depict the moment that the media broadcasted when he was taken from his relatives in America to be returned to his father in Cuba. The game continues in the American media (Latson, 2014) where Elian, who is now 20 years old, is still being treated as a political pawn in this game. When I check the state of what is actually the case, I ask: is it possible that *some* real violence is *not* a game? Again the answer is yes. Since both states of affairs are met, I can safely conclude that this is a CPP and not a case of opposites.

The third option, to subvert game mechanics, is found in Cory Archangel's work. The statement to consider is: games are not to be played fast. The state of affairs that is being negated is: games are to be played fast. The state of affairs that is actually the case is: games are *not* played fast. When I check the negated state I ask: is it possible that games can be played fast? The answer is yes. When I check the actual state I ask: is it possible that *some* games are *not* to be played fast? As Archangel's pieces demonstrate, that is certainly the case. Since both states of affairs are met then I can conclude that this is indeed a CPP and not a case of opposites.

Feng Mengbo appropriates the form of a game, which is the fourth option, in his piece *Long March: Restart*. The statement to consider is: political propaganda is *not* a game. The state of affairs that is being negated is: political propaganda is a game. The actual state of affairs is: that a political propaganda is *not* a game. When I check the negated state I ask: is it possible that political propaganda can be a game? Mengbo's work is part of a movement of Political Pop Art (Artsy, 2014b), with its criticism of Cultural Revolution propaganda, that makes the game visible for all to see. When I check the actual state of affairs, I ask: is political propaganda *not* a game? The trauma created from the history of this type of misinformation answers this question affirmatively.

4.4. Steps 4 and 5: If the Piece has at least One CPP, Decide what the Predicate [P] Is

The question to ask from all of these examples is: do these works reveal a unifying theme and is there a unifying feature? A possible characteristic could be, *to bring the digital reality into the physical reality*. This could be construed as an unsuccessful imitation of Pop Art or a successful creation of a new predicate that builds on Pop Art. If the latter, the work is a likely candidate to identify as the innovation found in these works. This thought can be tested with steps six and seven.

4.5. Step 6: Is Bringing the Digital Reality into Physical Reality Essential to the Identity of Art?

First, I need to distill this phrase down to its essence. When a game artwork *brings the digital reality into the physical reality*, what is it actually doing? It is merging the digital and physical world. Through a game-induced experience, it builds a bridge and makes the divided world into one. I can expand on Danto's thought, and say that this theory brings the game artwork up to the world of Art, and keeps it from collapsing into the reality that it is two realities. I could call this phenomenon "intermingled reality." And so I can now formulate the question: is *intermingled reality* essential to the identity of Art? Is there a contradictory predicate that pairs with it in the same way that Expressionism pairs with Representation in Danto's example? The statement to consider: *intermingled reality* is essential to the identity of Art. The state that is being negated is *intermingled reality* is **not** essential to the identity of Art.

To clarify, the experience of realities in Art is that they are divorced from one another. In considering this thought, it starts to hit home fairly hard that this possible predicate is an innovation that not only builds on Dada innovations made visible in automatic writing (Baillehache, 2013), games such as *The Exquisite Corpse* (Molesworth, 2003) and FLUXUS overtures to use games as a metaphor for systems gone wrong (Sell, 1998), but it also simultaneously counteracts Pop Art's innovation (Danto, 2009), which keeps the Art object separate from the real object, and also contradicts Surrealism, which sought to depict the reality of the unconscious but is forever caught in confines of the object (Powers, 2004).

When I check the state that is actually the case, I ask: is it possible that *intermingled reality* **is not** essential to the identity of **some** Art? Yes, it is, as told to me by Danto. To understand Andy Warhol's *Brillo Boxes*, I have to understand that the reality of an actual Brillo box has to be kept separate from the Art object in order to accept Andy Warhol's version as Art.

And so since both states of affairs have been met, I have found the innovation, or predicate, that games bring to Art and can conclude, (Step 7) that *intermingled reality* is a **defining trait** of Art (Figure 7).
Figure 7: Specific example for evaluating A defining trait: Intermingled Reality [F]

5. Conclusion

Arthur Danto states that: "An artistic breakthrough consists, I suppose, in adding the possibility of a column to the matrix. … Whatever the artistically relevant predicate [is]…, the rest of the Artworld becomes that much richer in having the opposite predicate available and applicable to its members"(Danto, 1964, p. 584). In this article, I have proven that since the predicate of *intermingled reality* successfully builds upon the Pop Art innovation of separate realities, it is an innovation that games bring to and enrich the Artworld. This extends Danto's matrix (Figure 8).

