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The following article was reprinted in Religion Online after initial publication in Process Studies, Vol. 17, No.1 , 1988.

Patricia Mazzearella, Ph.D. received her doctorate in philosophy from Georgetown University in 1993 after completing her dissertation on the topic: *Can Eternal Objects be the Foundation of a Process Theory of Morality?* She continued to teach and publish at Georgetown University and Providence College.

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The Square Dance of Eternal Objects

by Patricia Mazzearella

Patricia Mazzearella is an instructor of Philosophy and Bioethics at the Georgetown School for Continuing Education. She has published articles in Sign, Medical Dimensions, and Western Poetry. The following article appeared in Process Studies, pp. 1-8, Vol. 17, Number 1, Spring 1988. Process Studies is published quarterly by the Center for Process Studies, 1325 N. College Ave., Claremont, CA 91711. Used by permission. This material was prepared for Religion Online by Ted and Winnie Brock.

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I.

Dance forms are a useful analogy for illustrating the characteristics of eternal objects. These ideal sets of patterns may be represented in a most graphic and satisfying way by a square dance. In this art form, which is the national folk dance of the United States, a process occurs that is dynamic and creative and yet relies on the presence of ideal patterns for its actuality. Whitehead's sense of beauty would surely have been satisfied by the visual variations in the changing squares which are actualizations of many sets of mathematical patterns and possibilities.

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I.

Dance forms are a useful analogy for illustrating the characteristics of eternal objects. These ideal sets of patterns may be represented in a most graphic and satisfying way by a square dance. In this art form, which is the national folk dance of the United States, a process occurs that is dynamic and creative and yet relies on the presence of ideal patterns for its actuality. Whitehead's sense of beauty would surely have been satisfied by the visual variations in the changing squares which are actualizations of many sets of mathematical patterns and possibilities.

In a square dance, each square is comprised of four couples who respond to the directions of a caller. The dance is a process of varying patterns of interaction among the eight people within the

square and occasionally among sixteen people in two squares, thirty-two people in four squares, and soon. No one knows the pattern to be danced in the next minute until the caller sings the call. The creating and creative process is like a kaleidoscope: each new pattern actualized by the dance comes from, includes, works into itself all former patterns and anticipates all future patterns within the dance occasions.

The caller almost always (unless planning to teach a new design) sings a call known to everyone. But each time it is danced, it begins from a new position, that is, the dancers are coming into the new pattern from a different pattern than that in which they began the last time they heard it called. In addition, the dancers will have rotated positions, changed partners, and begun from different positions in relation to each other.

During the dancing of the major pattern, the interaction among the two, two and four, four and six, two and six, four and eight, and so on, is in continual variance. And even these variations within the pattern differ according to whether the caller is calling in East Coast or West Coast style, Appalachian or formal tradition, or whether he or she is experienced in working with the patterns. If the caller is not experienced, some of the patterns will abort and dancers end up walking around unconnected and confused because the internal relationships of the developing form have been misdirected. This does not follow Whitehead's thought precisely, as he would say that internal relationships are a result of prehensions which are not directions, but this objection will be considered later.

Viewers of the dance also are related to it as the visual patterns become part of their memory from observation and as the costumes and personalities of the dancers are experienced in the initiating of varying new patterns of pleasurable or unpleasurable response.

Most dancers know 300 to 4(n) calls, each of which is a pattern comprised of between 2 and 64 steps to be danced per minute. Because of the variations possible, every dance is a new creation in the interaction of the dancers; the internal relations are never the same. Even if a particular pattern of major complexity were attempted with the same people, the same calls in the same order, the same costumes, the same caller, and so on, there would be no way to guarantee that it could be danced in exactly the same pattern. If it were merely a matter of external relations, that is, relations between patterns within patterns, perhaps such exact repeatability could be accomplished. But it isn't. The timing could be made close, but not exact. The agility of each dancer would be better or worse than the last time or the time before. So, while the major pattern, that is, the calls as they are in themselves and as they relate to each other sequentially during the whole dance may be the same from dance event to dance event, the individual instantiation (actual occasion) will be different in that a new creation is displayed by the interaction of the dancers in the

uniqueness of the occasion.

The difference in the pattern display might be unnoticeable to most observers. They are often in the prehensions of the dancers themselves. Such information as the fact that dancer P forgets his right from his left occasionally will be prehended, at a subconscious level most likely, by his corner dancer Q. It is a prehension in that it is an integral part, a necessary causal relation, which results in a new aspect of the pattern. Dancer Q will then modify the pattern between them by reaching first for dancer P's right arm when the call requires a right allemande instead of waiting for him to meet her halfway. If she were to wait for the period of his hesitation, the timing of the next step would be delayed also. So she will modify her response in the immediate relation to dancer P as well as in subsequent relations. The adaptation to his hesitation then creates a new subpattern between them.

