

# The Creativity of Crumb: Research on the Effects of Psychedelic Drugs on the Comic Art of Robert Crumb

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**Abstract**—This article investigates the influence of perception that is altered by psychedelic drugs on processes of creativity through a case study of the work of well-known comic artist Robert Crumb. Samples of Crumb's work before, during, and after the period of his use of psychedelic drugs are content analyzed and compared according to the categorization offered by Janiger and Dobkin de Rios (1989). The results of the comparison indicate that Robert Crumb's drug use significantly altered the stylistic approach of his artwork not only during the period of his drug use, but long after he had stopped using drugs.

**Keywords**—content analysis, comic art, creativity, perception, psychedelic drugs, Robert Crumb

The impact that psychedelic drugs, particularly lysergic acid diethylamide (LSD), have on creativity has been studied with observational, experiential and experimental methods from the 1940s through the 1960s and beyond. Among the earliest examples of this research is Maclay and Guttman's (1941) study of patients who had illustrated their mescaline-induced hallucinations. In general, however, Krippner (1968) has observed that there have been five particularly notable research projects concerning psychedelic drugs and creativity. To this, I will also add the more recently published work of Janiger and Dobkin de Rios (1989).

Beginning with observational methods, Berlin, Guthrie, Weider, Goodell and Wolff (1955) studied the effects of LSD and mescaline on four nationally recognized visual artists, noting specifically (based on the assessment of a panel of art critics) that work influenced by psychedelics

had the qualities of bolder lines and more vivid colors. In another observational study conducted by Barron (1963), the psilocybin-inspired impressions of creative individuals are described as permitting the dissolution of boundaries and promoting greater intensity of experience.

Beyond observation, experimental studies conducted during the 1950s and 1960s sought to measure the effects of psychedelics on creativity with more precision. The most interesting of these results emerged from the works of Harman, McKim, Mogar, Fadiman and Stolaroff (1966) and Zegans, Pollard and Brown (1967), both of which found evidence to suggest a causal relationship between psychedelic drug use and improved scores on tests of creativity. Harman and colleagues (1966: 218) determined that "scores on a stable test can shift dramatically upward under the drug condition . . . and this shift is in the direction of enhanced ability to recognize patterns, to isolate and minimize visual distractions, and to maintain visual memory in spite of confusing color and spatial forms." Zegans and colleagues (1967),

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using a modified version of the Rapaport Word Association Test of 1958, found that the those in the experimental condition (who had ingested LSD) performed significantly better than the controls on the retest for originality of word associations.

Since the publication of Krippner's (1968) overview, Janiger and Dobkin de Rios (1989) have published an important categorization of LSD-inspired perceptual alterations based upon the examination of drawings and paintings of an ornamental Deer Kachina doll produced by artists before and after LSD ingestion. Out of this categorization, eleven dimensions of perceptual alteration have emerged that include: *relative size expansion, involution, alteration of figure/ground, alteration of boundaries, movement, greater intensity of color and light, oversimplification, symbolic depiction, abstraction, fragmentation/disorganization and distortion*. These dimensions will serve as the basis for the content analysis that is the subject of this article.

While certainly useful and necessary as first steps, these investigations leave many questions unanswered regarding the actual processes by which psychedelic drugs facilitate creativity. Further, much of this work has been criticized based on its incompleteness, lack of rigor and incompatibility (Berge 1999; Krippner 1968). Of course, the reason that this is still the case over 30 years later is that drug laws instituted in the late 1960s have prevented controlled experimentation.

All is not lost, however, in terms of pursuing answers to questions regarding LSD's impact on creativity. Because it is generally the case that psychedelic substances promote increased creativity only in individuals who are already endowed with creative gifts (Krippner 1977), use of case studies may prove valuable in the absence of legal experimentation. One particularly unique and advantageous opportunity is present in the case of the influential underground comic artist, Robert Crumb. Due to Crumb's detailed testimony about his drug experiences as well as his readily available and exhaustive compendium of work published in *The Complete Crumb Comics* series, portions of his work can be examined in light of their correspondence to periods in which he was experiencing the effects of LSD.

### ROBERT CRUMB

Born in Philadelphia, Pennsylvania on August 30, 1943, Robert Crumb is perhaps best known for his archetypical cartoon characters, which began flooding the underground comic scene in the late sixties and eventually found their way into the mainstream popular culture in the form of album covers (such as Janis Joplin's *Cheap Thrills* in 1968) and illustrated slogans ("Keep on Truckin'").