Figure 8: Danto's matrix extended to include games

References

Archangel, C. (2000-2014). *Cory Arcangel's Official Portfolio Website and Portal*. Retrieved 12 28, 2014, from http://www.coryarcangel.com

Artsy. (2014a). *Feng Mengbo - 37 Artworks, Bio and Shows on Artsy*. Retrieved 12 30, 2014, from artsy.net: https://artsy.net/artist/feng-mengbo

Artsy. (2014b). *Political Pop | Artsy*. Retrieved 12 30, 2014, from artsy.net: https://artsy.net/gene/political-pop

Baillehache, J. (2013, Spring). Chance Operations and Randomizers in Avant-garde and Electronic Poetry Tying Media to Language. *Textual Cultures: Texts, Contexts, Interpretation, 8*(1), 38-56. Retrieved 12 30, 2014

Bateman, C. (2014, 12 14). Implicit Game Aesthetics. *Games and Culture*, 1-23. doi:10.1177/1555412014560607

Capcom. (1987). *Street Fighter*. Osaka, Japan: JP/NA/EU Capcom.

Clarke, A., & Mitchell, G. (2007). *Video Games and Art.* Bristol, UK: Intellect.

Cohen, T. (1999, Spring). High and Low Art and High and Low Audiences. *The Journal of Aesthetics and Art Criticism*, 137-143. Retrieved 1 3, 2015, from http://www.jstor.org/stable/432308

Danto, A. (1964). The Artworld. *The Journal of Philosophy, 61*(19), 571-584. doi:10.2307/2022937

Danto, A. (1983). *The Transfiguration of the Commonplace: A Philosophy of Art* (Reprint edition ed.). Cambridge, MA, USA: Harvard University Press.

Danto, A. (1998a). *After the End of Art.* Princeton, NY, USA: Princeton University Press.

Danto, A. (1998b). *Beyond the Brillo Box: The Visual Arts in Post-Historical Perspective* (Reprint edition ed.). Oakland, CA, USA: University of California Press.

Danto, A. (2009). *Andy Warhol.* New Haven, CT, USA: Yale University Press.

Danto, A. (2013). *What Art Is.* New Haven and London: Yale University Press.

Deen, P. D. (2011, 5). Interactivity, Inhabitation and Pragmatist Aesthetics. (E. Aarseth, & J. Enevold, Eds.) *Game Studies: The International Journal of Computer Game Research, 11*(2). Retrieved 8 29, 2014, from http://gamestudies.org/1102/articles/deen

Dena, C. (2009). Transmedia Practice: Theorising the Practice of Expressing a Fictional World across Distinct Media and Environments. *A thesis submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy (PhD)*. Sydney, Australia.

Eskelinen, M. (2001, 7). The Gaming Situation. (E. Aarseth, & J. Enevold, Eds.) *Games Studies: the international journal of computer game research, 1*(1). Retrieved 12 26, 2014, from http://www.gamestudies.org/0101/eskelinen/

Feige, D. M. (2012). Chapter 6: Computer Games As Works Of Art. In J. Fromme, & A. Unger (Eds.), *Computer Games and New Media Cultures: A Handbook of Digital Games Studies* (pp. 93-106). Dordrecht, Heidelberg, New York, London: Springer.

Fenner, D. E. (2005, 4 20). Production Theories and Artistic Value. *Contemporary Aesthetics*. Retrieved 1 3, 2015, from http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=265

Giora, R. (2006). Anything negatives can do affrmatives can do just as well, except for some metaphors. *Journal of Pragmatics, 38*, 981–1014.

Givon, T. (1978). Negation in language: pragmatics, function, ontology. (P. Cole, Ed.) *Syntax and Semantics*, 69–112.

Glenberg, A., Robertson, D., A., Jansen, J., L., Johnson-Glenberg, . . . C. (1999). Notpropositions. *Journalof Cognitive Systems Research, 1*, 19–33.

Haddock, J. (2000-2014). *Projects*. Retrieved 12 28, 2014, from whitelead.com: http://whitelead.com/jrh/

Haddock, J. *Elian Gonzalez.* Phoenix, AZ. Retrieved 12 30, 2014, from http://whitelead.com/jrh/screenshots/miami.JPG

Hall, W. J. (2001, 4). Line Of Sight. (M. McClusky, Ed.) *Wired, 9*(4). Retrieved 12 28, 2014, from http://archive.wired.com/wired/archive/9.04/eword.html?pg=3

Horn, L. R. (1989). *A Natural History of Negation.* Chicago, IL: University of Chicago Press,.

iniva.org. (2005, 8). *Feng Mengbo*. (I. (. Arts), Producer) Retrieved 12 30, 2014, from Digital Art Resource for Education: http://www.iniva.org/dare/themes/play/feng.html

Invader. (1998-2014). *Invader-Home*. Retrieved 12 28, 2014, from http://space-invaders.com/

Invader. (2014). *Flash Invaders.* Paris, France: LTU Technologies.