This simple analogy shows all of the characteristics of an eternal object as it is displayed in an instantiation. Since an eternal object is that pattern which brings value or intrinsic reality to an event, it gives the happening an end by making the event an end in itself. As a pattern, a form can also be classified teleologically, that is, according to its ends. First, it is for-itself in that it has an individual essence that is not dependent for its makeup on any other pattern. Second, it is for-others in that it forms the actual occasion by ingression. Third, it is for-the-whole of all relations, the totality of both possibility and actuality in that it has internal relations (of segments of the pattern during the instantiation as it ingresses in actual occasions) and external relations (to, in the close perspective, some other eternal objects). The result of these further relations to other eternal objects is the expression (and, perhaps, formation) of yet another more complex eternal object. This hierarchy of complexity continues until the one most complex unity is reached. This is not a formation of completely novel patterns, but rather of increasingly complex unities of eternal objects in novel patterns of external relatedness.

II.

Before we can explore how the square dance can help us understand eternal objects, we need to examine their nature in some detail. This section will catalogue ten characteristics which specify an eternal object, while the next will show how these characteristics are illustrated in the dance.

I) Potentiality/possibility.

In any occasion of cognition, that which is known is an actual occasion of experience, as diversified by reference to a realm of entities which transcend that immediate occasion in that they have

analogous or different connections with other occasions of experience. (SMW 158)

Kraus explains this as part of the relational essence of an eternal object which includes "the indefinite plurality of relations which constitute the status of the eternal object in the realm of possibility" (ME 34).

2) Formality.

"Eternal objects inform actual occasions with hierarchic patterns . . ." (SMW 174).

Kraus says that eternal objects "form the patterns structuring concrete fact" and "the forms structuring the togetherness of data into a datum of experience -- eternal objects in Whitehead's language -- are given for all times in ordered, intelligible, interrelated sets like mathematical systems" (ME 30).

3) Relationality.

But no individual essence is realizable apart from some of its potentialities of relationship, that is, apart from its relational essence. But a pattern lacks simplicity in another sense, in which a sensum retains simplicity. The realization of a pattern necessarily involves the concurrent realization of a group of eternal objects capable of contrast in that pattern. The realization of that pattern is through the realization of this contrast. (PR 115/175f)

Kraus says that "insofar as eternal objects are related as foci of their internal relations, these relational patterns are uniform schemes -- matrices of relations demanding of their relata only that they have the characteristics pertinent to their particular position in the scheme" (ME 34).

4) Uniqueness.

Further, the essence of an eternal object is merely the eternal object considered as adding its own unique contribution to each actual occasion. This unique contribution is identical for all such occasions in respect to the fact that the object in all modes of ingression is just its identical self. But it varies from one occasion to another in respect to the differences in the modes of ingression.

Thus the metaphysical status of an eternal object is that of a possibility to an actuality. (SMW 159)

Kraus does not comment on this point, but its meaning is relatively clear. An eternal object as an abstract possibility has not come to reality until instantiated in the actual occasion. It becomes part of the occasion in a way that no other eternal object can while, at the same time, retaining its own mode of relating.

5) An element of associated hierarchy.

Following a complex description of the nature of associated hierarchy, Whitehead says, "This associated hierarchy is the shape, or pattern, or form, of the occasion in so far as the occasion is constituted of what enters into its full realization" (SMW 170).

Kraus elaborates on this:

In their joint embodiment in the occasion, they relate the entire realm of eternal objects in ascending degrees of complexity to this base, thus providing the inexhaustible intelligibility of the event, its conceptual structure. (ME 36)

6) Renders decision possible.

Thus the metaphysical status of an eternal object is that of a possibility for an actuality Every actual occasion is defined as to its character by how these possibilities are actualized for that occasion. Thus actualization is a selection among possibilities. (5MW 159)

Kraus says that "realization therefore implies decision -- the selection of relevant eternal objects to be embodied and the rejection of others" (ME 32).

7) Pattern.

"An event is the grasping into unity of a pattern of aspects" (SMW 119).

Kraus explains this: "any actual entity as an event is a patterned interfusion of all other events and that eternal objects are the abstract patterns making that interfusion possible" (ME 31).

8) Ingression.

"... an eternal object can be described only in

terms of its potentiality for 'ingression' into the becoming of actual entities . . ." (PR 23/34).

Kraus elaborates:

Each occasion is essentially social, creating itself out of the data contributed by other realized occasions, each of which is itself (has its own unique associative hierarchy), but creates that self out of the contributions of still others. Each occasion, therefore, is set in the midst of a course of interlocked events which it appropriates and orders from its vantage point through the ingression of relevant eternal objects . . . (ME 39)

and

Eternal objects, therefore, 'ingress' into (enter into the constitution of, become ingredient in) the process of realization which culminates in the synthesis of possibility and actuality into a concrete, fully determinate value. (ME 31)

9) Repeatability.