Crumb's most famous and enduring creations, including Fritz the Cat, Mr. Natural, The Old Pooperoo, Eggs Ackley, Angelfood McSpade and The Snoid, are cataloged in their entirety throughout 17 volumes of *The Complete Crumb*

*Comics* (Groth et al. 1987-2005), a catalog raisonné which details his work from 1958 through the 1990s (so far).

Most recently, Terry Zwigoff's (1994) documentary titled "Crumb," has brought attention to the work of this very prolific and well know icon of the underground art world by winning best documentary awards in 1995 from the Los Angeles Film Critics Association, the National Society of Film Critics, the New York Film Critics Circle, the Seattle International Film Festival and the Sundance Film Festival.

Given the above, it seems safe to conclude that Robert Crumb is a fitting example of a creative artist whose work has been significantly impacted by psychedelic drugs. But what exactly is creativity? Dobkin de Rios and Janiger (2003: 76) define creativity as "the capacity to take existing materials and combine them in unusual ways to unique ends." More widely recognized in the literature on creativity, however, is Sternberg and Lubart's (1999, 1996) definition of creativity as "the ability to produce work that is both novel (i.e. original, unexpected) and appropriate (i.e. useful, adaptive concerning task constraints)." A third definition that is interesting because of its broad scope defines creativity as "goal-directed novelty" (R. W. Weisberg, personal communication, Spring 2005).

All three of these definitions share the basic concept of novelty/uniqueness as a necessary (although not sufficient) condition of creativity. Recognizing the importance of novelty/uniqueness in creative production, Campbell (1960) and Simonton (1999) argue that it (novelty/uniqueness) is generated by "blind variation" and "selective retention" much in the same way as Darwinian natural selection. One particular way in which blind variation and selective retention might be assisted or enhanced is through the altered perception experienced when under the influence of psychedelic drugs. If, as Mednick (1962) suggests, creativity is enhanced by the increased breadth of potential responses and possible combinations of responses, the altered perceptions and expanded consciousness offered by psychedelics might prove useful to promoting creative thinking.

It has been suggested in previous research on creative individuals (see Dobkin de Rios & Janiger 2003; Harman et al. 1966) that psychedelic drugs have the potential to improve creative performance. Harman and colleagues (1966: 212) clearly state that, ". . . psychedelic agents may facilitate lasting change in the direction of increased creative expression and self-actualization." Obviously it is the case that, outside the purview of formal research, many artists have used drugs to augment perception and bring on creative inspiration (Ludwig 1998; Krippner 1968). Crumb's own testimony of how LSD affected his work helps to further illuminate how drug-induced psychedelic experiences work to enable creative processes. He reported that, ". . . somehow LSD had liberated me in this way that allowed me to put it [comic art] down [on paper] and not worry about what it meant" (Zwigoff 1994). The critical

turning point in Crumb's LSD-inspired comic artwork came early on with what has become known as the "fuzzy acid" episode, which he describes in great detail both in Zwigoff's (1994) documentary and in the introduction to volume four of *The Complete Crumb Comics* (1989). For the purpose of establishing the role of LSD in Crumb's work and detailing an experience of crucial importance, these two descriptions by Crumb are excerpted in their entirety:

I had this big change in 1965 and 66 and it was visionary . . . very powerful kind of like knock you on your ass kind of visionary experience . . . I took this very weird drug, supposedly it was LSD but I had a really weird effect where it made my brain all fuzzy and the effect lasted for a couple of months and I started getting these images they were kind of like cartoon characters . . . that I'd never drawn before . . . I let go of trying to . . . have any . . . fixed idea about what I was doing and I started to be able to draw these . . . stream of consciousness comic strips . . . All the characters that I used for the next several years I thought up during this . . . all came to me during this period (Zwigoff 1994).

I feel like I'm back in kindergarten. It's all new to me . . . I've been stumbling around in a delirium since I took some weird psychedelic drug . . . the stuff came on like normal acid . . . the usual trippy sensations, the visual effects, the expanding consciousness into infinity—like, WOW—then all of a sudden everything went, like, fuzzy—like, the reception went bad—I lost the picture, the sound, everything—it was so weird, but not particularly frightening. For the next couple of months I felt like the guy in *Eraserhead* . . . everything was dreamlike and unreal (Crumb 1989: viii).