Karhulahti, V.-M. (2012). Pissing in the Fountain: Videogames and Expressive Performance. *GAME: The Italian Journal of Game Studies, 1*. Retrieved 5 18, 2015, from http://www.gamejournal.it/pissing-in-the-fountain-videogames-and-expressive-performanc

Kaup, B., Lu¨dtke, J., & Zwaan, R. A. (2006). *Processing negated sentences with contradictory predicates: Is a door that is not open mentally closed?* (Special Issue: Processes and Products of Negation ed., Vol. 38). Journal of Pragmatics - Elsevier. doi:10.1016/j.pragma.2005.09.012

Latson, J. (2014, 11 25). Elian Gonzalez, 15 Years Later. *Time*. Retrieved 12 30, 2014, from http://time.com/3594675/elian-gonzalez-history/

Maher, J., Montfort, N., & Bogost, I. (2012). *Platform Studies : Future Was Here : The Commodore Amiga.* Cambridge, MA, USA: MIT Press.

Maxis. (2000). *The Sims.* Redwood City, CA, USA: Electronic Arts.

Meintema, R. (2012, 2). Playing in Perspective: An Art Historical Analysis of Spatial Representations in Video Games. *Crossings: eJournal of Art and Technology, 6*(1). Retrieved 5 18, 2015, from http://crossings.tcd.ie/issues/6.1/Meintema/

Mengbo, F. Long March: Restart. *MoMA | The Collection.* MoMA, New York, NY. Retrieved 12 13, 2014, from http://www.moma.org/collection/browse_results.php?object_id=122872

Molesworth, H. (2003, Summer). From Dada to Neo-Dada and Back Again. *October, 105*, 177-181. Retrieved 12 30, 2014, from http://www.jstor.org/stable/3397693

Nintendo EAD. (1985). *Super Mario Bros.* Kyoto, Japan: Nintendo.

Pajitnov, A. (1984). *Tetris.* Lyon, France: Infogrames.

Panofsky, E. (1997). *Three Essays on Style.* Cambridge, MA, USA: MIT Press.

Parker, T. (2011, 7 7). *Jon Haddock Questions Your Philosophy In "Idios Kosmos: Koinos Kosmos," at SMoCA*. (N. Times, Producer) Retrieved 12 28, 2014, from phoenixnewtimes.com: http://www.phoenixnewtimes.com/2011-07-07/culture/jon-haddock-questions-your-philosophy-in-idios-kosmos-koinos-kosmos-at-smoca/

Phoenix College. (2014). *Jonathan Haddock | Phoenix College*. Retrieved 12 28, 2014, from http://www.phoenixcollege.edu/employees/3667/haddock

Powers, E. D. (2004, 8). Bodies at Rest: Or, the Object of Surrealism. *RES: Anthropology and Aesthetics, 46*, 226-246. Retrieved 12 30, 2014, from http://www.jstor.org/stable/20167650

Ryynänen, M. (2005, 7). Nobrow. *The Nordic Journal Of Aesthetics, 17*(32). Retrieved from http://ojs.statsbiblioteket.dk/index.php/nja/article/view/2978/2563

Sell, M. (1998).) The Avant-Garde of Absorption: Happenings. *Rethinking Marxism: A Journal of Economics, Culture & Society, 10*(2), 1-26. doi:10.1080/08935699808685524

Simons, J. (2007). Narrative, Games, and Theory. (E. Aarseth, & J. Enevold, Eds.) *Game Studies: the international journal of computer game research, 7*(1). Retrieved 12 26, 2014, from http://gamestudies.org/07010701/articles/simons

Smuts, A. (2005a). Are Video Games Art? (A. Berleant, Ed.) *Contemporary Aesthetics*. Retrieved 12 26, 2014, from http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=299

Smuts, A. (2005b). Video Games and the Philosophy of Art. (R. Stecker, & T. Gracyk, Eds.) *Journal of Aesthetics and Art Criticism*. Retrieved 12 26, 2014, from http://aesthetics-online.org/articles/index.php?articles_id=26

Taito. (1978). *Space Invaders.* Tokyo, Japan: Taito Corporation.

