



Game as a career metaphor: A chaos theory career counselling application

Journal:	<i>British Journal of Guidance and Counselling</i>
Manuscript ID:	CBJG-2007-0080.R2
Manuscript Type:	Original Article
Keywords:	game, metaphor, chaos theory of careers, career counselling



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Traditionally scientific explanation has been dominated by two types of reasoning: deduction (hypothesis testing) and induction (generalisation from observation). However, the limits of positivist accounts of reality have become increasingly obvious as we attempt to deal with complexity, connectedness, systems, changeability and chance (Robson, 2003). The rise of the use of metaphor as an explanatory tool is an instance of analogical reasoning sometimes referred to as “abduction”. Of course humans have always sought to understand one phenomenon by reference to another about which we know more. The sheer volume of metaphors in career development discussion amply testifies to this (Inkson, 2007). Somewhat surprisingly with the widespread interest in metaphors in career development theory and counselling (Amundson, 2004; Inkson, 2004 & 2007; Savickas, 1997) career as a game has not been often included. By game here is included most sports and entertainment pastime activities such as cards, dice games, board games, computer games, knowledge and memory games. This omission may be even more extraordinary since sport holds such a prominent place in much of the popular culture of many nations. The closest intrusion that the game metaphor has had into career development is that of life coaching. This obviously works on a level of game as sport. It illustrates that metaphor can be useful not only as a way to understand the individuals’ career narratives (Pryor & Bright, submitted) but also the nature of the counselling relationship. Moreover this could be easily extended from counsellor as coach within a sporting context to counsellor as:

1. fitness trainer – preparing individuals for major career events such as job interviews;
2. personal manager – negotiating administrative and financial arrangements as in rehabilitation job advocacy; and
3. sports psychologist – addressing motivational and adjustment issues such as continuing a difficult job search;
4. team doctor – advising on lifestyle and health issues and assisting in recovery of personal functioning, for example, in retraining for workforce re-entry after domestic duties; and
5. team captain – leading by example and making decisions in “the heat of the game battle” as in sharing personal experience for modelling purposes in counselling.

This paper seeks to explore the heuristic and counselling potential of “game” as a career metaphor. In doing so, this metaphor will be linked with a chaos theory approach to careers as a framework for conceptualising career development challenges and strategies for career counselling. Chaos theorists in general, have used game theory in seeking to understand and communicate concepts regularly in the past (Lewin, 1999; Waldrop, 1992).

Metaphors are figures of speech in which one image or concept takes the place of (is used to describe) another image or concept. They are so much a part of everyday communication that we hardly recognise them as figurative or metaphorical. Metaphors generally abound in career development literature and occupation – based communication. Obvious examples include the career path, the glass ceiling, the ladder

of success, the golden handshake, telling one's story, the rat race, a cog in a machine, a team player, the corporate giant, wallowing in success and so on. McMahon (2007) helpfully summarises the uses of metaphor in career counselling as:

1. building relationships;
2. guiding communication; and
3. facilitating change.

By identifying, utilising and transforming metaphors counsellors in collaboration with their clients can assist individuals to a deeper understanding of expectations, relationships, aspirations, values, personal identity, meaning and mattering.

An illustration using the metaphor of the game can exemplify career counselling potential of this metaphor. Clients often come to counsellors frustrated that their expectations have not been fulfilled. They had planned out their futures, had developed strategies for their implementation, perhaps even budgeted on the basis of anticipated income levels and financial commitments. Then something has happened which confounds it all – retrenchment, illness, change in market conditions and so on. After dealing with the affective aspects of such reactions, counsellors may seek to help their clients adjust their expectations about how the world actually operates as a basis for developing more realistic expectations and contingency plans for dealing with the limitations in our ability to predict the future.

Elsewhere (Bright & Pryor, 2005; Pryor & Bright, 2006) we have suggested a parable approach to complexity as one way to approach this issue. Alternatively however a counsellor might do so by invoking the metaphor of a game in the following terms.

Imagine you are one of six players in a game of cards. One player shuffles the cards and then deals them out to each other player. Each player plays each point to the end of that hand. All the cards are collected into a deck once again. There is nothing special or unusual about this series of events. However, what if the same dealer shuffles the cards into exactly the same order as in the previous hand. Then of course that same dealer would give each player exactly the same cards as they each had in the previous hand. Now what if each played his or her cards exactly the same way as they had done in the previous hand with, of course, exactly the same outcome. So now there have been two identical sets of cards dealt and played in exactly the same way. Even though such a happening may be extremely unlikely in real life, it is just possible. So the question put to the counselling client is: are the two hands as dealt and played, identical events? Are they exactly the same? On first thought, we may want to answer affirmatively. It appears superficially that there has been no change from the first hand to the second hand. However, deeper reflection will cause us to realise that there is a crucial difference between the two events. The difference is not in the cards but in the players. For whatever reason when the six players play their cards the second time around they do so knowing that the previous hand was played exactly the same way. This insight may cause us to interpret the behaviour of the players in the second hand very differently from their behaviour in the first hand. This difference may be subtle but it may also be significant and at times, even crucial.