Based on these two subjective reports, it seems that Crumb is describing a loosening of cognitive and social structures through augmented perception. Describing the experience as having augmented perceptual channels such as "picture" (vision) and "sound" (hearing) and, perhaps as a result, permitting him to "let go" of any "fixed idea" concerning what he was doing seems very similar to certain concepts that have been discussed with reference to creativity. Krippner (1968: 65), for example, noted that, "psychedelics, when used properly, enable artists to stand apart from their culture." Similarly, Berge (2002: 255), in describing the psychedelic model of the 1950s, writes that, "Instead of changing the user into something other than himself, drugs like LSD were now thought to reveal a 'true' inner self that supposedly lay buried behind a lifetime of social and psychological programming: LSD became the 'acid' to burn this patina off."

Research on infantile autism has revealed that cognitive mindsets are in some ways inhibitory of creative behavior: "It would appear that we are all blinded by our mental paradigms—by our mindsets! We emphatically do not examine each situation anew by logically considering all possibilities. Instead, we look at the world through our mindsets, mindsets acquired from our past experiences" (Snyder 1998: 2). Thus, it seems that reducing dependence upon mindsets may provide access to a vastly increased depth and breadth of combinatory possibilities and blind

variations. However, the drawback is that conceptualization is lost. As Snyder (1998: 7) further asserts, "Minds need to adopt paradigms for rapid conceptualization and automatic behavior. We cannot achieve creative genius by abandoning our mental paradigms."

It would seem, based on both the advantages offered by the organizing function of mindsets, and the advantages offered by the perceptual function that exists in their absence, that a psychedelic experience might be useful in providing a temporary period in which the mindset is abandoned and ideas and inspirations are gathered (blind variation) so that later (when the mindset is once again in place) creative production can take place based on the selective retention of the psychedelic experience.

It is noted specifically, with regard Crumb, that his psychedelic experiences were used to "harvest" ideas intended for later production. Comic art scholar Robert Harvey (1996) reports that Crumb was unable to draw while high and used the experience as inspiration for work created afterwards.

## HYPOTHESIS

The psychedelic experience induces creative production by facilitating "blind variation and selective retention" (Simonton 1999; Campbell 1960) from a vastly larger pool of combinatory possibilities that are fostered through various perceptual alterations provoked by the psychedelic experience. If this is the case, it should be expected that an analysis of perceptual alteration techniques comparing Crumb's LSD-inspired work to his non LSD-inspired work will reveal the former to include relatively more examples of perceptual alteration techniques than the latter.

## METHOD

A content analysis was performed using a coding scheme that was based on Janiger and Dobkin de Rios' (1989) 11 categories of perceptual alteration techniques. For the purposes of parsimony and clear operationalization, the 11 techniques were modified slightly in the following way: (1) number eight ("objects may be depicted symbolically—or as essences") was dropped because it overlapped with number seven ("oversimplification"); (2) number 10 ("fragmentation and disorganization") was separated into two separate categories, each with their own operational definition; and (3) labels were altered for the sake of clarity and specificity. Thus, the final list of categories of perceptual alteration is composed of *expansion*, *involution*, *circularity*, *boundary loss*, *movement*, *intensity*, *fragmentation*, *disorganization*, *distortion*, *oversimplification*, and *abstraction*.

Each of the categories of perceptual alteration were operationalized by referring to techniques described in the literature on comic art production (see Eisner 1996, 1985; McCloud 1993). For complete operational definitions of each, please refer to the coding sheet (Appendix A).

**TABLE 1**  
**Adjusted Scores**

	1958	1965	1967	1968	1977/1978
Total number of pages	20	60	103	92	33
Rounding	20	60	100	90	30
Adjustment	X5	X1.7	X1	X1.1	X3.3
Expansion	40	51	20	53.9	56.1
(raw)	8	30	20	49	17
Involution	0	0	5	12.1	9.9
(raw)	0	0	5	11	3
Circularity	15	30.6	58	49.5	3.3
(raw)	3	18	58	45	1
Boundary Loss	5	20.4	27	29.7	33
(raw)	1	12	27	27	10
Movement	1835	236.3	2520	2882	1455.3
(raw)	367	139	2520	2620	441
Intensity	65	10.2	65	161.7	316.8
(raw)	13	6	65	147	96
Fragmentation	0	0	6	26.4	27.9
(raw)	0	0	6	24	9
Disorganization	0	0	127	59.4	99
(raw)	0	0	127	54	30
Distortion	0	0	50	30.8	62.7
(raw)	0	0	50	28	19
Oversimplification	3.5	3.3	3.6	3.6	2.8
Abstraction	3	2.8	3	3.1	2.8