In the organic philosophy the notion of repetition is fundamental. The doctrine of objectification is an endeavor to express how what is settled in actuality is repeated under limitations, so as to be 'given' for immediacy. (PR 137/208)

It is also an attempt to explain how 'intrinsic essence' lends value to an event:

Empirical observation shows that it is the property which we may call indifferently retention, endurance, or reiteration. This property amounts to the recovery, on behalf of value amid the transitoriness of reality, of the self-identity which is also enjoyed by the primary eternal objects. The reiteration of a particular shape (or formation) of value within an event occurs when the event as a whole repeats some shape which is also exhibited by each one of a succession of its parts. (SMW 104)

Kraus explains this repeatability of eternal objects as the basis for enduring objects:

In all cases, it (an eternal object) gives the metaphysical groundwork for the inheritance of

the past by the present and for the endurance of the objects of experience. Both what is inherited in a causal chain and what 'endures' in a life history are eternal objects, either qualia (or subjective forms in the language of PR) or overarching value structures (i.e., defining characteristics). (ME 32)

10) Independence of space/time.

Every scheme for the analysis of nature has to face these two facts, change and endurance. There is yet a third fact to be placed by it, eternity, I will call it, The mountain endures. But when after ages it has been worn away, it has gone. If a replica arises, it is yet a new mountain. A color is eternal. It haunts time like a spirit. It comes and it goes. But where it comes, it is the same color. It neither survives nor does it live. It appears when it is wanted. The mountain has to time and space a different relation from that which color has. In the previous lecture I was chiefly considering the relation to space-time of things which, in my sense of the term, are eternal. It was necessary to do so before we can pass to the consideration of the things which endure. (SMW 86f)

and

The things which are temporal arise by their participation in the things which are eternal. The two sets are mediated by a thing which combines the actuality of what is temporal with the timelessness of what is potential. (PR 40/64f)

And, again, "the metaphysical status of an eternal object is that of a possibility for an actuality" (5MW 159). It is form, a noninstantiated pattern which is partially determinate. Kraus elaborates on this point:

Fact is essentially temporal, involved in a time sequence; form is essentially atemporal, a visitor in time but unaffected by its sojourn. . . . Form, on the other hand, retains its intelligibility and its character when not exemplified in facts. It has the mode of being of a possible. (ME 29)

III.

Returning to the square dance analogy, it is possible to look more closely at the eternal objects of the calls as instantiated in these dance formations. The dance itself which can be called D_n is the actuality which is the realization of the pattern according to the

S_n sequence in which it is danced. It is a particular pattern composed of X_n calls in Y_n extension of space with a duration of Z_n . If D_n were X_5 calls in Y_6 extension of space with a duration of Z_7 , and if the sequence S were the same, the major pattern (D_n) consisting of X_5 calls in the sequence S_1 would comprise the pattern. This same pattern could be instantiated, or realized, in Y_8 or Y_9 extension of space and Z_7 or Z_{14} duration. The variations here are obvious. The potentiality of actualizing in D_n , the pattern of X_5 calls in sequence S_1 is $(Y_n + Z_n)n$. In other words, there are at least as many variations in the possibility of realization of the basic pattern as there are possibilities of the variations of space extension and time durations in which the pattern may ingress. Other variations depend on the prior internal relations, the external relations between patterns, and on the nature of the particulars which make up the process.¹

Let us take, then, the basic pattern of X_5S_1 as the eternal object which is potential until the dance being called brings it to realization in D_n dancers. It is formal in that, without it the dancers would be still, quiet, without any ongoing relation to each other and to the dance as a whole as well as to all other dances, and soon. They would aimlessly or with new purpose informed by other patterns move away from the square taking on other extensions of space -- talking with friends, pouring coffee, picking up coats to go home. The pattern of the calls is what brings value or intrinsic reality to the event making the dance what it is, an actual occasion which has itself for an end.

So, the teleological aspects of an eternal object are clearly exhibited in the analogy of the square dance. The end-for-itselfness of the potential D_n pattern is indicated in that X_5S_1 can be called in Los Angeles, Chicago, or Nashville for children or teens or adults, for dancers of any combination of abilities. It can be called at half speed for new dancers or triple speed for those who want a challenge. Yet in all these instances it still remains X_5S_1 .

The characteristics of potentiality/possibility (1), formality (2), unique individuality (4), pattern (7), and independence of space/time (10) are displayed and can be seen from this focus. Potentiality/possibility and formality are present in the fact that without the dancers and the music, the X_5S_1 pattern has no actuality. It is merely a set of relationships between different directions for movements and it has only an ideal form until it is vocalized, heard, responded to. It is empty until the dancers supply the content. The possibilities for content are signified by $(Y_n + Z_n)n$ as well as by the variations in dancers, costumes, music available, callers, and so on. But X_5S_1 does not need $(X_5 + Z_n)$ to remain X_5S_1 .