Tavinor, G. (2008). Definition of Videogames. (A. Berleant, Ed.) *Contemporary Aesthetics, 10*, 1. Retrieved 12 26, 2014, from http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=492

Tavinor, G. (2009a). Videogames, Interactivity, and Art. (R. Stecker, & T. Gracyk, Eds.) *Journal of Aesthetics and Art Criticism*. Retrieved 12 26, 2014, from http://aesthetics-online.org/articles/index.php?articles_id=44

Tavinor, G. (2009b). *The Art of Videogames.* West Sussex, UK: Wiley-Blackwell.

Tavinor, G. (2011, 5 5). Video Games as Mass Art. (A. Berleant, Ed.) *Contemporary Aesthetics*. Retrieved 12 26, 2014

The Japan Foundation. (1995). *Visions of Happiness Ten Asian Contemporary Artists.* Japan: The Japan Foundation ASEAN Culture Center. Retrieved 12 30, 2014

Wason, P. C. (1965). The contexts of plausible denial. *Journal of Verbal Learning and Verbal Behavior, 4*, 7–11.

Wilson, D. A. (2013). "Duchamping in Game Makgin" : An Analysis of Pippin Barr's Parodic Computer Games. *Modern Languages and Literatures Annual Graduate Conference.* London, Ontario, CA: Western University. Retrieved 5 18, 2015, from http://ir.lib.uwo.ca/mllgradconference/2013Conference/MLL2013/3/

Yu, C. Y. (2014, 5 2). *New Acquisition: Feng Mengbo: Long March: Restart | Unframed*. Retrieved 12 13, 2014, from unframed.lacma.org: http://unframed.lacma.org/2014/05/02/new-acquisition-feng-mengbo-long-march-restart/