### Sample

A total of 308 pages of comic text from *The Complete Crumb Comics* catalog raisonné were selected for coding based on the years during which the comics were produced. Work from 1958 was selected as a baseline for comparison because Crumb had not yet experimented with drugs or any other psychedelic agents or techniques. Work from 1965 was chosen because Crumb, among others (see Harvey 1996; Pahls 1988), reported having his first psychedelic experience during this year. Works from 1967 and 1968 were included because they were created shortly after Crumb's well-documented "fuzzy acid" experience, which lasted about two months and ended in April of 1966. In addition to this, his work from 1967 and 1968 is regarded by Crumb himself, along with many of his fans, as his best creative work (Crumb 1992).

The LSD-inspired work immediately following 1968 was not included because, at that time, Crumb began to feel the influence of other underground cartoonists that would make it unclear whether he was drawing inspiration from the drugs, from his peers or from both (Crumb 1990).

Finally, works from the years 1977 and 1978 were combined (due to insufficient individual sample size) and selected because they were created during the period shortly after Crumb reportedly stopped drug use altogether (Crumb 1990).

### Units of Analysis

The sampling units were comic strips and other forms of comic art (such as portraits and single panel cartoons) that were selected based on year of publication. The recording units were the individual panels of comic artwork or

**TABLE 2**  
**Ranked Scores**

	1958	1965	1967	1968	1977/1978
Total	18	17	32	38	34
Expansion	2	3	1	4	5
Involution	1	1	2	4	3
Circularity	1	3	5	4	2
Boundary Loss	1	2	3	4	5
Movement	3	1	4	5	2
Intensity	2	1	2	3	4
Fragmentation	1	1	2	3	4
Disorganization	1	1	4	2	3
Distortion	1	1	3	2	4
Oversimplification	3	2	4	4	1
Abstraction	2	1	2	3	1

\*1 = lowest number of instances, 5 = highest number of instances

other individual cartoon drawings that existed within each sampling unit.

### Procedure

All of Crumb's published comic artwork from each of the previously mentioned six years were coded by the author according to the criteria specified on the coding sheet (Appendix A). Reliability was maintained via double coding of each item. If scores were different upon the second coding, the criteria on the coding sheet were revised to increase specificity and coding was repeated until consistent scores were found on both trials.

## RESULTS AND DISCUSSION

Total quantities of pages for each year in the sample were rounded to the nearest ten and raw scores for each category of perceptual alteration (with the exception of oversimplification and abstraction) were adjusted for comparison based on the year with the largest number of pages included (1967; see Table 1). Once this was accomplished, scores were rank ordered on a five-point ordinal scale from fewest examples of perceptual alteration techniques (1) to most examples (5; see Table 2). Finally, rank scores for each year were summed to obtain an overall idea of how much or how little the work from each year exhibited perceptual alteration relative to the others (see Table 2, Figure 1).

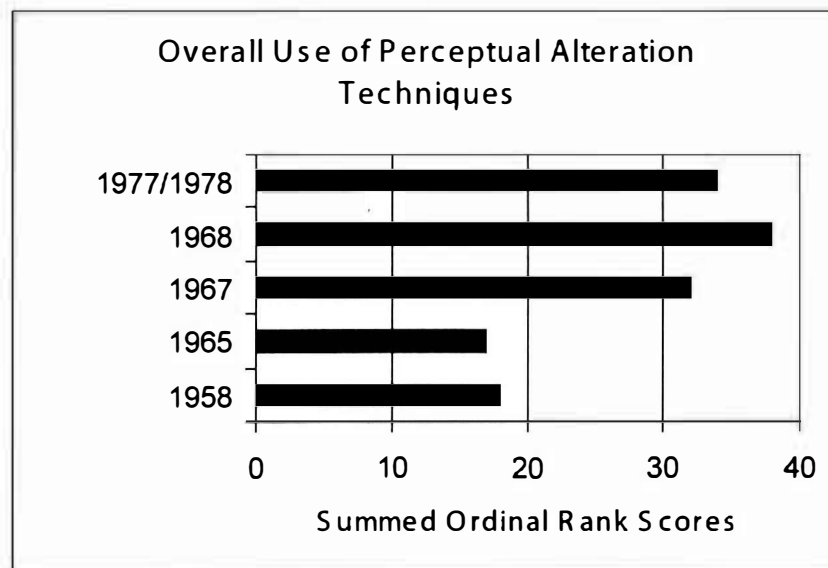
Scores adjusted based on number of pages is used in place of simple percentages (of individual comic strips or panels) for each year because these units of analysis vary widely based on the style of presentation used by Robert Crumb. Therefore, pages were counted and rounded and

