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Imposed Environments: The Important Role of Fortuitous Intersections

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Abstract

Scholars in self-directed and autonomous learning typically have adopted an agentic perspective of these phenomena that includes the characteristic of forethought; however, unanticipated fortuitous intersections with imposed aspects of the environment can catalyze such agency thereby influencing entire life trajectories. The purpose of this article is to discuss the role of fortuitous intersections in order to further our understanding of personal agency as manifest in learning.

Keywords: autonomous learning, social cognitive theory, fortuity

1. Introduction

Historically, scholars in self-directed and autonomous learning (e.g., Bouchard, 1994; Brockett, 1985; Candy, 1990; Chene, 1983; Confessore & Confessore, 1994; Garrison, 1989; Guglielmino, 1977; Hiemstra, 1994; Jarvis, 1992; Knowles, 1975; Long, 1989; Mezirow, 1985; Redding & Aagaard, 1992) have adopted perspectives through which to interpret these phenomena that include tenets consistent with agency theory such as control and choice. In general, human agency has the following characteristics: (a) *forethought* is enlisted to prioritize desirable outcomes, establish goals, and create plans to satisfy personally realized needs; (b) subsequent action is then characterized as being *intentional*; (c) the agent *self-reacts* to cognized plans and engages in action; and (d) the agent *self-reflects* upon the consequences of the action to both extract meaning and decide upon further action (Bandura, 2006). Using this conceptual framework, the autonomous learner uses forethought to ideate learning goals and activities believed to lead to desirable outcomes; intentionally reacts to this cognition by choosing to select/create and participate in learning activities; and reflects upon the consequences of these activities thereby resulting in learning that influences future

learning with respect to both the interpretation of new knowledge, skills, or attitudes as well as the design of subsequent learning activities (Ponton, 2009).

This perspective is seemingly devoid of the environment; that is, this description suggests a bidirectional, cognitivistic relationship between person (i.e., beliefs, attitudes, and intentions) and behavior (cf. Fishbein & Azjen, 1975). However, the environment plays a crucial role in (a) developing within the agent comparative value of possible outcomes and, thus, pursuits; (b) informing percepts of self-efficacy that influence the motivation to choose, participate, and persevere in given pursuits; (c) providing opportunities as well as limits to personal agency; and (d) facilitating intersections of information—intended or imposed—that the agent uses to decide courses of action (Bandura, 1986). In addition, the agent influences the environment by objective alteration (i.e., intentionally via purposeful change or unintentionally via how others react merely to the agent's presence) or subjective interpretation (i.e., the environment takes on meaning via the agent's perspective).

Beginning at birth, the life trajectories of people begin their unique courses. Not only is there fortuity—that is, occurrences due to chance rather than intention—in initial conditions (i.e., there was no agency on the part of the neonate to choose either the characteristics of the immediate environment or personal physical/mental state/capacities) but also in future conditions due to unintended intersections with imposed environmental aspects. Although personal agency exerts a determinative influence throughout an entire existence, personal paths are anything but deterministic (Bandura, 1982). The importance of considering fortuitous intersections rests in the notion that the lives of people, which are easily observed to vary considerably, cannot be understood by merely modeling agency as a proactive force; humans agentically react to unintended environmental happenings. Thus, agentic responses to fortuitous beginnings and happenings result in unique lives (Bandura, 1982).

Reciprocal determinism, as modeled by triadic reciprocal causation, recognizes that human functioning represents an interplay between person, environment, and behavior (Bandura, 1986). All three factors interact in personologically and situationally time-dependent ways thereby resulting in unpredictable life courses between people with one aspect of this unpredictability due to fortuitous happenings. However, a mere understanding of fortuitous intersections cannot explain human functioning in a manner that supports environmentalism. Such intersections must be recognized as factors that can influence a person's agentic response that then operates reciprocally to influence the environment, the person, and the chance of future fortuitous intersections with their own consequences. In this regard, fortuitous intersections may be understood as both proactive causes and reactive effects of human agency (cf. Bandura, 1998). The purpose of this article is to discuss the role of imposed environments as manifest in fortuitous intersections in order to further our understanding of agency in learning.

1.1 Modes and Environmental Manifestations of Personal Agency

The exhibition of personal agency in one's chosen pursuit does not necessarily limit activity to social isolation; others may be involved to varying degrees. Hence, personal agency may be manifest through three modes: collective, proxy, or individual (Bandura, 2006). Personal

agency via the collective mode occurs when an agent decides to enlist the assistance of others and works with them in determining an activity that can accomplish the agent's goal. Proxy agency occurs when the agent enlists the help of others and allows them to act independently in determining an activity that supports the agent's goal. Individual agency occurs when the agent acts alone in determining an activity. In all three modes, however, personal agency is still the catalyst for action; that is, it is the agent who engages in forethought, intentionality, self-reaction, and self-reflection with respect to the particular mode of agency invoked for their chosen purpose (Bandura, 2006).