Figures

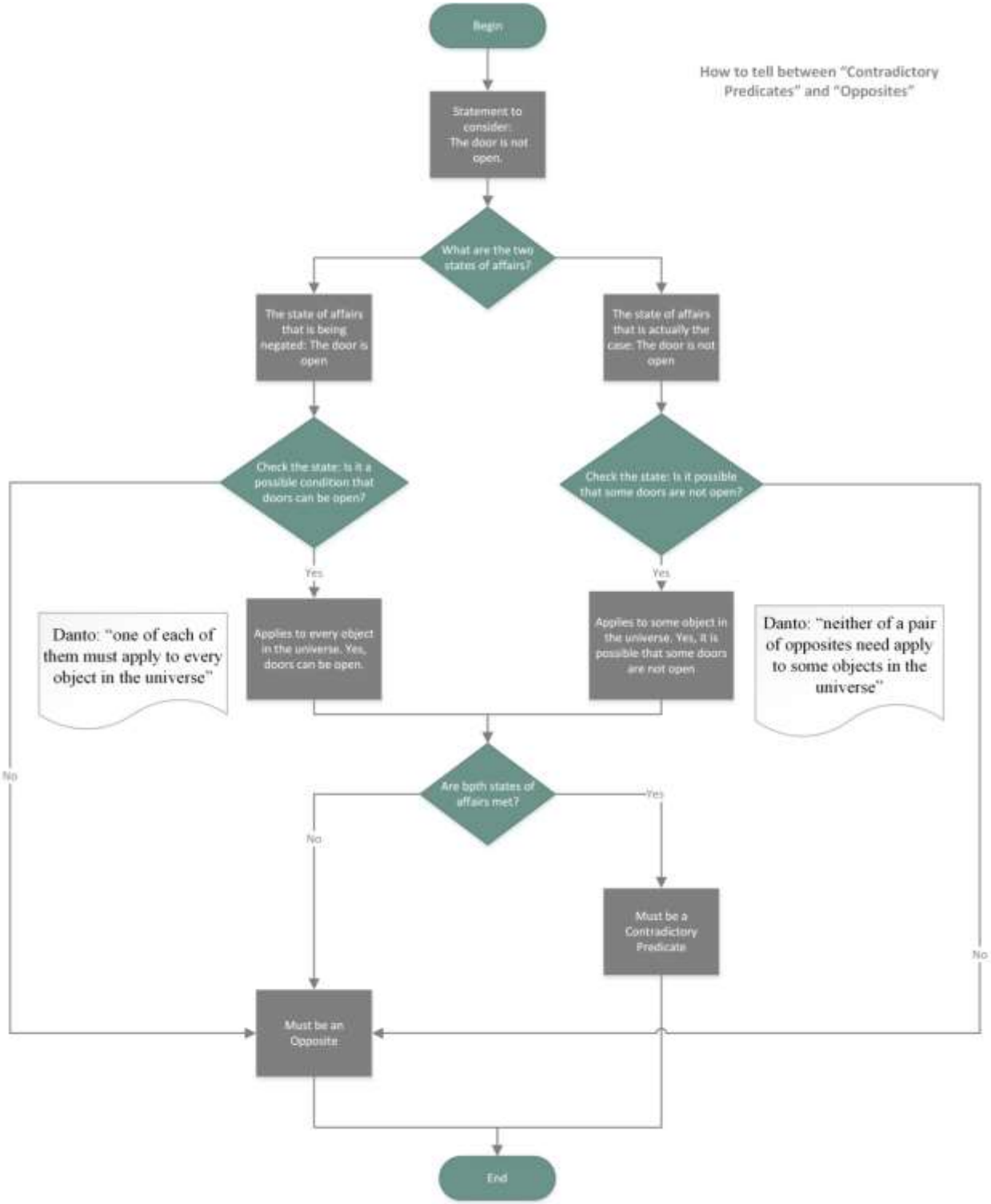

Figure 1: How to tell the difference between "Contradictory Predicates" and "Opposites"