scores were adjusted based on this to provide equivalency so that proportionate differences between years could be compared. This was not done for the categories of "oversimplification" and "abstraction" because these exist in varying degrees as an inherent aspect of all of the comic artwork and are measured by comparison to "The Picture Plane" chart (McCloud 1993) rather than through counting specific instances. More specifically, oversimplification and abstraction scores were determined by comparing the level of oversimplification and abstraction in the comic strip/story to an illustration of "The Picture Plane" (a chart showing the range of detail and abstraction used in comic art) drawn by McCloud (1993) that was modified to serve as an interval scale. Scores were subsequently averaged and entered into Table 1 so that higher averages indicate higher levels of oversimplification and abstraction.

As expected, Crumb's work from 1958 and 1965 showed the least amount of overall perceptual alteration of any of the years selected (Figure 1), with no examples whatsoever found for involution, fragmentation, disorganization or distortion in either year (Table 1). While for 1958 the ranked score for oversimplification was three and for abstraction two (Table 2), this was probably due to the fact that at age 14 Crumb was still working on the basics of drawing. Ranks for some other categories of perceptual alteration were also elevated above one for 1958 and 1965 (Table 2), but no systematic explanation seems more likely to be the case than the natural fluctuation that accompanies an artist's evolution of style.

Also as predicted, 1967 (the portion of the sample immediately following Crumb's "fuzzy acid" experience) saw a drastic increase in perceptual alteration techniques. In fact,

**FIGURE 1**  
Differences in Quantity of Perceptual Alteration Techniques



the largest gap between summed rank scores was between 1965 (when Crumb was initially introduced to LSD) and 1967 (after his extended “fuzzy acid” trip) with a difference of 15 points (with the average difference between ranks being 6.5 points) (Table 2). Especially critical with respect to the difference between 1965 and 1967 is the perceptual alteration category of “disorganization.” While no instances of disorganization were coded for 1965, 127 instances were coded for 1967 (Table 1). This is of specific interest because of the relationship that disorganization has to the concept of blind variation. Operationalized as a “non-sequitur” transition—a transition that “offers no logical relationship between panels” (McCloud 1993: 72)—disorganization is a defining feature of the random and blind variation that is an important part of the process that is at the heart of creativity. It is also worthy of note that the sheer volume of work produced by Robert Crumb during this period is greatest (Table 1), maximizing the opportunity for blind variation.

Most surprising is the finding that 1977/1978 displayed the second largest overall frequency of techniques employing perceptual alteration (Figure 1). The largest percentage of expansion, boundary loss, intensity, fragmentation and distortion were all located in the 1977/1978 period (Table 2), at least two years after Crumb reported giving up psychedelic substances.

One compelling explanation for the persistence of perceptual alteration techniques in Crumb’s work is selective

retention (Simonton 1999; Campbell 1960). It is plausible to suggest that he selectively retained the most effective stylistic approaches produced by the psychedelic experiences that initially brought about perceptual alterations, and joined these with improved technical skills. Crumb himself reports:

I quit taking drugs completely. Stopped taking LSD and smoking marijuana and I finally felt my head clear and I started to get more serious about drawing again and more interested in technical aspects of drawing and I began to really enjoy being able to concentrate in this way that I’d forgotten how to do from being stoned all the time (Dickinson 1987).

Indeed, Crumb’s level of oversimplification and abstraction sank from 3.6 and 3.1 respectively to 2.8 and 2.8 (see Table 1) (the largest gaps between any two years in these parts of the sample) indicating that technical mastery may have permitted him to begin to draw more realistically while still retaining the expanded sense of perception gained from his LSD experiences.

Returning to the initial hypothesis, it can be concluded that Crumb’s post-LSD work (1977/1978 in the sample), though not created under the direct influence of psychedelic agents, still draws upon perceptual alterations to gain access to the fluidity of consciousness that facilitates blind variation and selective retention.