Reciprocal determinism suggests that environmental aspects can be manifest in three forms: created, selected, or imposed (Bandura, 1997). Created aspects are features that did not exist until the agent created them; for example, a learner can create a learning activity that includes a goal, plan (includes the selection of resources, method for interaction with the resources, and contingencies to manage impediments), participation, assessment of learning and satisfaction, and adjustment based upon the assessment. The learning activity is environmental because an observer can witness the learner engaging in the activity; that is, there is an objective manifestation. Conversely, an agent can intentionally select aspects of their environment from those that already exist; for example, a learner can select from a multitude of already created learning activities such as college courses. Imposed aspects refer to environmental features that are not the result of personal agency in selection or creation; that is, features that are—with respect to the person—unintended and, thus, fortuitous. Although the intersection between the person and the environmental aspect is fortuitous, subsequent action with respect to the imposed aspect is governed by personal agency (Bandura, 2006) in that the person acting as an agent can choose how much attention to provide to this aspect and whether or not to select or create activities as a response.

Using both the mode of agency invoked as well as the environmental agentic action, Figure 1 presents a matrix of possible agentic manifestations with cell descriptions as follows:

		MODE OF PERSONAL AGENCY		
		Collective	Proxy	Individual
ENVIRONMENTAL ACTION	Select	1	2	3
	Create	4	5	6

Figure 1. Six Possible Manifestations of Personal Agency with the Environment.

Cell 1. An agent enlists the help of others and works with them to select from the environment an existing activity that the agent anticipates will lead to a personally desirable consequence.

Cell 2. An agent enlists the help of others and allows them to select from the environment an existing activity that the agent anticipates will lead to a personally desirable consequence.

Cell 3. An agent works alone to select from the environment an existing activity that the agent anticipates will lead to a personally desirable consequence.

Cell 4. An agent enlists the help of others and works with them to create a new activity that the agent anticipates will lead to a personally desirable consequence.

Cell 5. An agent enlists the help of others and allows them to create a new activity that the agent anticipates will lead to a personally desirable consequence.

Cell 6. An agent works alone to create a new activity that the agent anticipates will lead to a personally desirable consequence.

When the context for the activity is learning, the agent who participates in the learning activity can be described as an autonomous learner (Ponton, 2009). That is, the agent is exhibiting autonomy in choosing to either select or create a learning activity with or without the help of others; after selection or creation, learning occurs through participation. Examples of the varied manifestations of autonomous learning are as follows:

Cell 1. A teenager chooses to work with their parents in order to select a given university and program of study.

Cell 2. After enrolling in a university's program, a student allows a faculty member to prescribe the curriculum from existing courses.

Cell 3. A person with an interest in photography selects a short course offered by a municipality.

Cell 4. A mechanical engineer with an electronics problem chooses to work with an electrical engineer in order to identify required learning topics and reference books.

Cell 5. A manager hires an educational consulting firm to conduct a needs assessment and create a custom series of training modules.

Cell 6. A person with an interest in Egyptian pyramids identifies a book, reads it, and assesses personal satisfaction with the resultant learning.

In this regard, *agentic learning* is synonymous with *autonomous learning* in that the latter is the result of personal agency as manifest in learning (Ponton & Rhea, 2006).

1.2 Self-Directed Learning

As a special case of autonomous learning, self-directed learning (SDL) refers to cell 6 (see Figure 1); that is, the self-directed learner chooses to individually create (i.e., decide upon) all aspects of the learning activity as previously described (i.e., the goal, plan, assessment, and adjustment; Ponton, 2009). Only in this regard can the learner be described as self directing the learning. This does not mean that the SDL activity must occur in social isolation; it may not if the self-directed learner identifies others as learning resources (i.e., sources of information). This classification merely recognizes that it is the self-directed learner who acts as an agent in choosing to individually create all aspects of the learning activity. If the

self-directed learner chooses others as learning resources (similar to nonhuman sources of information such as books), this does not reduce the learner's total control over choosing, designing, and participating in the activity.