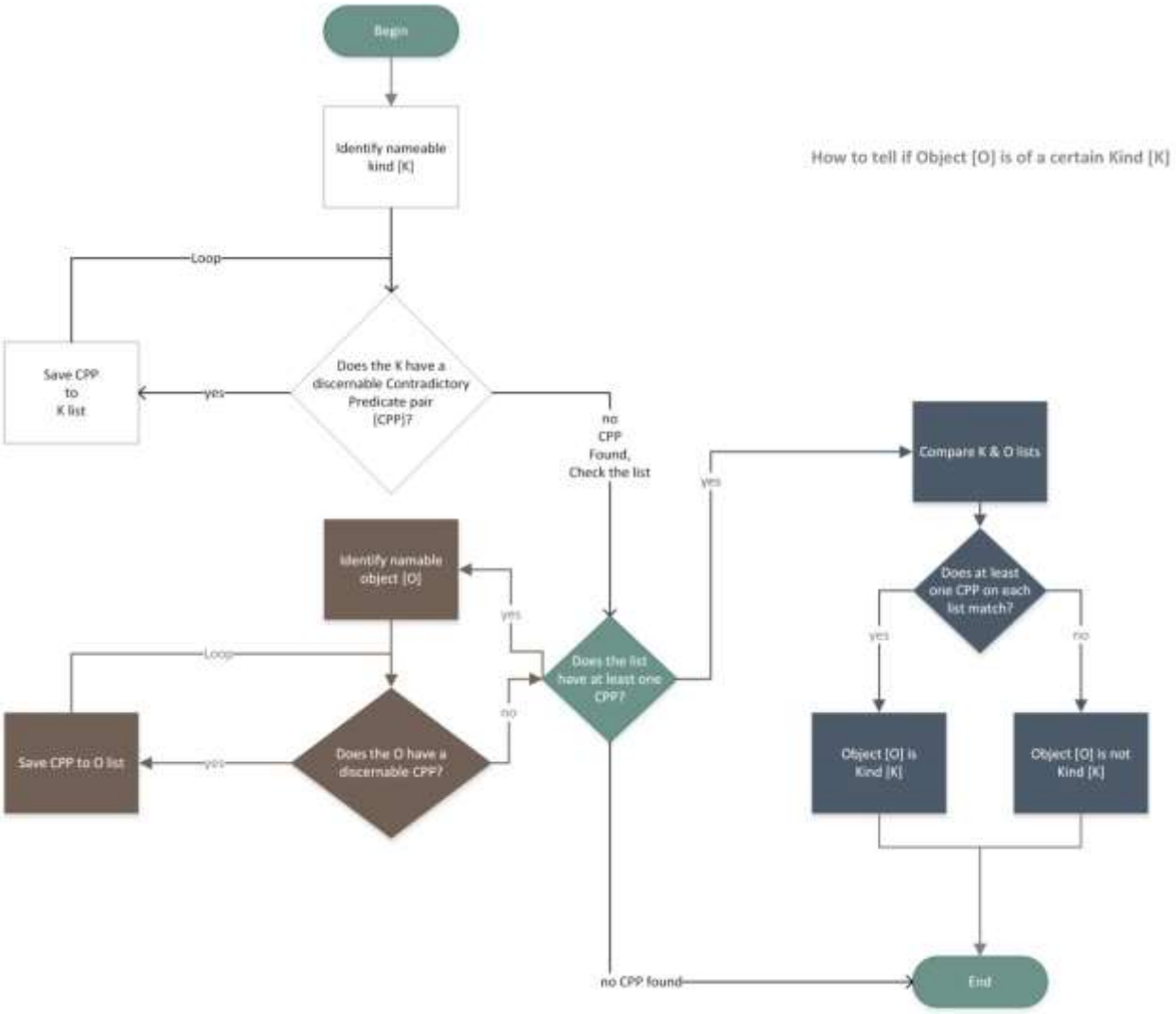

Figure 2: How to tell if Object [O] is of certain Kind [K]

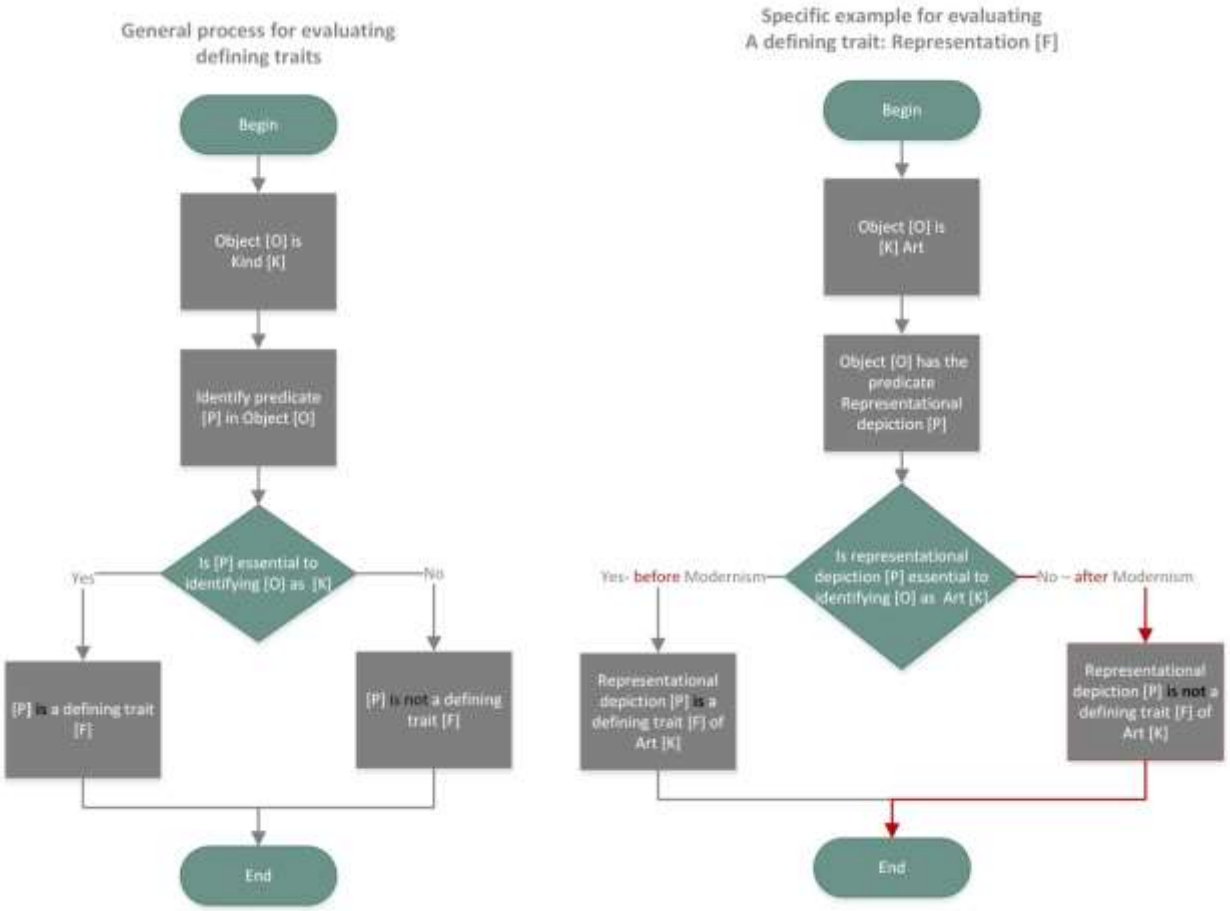

Figure 3: Process for discovering the validity of a trait and a specific example, as described by Arthur Danto