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## APPENDIX A The Creativity of Crumb: Coding Sheet

Year \_\_\_\_\_

Number of Pages \_\_\_\_\_

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**General Instructions:** Please read each set of instructions on this sheet carefully before completing the sections to which they refer. Each coding sheet is to be applied to a year (1958, 1965, 1967, 1968, 1977/1978) in the sample of entries from *The Complete Crumb Comics*.

**Section 1: Expansion:** the figure tends to fill all available space and shows difficulty being contained within its borders.  
*Operational Definition:* Code instances of "expansion" whenever the "figure" (e.g. character/object), or a solid mass of figures, makes at least partial contact with all four sides of the container-panel and/or transgresses the boundary of the panel. The boundaries of the panel border may appear as if they are restraining the contents of the panel from breaking loose into the rest of the page. In "expansion," the panel is not a window on the world, but a container of the world. Count and record instances in the space provided.

**Section 2: Involution:** objects shrink down or fill less space; they become more compact or are embedded in a matrix.  
*Operational Definition:* Code instances in which a matrix (rectangular grouping) of panels is composed of individual, component panels that are uniformly 1.5" X 1.5" (or less) in size. Count and record instances (matrices/groupings) in the space provided.

**Section 3: Circularity**  
*Operational Definition:* Code instances in which the composition of the page and/or panel is circular or semicircular in shape. Count and record these in the provided space.

**Section 4: Boundary Loss:** figure and ground may be considered a continuum. The object tends to merge with the surroundings, with observer and observed not rigorously delineated, with less differential between object and subject.  
*Operational Definition:* Code instances in which the main/primary foreground "figure(s)" (object(s)/character(s)) and ground (environment) are not clearly distinguished from one another. Count and record these in the space provided.

**Section 5: Movement:** the object or environment is in continuous movement, with greater vibrancy and emotion.  
*Operational Definition:* Code the number of "motion lines" or "zip lines" used in each strip/story. A zip line is a line used in comics to convey motion. Be careful not to confuse these lines with "impact lines" (lines used to indicate collision), "odor lines" (lines used to indicate smell) or "sound lines" (lines used to indicate sound). Zip lines convey movement only. Each individual line (continuous mark of the pencil, pen or brush) should be counted and coded in the space provided.

**Section 6: Intensity**  
*Operational Definition:* Because "light" in the comic text is signified by contrast to the darkness created by pencil or ink, intensity of color and light will be coded when the image is rendered in high contrast (solid values with no intermediate tones) and there is (or seems to be) a bright/intense source that is motivating that light. A "halo effect" (light being cast off in all directions) indicates when the source itself is depicted, and a "spotlight effect" (light beaming on one spot) indicates when the source is illuminating another/other object(s) or character(s). Count and record these instances in the space provided.

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**Section 7: Fragmentation.**

*Operational Definition:* Fragmentation should be coded when the image itself, or the series of panels that compose the strip/story, is formed out of various patchwork and disjointed elements that, together, appear like a collage. Count and record the number of strips/stories and images that have a fragmented composition. If both the individual image and the strip it is a part of are fragmented, each should be coded separately.

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**Section 8: Disorganization.**

*Operational Definition:* Disorganization will be coded according to McCloud's (1993: 172) conception of the "nonsequitur" transition. "[T]he non-sequitur ... offers no logical relationship between panels whatsoever". Random imagery is non-sequitur and should be coded as disorganization. Count and record nonsequitur transitions in the space provided.

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**Section 9:**

**1. Oversimplification:** elimination of detail and extraneous elements.

**2. Abstraction**

*Instructions:* For each individual strip/story in a particular year, code the level of detail that best approximates the strip/story by selecting an option from 1-5 (left to right) at the bottom of McCloud's (1993: 51) Picture Plane triangle. Also indicate the number (from the left side of the triangle) that best approximates the level of abstraction in the strip/story (1-5, bottom to top). For example, three hypothetical stories that have been coded might appear as follows: 4/3, 3/1, 1/1. Record these decisions in the space provided below the chart.


**Section 10: Distortion.**

*Operational Definition:* Distortion is coded when characters, objects or environments within the comic text mutate to the extent that their basic structure is shown as being in the process of becoming fundamentally altered by some internal or external force. Count and record each stage in the process of mutation in the space provided.

Note: There must be at least one transition between images for mutation to be coded because one image alone cannot actually show the mutation occurring.

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