Following this assertion, a learner who participates in a course in which the instructor facilitates aspects of self-direction in a learning activity is not engaged in a SDL activity; that is, SDL requires the learner to choose to create the learning activity as a result of personal agency, which means that it is at the learner's discretion to do so. If an instructor requires a student to create a goal, plan, assessment, and perhaps adjustments subsequent to participation—that is, create and participate in a learning activity—the instructor is still in control of the activity because the activity is the result of the instructor's agency as a teacher rather than the student's as a learner.

Of course there can be episodes of SDL when one takes a course. A recurring situation is when a student encounters a concept of unfamiliar meaning. In response to this situation, the student can choose to individually create and participate in a learning activity—no matter how brief—with a goal (i.e., understanding), plan (e.g., use a dictionary), participation (e.g., read), assessment (i.e., satisfaction with resultant learning), and adjustment (i.e., if not satisfied, develop a new plan; e.g., conduct an Internet search). In this situation, the student has invoked personal agency to engage in self-directed learning and has chosen to exert complete control over creating and participating in a learning activity in which they direct all aspects.

This description of SDL suggests that it is categorical; that is, SDL does not exist on a continuum. When direction—no matter how slight—is provided by another, then the activity is no longer SDL; the activity is still an autonomous learning activity provided it is the result of the learner's personal agency. On the contrary, self-directedness—a person's predisposition to engage in SDL—does fall on a continuum (Brockett, 1994) as the propensity to engage in SDL varies personologically (i.e., dependent upon the person's characteristics) and situationally (i.e., dependent upon the topic, urgency, and available means). Similarly, autonomous learning is categorical, and learner autonomy is continuous.

The present description of SDL does not presume that it is essentially better (i.e., more efficient or effective) than other types of autonomous learning activities in any overall sense. This description is merely a classification of a particular learning phenomenon. Optimal learning can and often does occur when others with more knowledge or skill are purposefully given control over directing aspects of the learning activity; "everyday functioning requires an agentic blend" (Bandura, 2006, p. 165). There is also value in learning that occurs nonagentically. However, a high level of self-directedness does offer one important benefit: in the absence of others who could provide direction, learning—at least to some degree—can still occur. Thus, a high level of self-directedness enables a person to continually develop along intentional trajectories when others are not available to provide any direction no matter how slight.

2. Discussion

2.1 Types of Fortuitous Intersections

Imposed environmental aspects create fortuitous (i.e., unintended) intersections between a person and the environment. For example, a person might encounter a stranger at a coffee shop that leads to conversing, dating, marrying, and redirecting an entire life's trajectory from a direction that would not have occurred if the person had forgone or even slightly delayed the coffee shop visit. In this example, the only initial agency invoked was the decision and subsequent action of acquiring coffee at a given place and time. Although the fortuitous intersection was not caused by an autonomous learning event, subsequent agency in learning was exerted in choosing to learn about this unanticipated person via intentional conversation and dating.

Agency plays an important role in increasing the opportunities for fortuitous intersections to occur. An agent who intentionally engages with the environment through varied activities creates opportunities for unanticipated occurrences; in contrast, the person who sits at home, does nothing, and waits for opportunity to knock creates little opportunity to fortuitously intersect with new topics, people, or other environmental aspects. As in the previous example, fortuity as manifest in imposed environmental aspects can be the result of personal agency in nonlearning activities; however, once experienced, the agent can then react to these happenings by agentically choosing to learn (see Figure 2, cell 1).

Fortuity can also characterize imposed happenings unrelated to any agency. An example would be becoming ill due to a genetic predisposition. The corresponding imposed environment would include the initial physician's visit, diagnosis, subsequent visits, treatments, or lifestyle changes. Despite no initial agency in causing the fortuitous intersection, the response to such fortuity may be an agentic decision to engage in learning in order to cope with the malady (see Figure 2, cell 3).

Cells 1 and 3 (see Figure 2) describe situations that occur *before* the agent decides to engage in a learning activity with such events influencing subsequent decisions to engage in autonomous learning. Such events are often referred to as triggering events as they can trigger or catalyze learning. In contrast, fortuitous intersections can also occur *after* an agent decides to engage in learning (cells 2 and 4 in Figure 2).

After a person decides to learn about a topic, they can canvass the learning resources that happen to be available (see Figure 2, cell 4); that is, resources that were not selected from the universe of possible resources but rather are fortuitously present (Spear & Mocker, 1984). Before the ubiquity of Internet-based technologies, the primary household source of information was the paper-based encyclopedia, which was a resource of a seemingly unknown origin as its age could far exceed that of the household's inhabitants. This compendium of information on various topics represented a convenient resource often used exclusively to address myriad questions of personal interest to the great extent that if a question could not be answered via the encyclopedia, it remained unanswered. Hence, the cause of the opportunity for the imposed environmental aspect—the encyclopedia—was not due to the agency of the learner. Despite that such a resource is fortuitously present (i.e., not

intentionally selected and made available for a particular learning event by the agent but was present by chance), the chance of intersecting with the resource was high due to convenience and lack of alternatives.