Figure 4: Comparison of examples F and G, as described by Arthur Danto

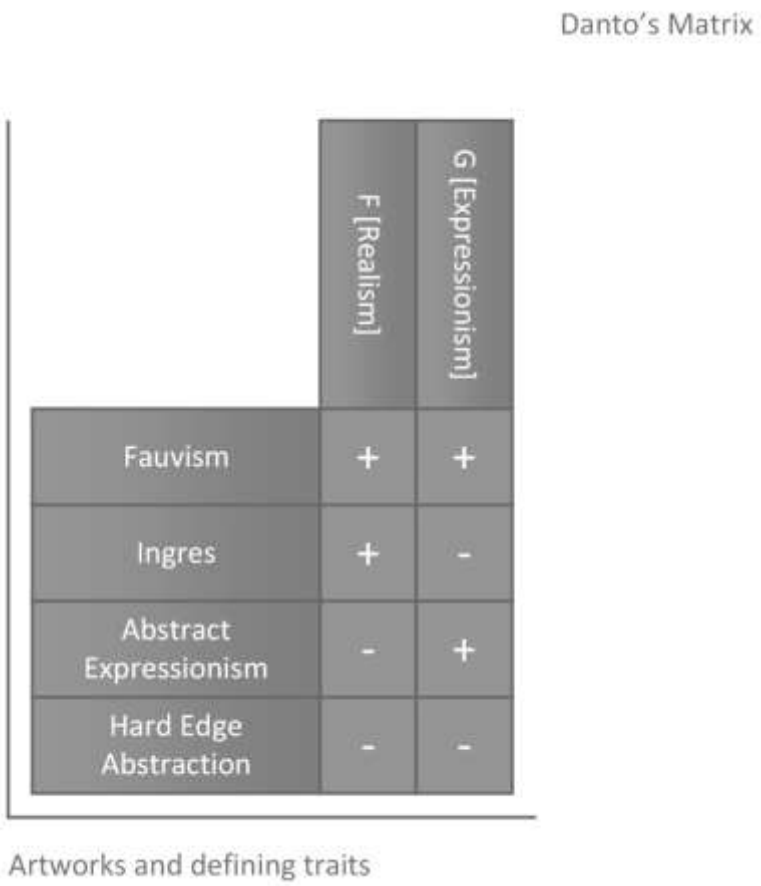

Figure 5: Arthur Danto's matrix

Danto's Matrix, Extended

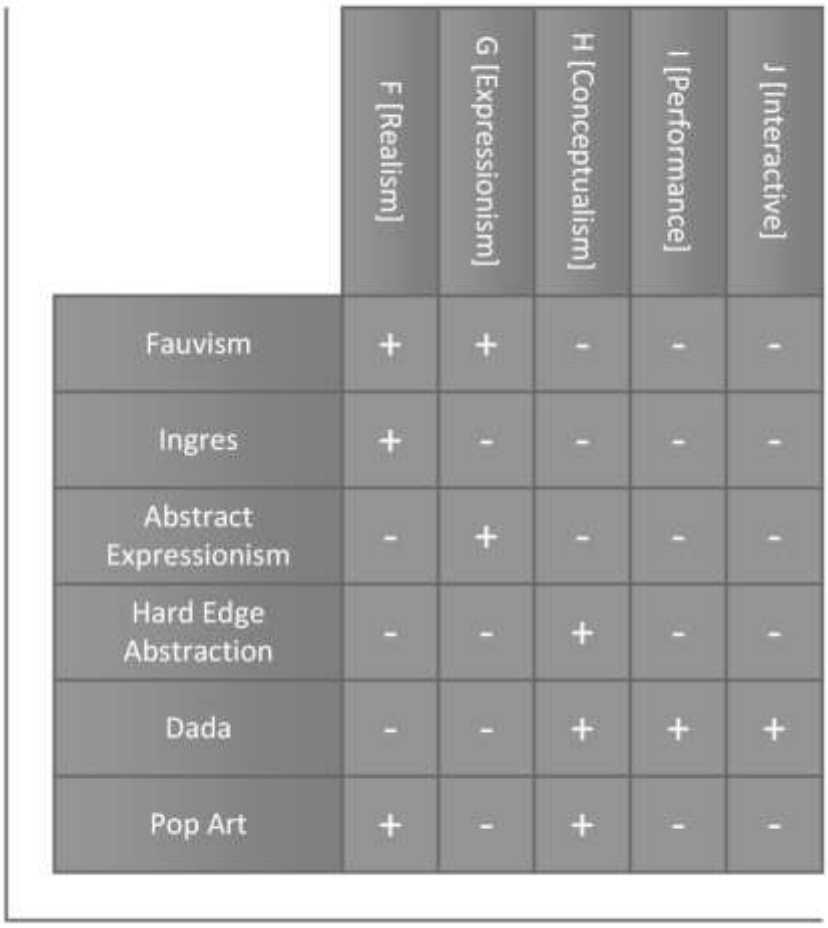

Figure 6: Arthur Danto's matrix, Extended to include Pop Art and Dada

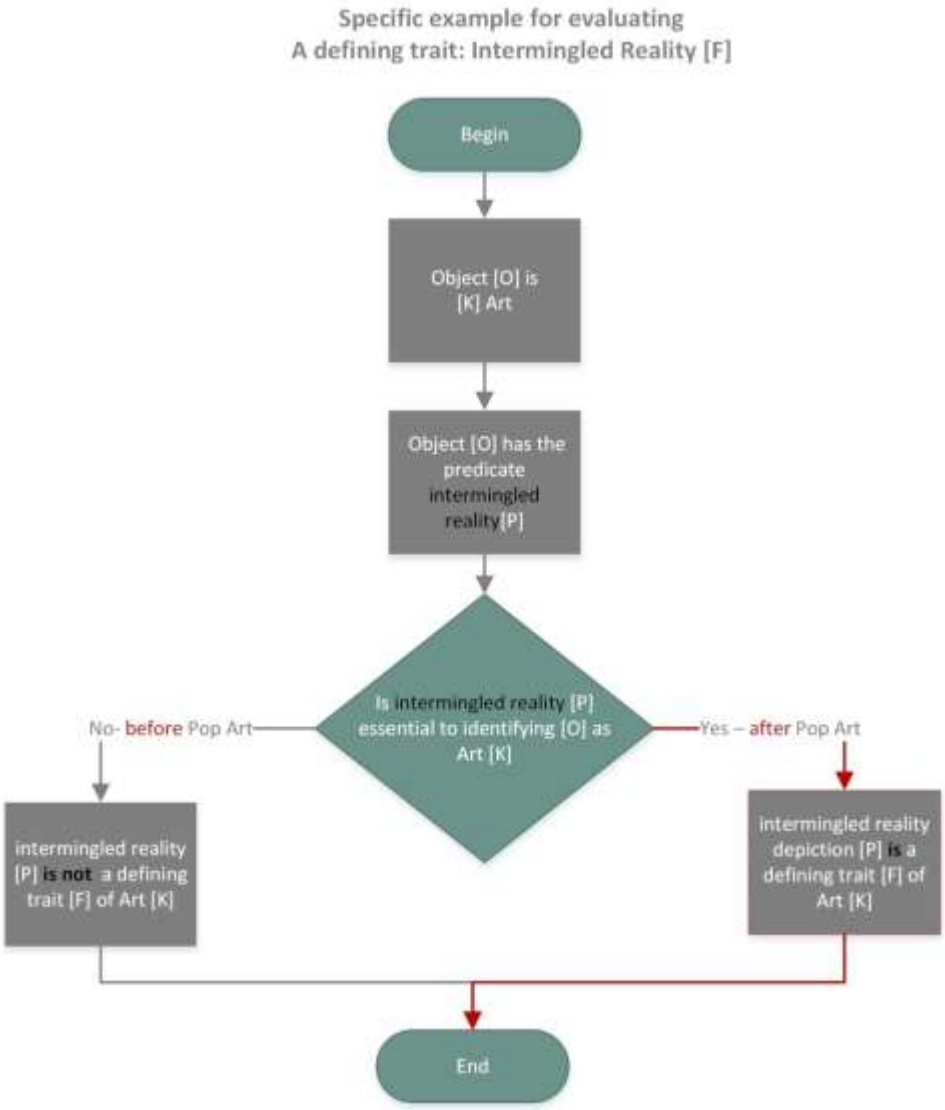

Figure 7: Specific example for evaluating A defining trait: Intermingled Reality [F]

Danto's Matrix, Extended

	F [Realism]	G [Expressionism]	H [Conceptualism]	I [Performance]	J [Interactive]	K [Intermingled Reality]
Fauvism	+	+	-	-	-	-
Ingres	+	-	-	-	-	-
Abstract Expressionism	-	+	-	-	-	-
Hard Edge Abstraction	-	-	+	-	-	-
Dada	-	-	+	+	+	-
Pop Art	+	-	+	-	-	-
Games	-	-	+	+	+	+

Artworks and defining traits

Figure 8: Danto's matrix extended to include game