If X_5S_1 is to display itself in its for-otherness aspect, the process of gaining actuality will bring into play the second set of characteristics: non-unique relational essence (3), element of associated hierarchy (5), rendering of possibility of decision (6),

ingression (8), and repeatability (9).

First, the caller selects pattern X_5 rather than X_6 or X_7 or X_8 . In order to put the sequence together so that it can be danced, he chooses the calls named 'daisy chain,' 'ocean wave,' and 'grand square.' He decides not to use 'load the boat' and 'half tag.' As each of these calls is a subpattern in itself, the caller has chosen the particular sub-patterns applicable and arranged them in degree of importance for the dance. Their associative hierarchy is not, of course, dependent on the caller's decision. It is determined by the possibility inherent in their potential relations with all the variables inherent in the actual occasion. The fact that only certain sets of these relations between calls will form a dance which continues without interruption accounts for the non-unique relational essence. The internal consistency of the pattern lies in the fact that the caller cannot call both 'daisy chain' and 'load the boat' if a workable pattern is to be executed.

That aspect of the eternal object which is its for-the-world perspective is also indicated by the characteristics of non-unique relational essence (3), element of associative hierarchy (5), pattern (7), and repeatability (9). In our analogy, the pattern X_5S_1 is related to all other $X_n S_n$ patterns in the square dance realm (as analogous to the concrete world). The decision on the relevance of the patterns is determined by the level of ability of the dancers, the size of the group, the size of the dance floor, the music available, and so on. $X_n S_n$ patterns are weighed against each other for positive or negative relevance, that is, suitability to the particular dance specified as $(Y_n + Z_n)n + (A_n + B_n + C_n \dots N_n)$.

So, in this particular dance, the pattern of five specific calls (X_5) is to be executed in the sequence of 'right allemande,' 'left allemande,' 'daisy chain,' 'ocean wave,' and 'daisy chain' (S_1). (A different set of calls might be X_8 and a different sequence of the same set might be X_5S_2). The particulars are Y / space and Z / time as well as A / ability of the dancers, B / music, C / location in the country, D / size of the group, and so on. An X_5S_1 pattern might work well if called at normal speed (Z_1) for a group of six squares on a large dance floor (Y_1) when the dancers are at an advanced level of ability (A_1). If there were twenty squares on the same size dance floor (Y_2) and the dancers were of intermediate ability (A_2), the caller would need to weigh that in any choice of calls. The pattern chosen might then be X_3S_2 to be called at half speed (Z_2).

The repeatability characteristic is exhibited in the fact that, even though the circumstances may change, the X_nS_n pattern will be included in the possibilities and weighed each time for positive or negative suitability in the new dance process. It is sometimes the case that X_5S_1 , for instance, is sung by a caller on two different evenings to two different musical backgrounds. It is never the same dance, but it is a repetition of the pattern in a non-unique relational essence.

Although it offers a graphic understanding of the characteristics and teleology of Whitehead's eternal objects, the square dance analogy could be said to fail beyond this point. It appears to have a mechanistic aspect in that the caller makes decisions which are weighed in his or her limited, human mind. In ingression, it is the nature of the eternal object as hierarchically related to all other eternal objects and as it is in itself which lures the particulars of the actual occasion in process as it informs them. This formation process of the actual entity by ingression of one or more related eternal objects is self-creative rather than other-directed.

It may, however, be possible to answer this objection by saying that the lure of the most appropriate eternal object or set of appropriately eternal objects for the present actual occasion is itself an eternal object, one in process as are the relationships of rational thinking itself. It is the subjective form with which that eternal object is prehended. This leads to a modification of Whitehead's notion of eternal objects, one in which the subject/object distinction is overcome even at the initial level of formation. The possibility of such a notion has been implied in this paper, but the development will be left to another time.

References

ME -- Kraus, Elizabeth. The Metaphysics of Experience: A Companion to Whitehead's Process and Reality. New York: Fordham University Press, 1979.

SMW---Whitehead, Alfred North. Science and the Modern World. New York: The Free Press, 1925.

Notes

¹For clarification, designations are as follows.

D_n -- actual occasion: dance pattern as instantiated whole with X_n, Y_n, Z_n in S_n .

$X_n S_n$ -- eternal object: specific calls, specific number of calls, specific sequencer – potential dance pattern.

X_n -- specific number and designation of calls: one set of relations in the potential dance pattern (EO).

S_n -- specific sequence: another set of relations in the potential dance pattern (EO).

Y_n -- extension of space in pattern instantiation.

Z_n -- extension or time in pattern instantiation.

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