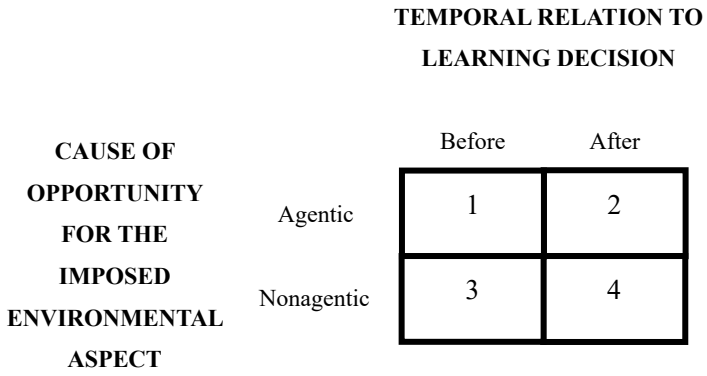

Figure 2. Temporal and Agentic Possibilities Between Imposed Environments and Learning Decisions.

Imposed environmental aspects also include topics or people unrelated to the intended purpose of an autonomous learning activity (see Figure 2, cell 2). In the previous encyclopedic example, once accessed—that is, once personal agency in learning was invoked—the encyclopedia could support a series of searches with subsequent learning events catalyzed by a fortuitous intersection with a topic in a previous search. As a more current example, accessing Internet-based media in pursuit of specific information often leads to fortuitous intersections with topics unrelated to the initial inquiry that spawn inquiry in new directions; in fact, Webpages are often designed to facilitate this dynamic process by not only providing such unrelated topics but also by making associated information easily accessible via embedded hyperlinks. The encyclopedic example is analogous to the Internet-based example; however, the latter has reduced limitations in content (i.e., there is seemingly an endless supply of topics and information in a variety of forms) and access (i.e., smart phones and tablets are easily carried) while increasing the presence of unrelated topics (e.g., a search for one news topic typically leads to Webpages filled with unrelated news topics). An example of fortuitous intersections with both topics and people is when a learner decides to take a course from an institution in order to satisfy a personal interest. By giving control to the instructor in selecting learning resources and to the institution in admitting students and hiring faculty, the learner can fortuitously intersect (and likely does) with unanticipated topics *and* people that can greatly influence future learning and, thus, personal trajectories. In these examples, the cause of the opportunity for the imposed environmental aspect—the new topic or person—was due to the agency of the learner to engage in an autonomous learning activity. Once the fortuitous intersection occurs, it is the learner who then continues to exert personal agency in choosing whether or not, to what degree, and how new learning will occur. This imposed environment becomes part of an environmental potentiality from which the agent creates a personal environment.

2.2 The Continuum of Chance

A typical characteristic of learning is that there will be new (i.e., unknown) topics encountered. When the learning is autonomous (i.e., when the learning activity is chosen by the agent for an intended purpose manifest in the pursuit of a given topic) such new topics can be (a) objectively-related to the desired topic, (b) subjectively-related, or (c) unrelated. Examples are as follows:

- Objectively-related. A study of the life of Abraham Lincoln includes some study of the U.S. Civil War.
- Subjectively-related. A study of higher education administration includes some study of self-directed learning.
- Unrelated. A study of surfboarding includes some study of Abraham Lincoln.

In this regard, the degree of chance in intersecting with a new topic exists on a continuum due to the subjectively-related category; that is, human arguments regarding relatedness can be highly subjective thereby causing included topics to be unpredictable. This can be manifest via seemingly identical learning resources. As examples, the topics covered in similarly titled courses can vary by faculty while those in similarly titled books can vary author; in each case, the arguments of topic relatedness to the title are made by the creator of the learning opportunity. Note, too, that not only is topic relatedness subject to argument but also the extent (with, perhaps, additional topics) to which subjectively-related topics are covered. Exact probabilities of chance based upon subjective arguments are incapable of calculation; thus, the purpose of this perspective is merely to undergird a conceptual model (see Figure 3).

As mentioned, fortuitous intersections with people are also possible during autonomous learning activities. Several examples of opportunities for such intersections are as follows: when selecting a college course section based solely upon schedule, no consideration is given regarding the instructor or other enrollees; in a face-to-face class, seating positions can occur based primarily upon availability; in an online course, students from around the world are able to enroll in the same course. Due to these uncontrolled and, thus, unpredictable arrangements of people with potentially varied backgrounds, resultant intersections between people are fortuitous, and associated conversations represent fortuitous intersections with topics that relate to varying degrees with the intended topic.

In the extreme, relationships are often formed based upon backgrounds and conversations entirely unrelated to the learning activity that brought the people together; in this situation, the fortuitous intersection between the people is characterized as unrelated to the initial topic. For example, there is an extremely low chance that an instructor and a student (who is 20 years younger) participating in a higher education administration program will discuss their fathers' army service that occurred at the same place and time 40 years earlier (which, in fact, did occur). In the objectively-related situation, backgrounds and conversations are aligned with the intended topic; for example, there is an extremely high chance that a mathematics instructor will discuss differentiation with mathematics majors in a calculus course. In the subjectively-related situation, backgrounds and conversations are arguably related to the intended topic; for example, an American history major electively enrolls in an economics

course and converses with an engineering major about the Great Depression. Similar to the previous discussion regarding topics, the degree of subjective relatedness to the initial topic is based upon human arguments; therefore, the degree of chance for fortuitous intersections with people is also represented by a continuum (see Figure 3).

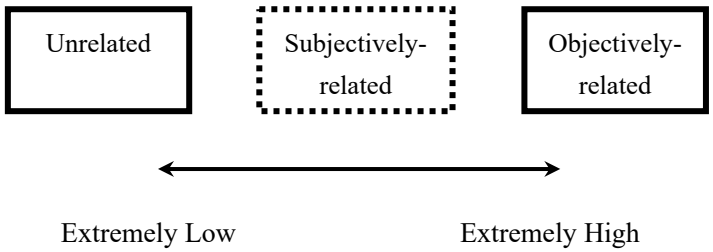

Figure 3. The Degree of Chance of Fortuitous Intersections with Topics and People: A Continuum Based Upon Relatedness to the Initial Topic

2.3 Facilitating Fortuitous Intersections via Autonomous Learning

The greater a person pursues learning in various ways and on various topics, the greater the likelihood that they will intersect with unanticipated topics or people in the environment. Thus, autonomous learning influences pathways to diverse information upon which the learner can exert personal agency in shaping their life in unique ways. An increase of fortuitous intersections increases the choices agents have in directing their respective lives. Thus, strengthening learner autonomy is an essential factor in expanding life's possibilities.

When an autonomous learner chooses to engage in a course, the instructor can play an important role in facilitating fortuitous intersections. By creating a topic rich environment (i.e., an inclusion of many topics subjectively related to the course's focus) and assignments to pursue self-selected interests, the instructor provides not only the seed for divergent growth between students but also the opportunity for individually chosen growth among students. The concomitant control and resultant personal satisfaction in such self-selected pursuits strengthens learner autonomy by building efficacy and motivation thereby resulting in students becoming agents of their own development. By strengthening students' learner autonomy, they are able to increase the likelihood of more fortuitous intersections in other self-selected learning endeavors.

Instructors can also facilitate fortuitous intersections between people. Although discussion as well as team and group activities are typically used to support instruction, resultant interactions provide opportunities for students to converse with others—students or faculty—on matters that have varying degrees of relatedness to the course's topic. Such interactions can spawn relationships that transcend the course in both topic and time.

3. Conclusion

Extant conceptions of human agency adopt a goal-directed perspective: the agent selects a

goal, decides how to reach this goal, acts toward reaching this goal, evaluates progress, and corrects action if deemed necessary. When the goal is a learning goal, the agent engages in (some form of) autonomous learning. The existence of fortuitous intersections with topics, people, or other environmental happenings is not antithetical to this agentic description.

However, fortuitous intersections must be considered in order to understand the variability between the specific goals adopted by different people thereby resulting in different lives. In this regard, fortuitous intersections with imposed environments offer branching points in a life's trajectory. Such intersections provide information that is individually considered when choosing the next goal to pursue. Thus, agency is invoked as a response to such chance environmental happenings. Agentic responses then create opportunities for new fortuitous intersections to occur with their own possibilities as branching points. Hence, fortuitous intersections manifest as both causes and effects of human agency.

In order to understand the lived experience, one must not only understand the important determining role that human agency plays but also the information upon which such agency is invoked. In this regard, agentic determinism does not mean that lives are deterministic due, in large part, to unintended, fortuitous intersections with environmental impositions. Self-reflection of one's personal narrative will likely provide supporting evidence for this assertion.

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