What does this tell us about our expectations about how the world, and our career works? The basic point is that even though we are taught aphoristically that

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“history repeats itself”, this insight may be generally true but it is specifically false. The past cannot exactly repeat itself because the experience of the previous events inevitably impacts succeeding events. Another way of saying this is that all human experience is contingent. No matter how compelling the causal chain of preceding events is, what happens next is always unique. It is always only one out of a set of possible outcomes. Why does this insight matter? It confounds human expectations that we can have enough perspicacity and power to control our futures. It is simply unreasonable to believe that the way the world was yesterday is the way it will necessarily be today or tomorrow. Therefore not taking into account the contingent nature of human experience in our thinking and our planning is ultimately setting ourselves up at some point for frustration, disillusionment and even despair.

Of course, this may not be a palatable truth for clients who just want to find out what career they are “best suited to”, but it is a perspective that is likely to stand them in good stead when confronting the career development realities of complexity and change: realities which the Chaos Theory of Careers identifies as the major contemporary career challenges.

Chaos Theory’s Career Challenges

The Chaos Theory of Careers has been adumbrated on a variety of occasions (Pryor & Bright, 2003a,2003b, 2007a,2007b). As an holistic conception of careers focusing on complexity (the multiplicity of potential influences on career), change (the susceptibility

of human experience to unpredictable, non-linear, phase shifts) and interconnection (a systemic understanding of reality) the individual is viewed as a complex dynamical system and career is the emergent pattern derived from individuals' specific interconnections with the world of education, training and work.

The Chaos Theory of Careers (CTC) draws attention to complexity and change as the major challenges for career development. The challenge of complexity for career decision makers is that of cognitive overload. Put simply, none of us can ever know all that could or even should be known if we are trying to guarantee a successful outcome for our decision (Gellatt, 1991). The contingency of human experience is a function of only one outcome actualising from a range of possibilities some of which we can predict as likely, some of which we can conceive as possible and some of which we cannot even imagine. The reality of human experience is that we are all the time, making decisions with quite incomplete knowledge. Once this is recognised as inescapable then it may transform our expectations about outcomes and reshape our decision making strategies. The second major career development challenge to which the Chaos Theory of Careers points, is that of non-linear change. This has become popularly known as "The Butterfly Effect". Basically what this refers to is the potential disproportionate impact that a small change may have on a complexly interconnected system. The recent history of the internet abounds with such examples (Gladwell, 2003) including the development of Google from an idea to transform search parameters by two computer science graduates into a multibillion dollar company in less than five years from its conception.

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What nonlinear change means for career decision makers is the need to recognise that life is uncertain. Most people most of the time want their lives and careers to be stable and predictable. We want to feel that we are in control. What the CTC reveals is that we are not – at least not in anything like “total control”. The complexity of potential influences on our careers means not only that all these influences are not be exhaustively known but also that they cannot be comprehensively controlled. No future can be guaranteed no matter how intelligent, street-smart, talented, organised, wealthy, motivated, dedicated and disciplined any of us is or tries to be. Of course this does not mean that such characteristics may not be beneficial in career development. They most certainly can be in certain circumstances. However, uncertainty always remains to expose the limits of all human aspirations, achievements and efforts. Therefore the challenge for counsellors is how to incorporate the reality of uncertainty into career development to maximise its potential for positive opportunities and to minimise its potential for negative consequences.

Attractors and Games

Fundamentally “attraction” in chaos theory is a way to describe the functioning of a complex system. Previously we have collated the various ways in which attractors could be described (Pryor & Bright, 2007a). These are:

- 1. Attractors are characteristic trajectories of systems
- 2. Attractors are feedback mechanisms in systems
- 3. Attractors are end states for systems

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4. Attractors are the ordered boundedness of systems

5. Attractors are reality visions in systems

6. Attractors are equilibrium and fluctuation processes within systems.

By analogy with chaos theorists from the physical sciences, we have identified three characteristic attractor patterns (the point, the pendulum and the torus attractors) with closed systems thinking and one attractor pattern (the strange attractor) with open systems thinking in career development (Pryor & Bright, 2007b). Closed systems thinking is characterised by beliefs that all essential aspects of human functioning can be known and controlled. Open systems thinking acknowledges that aspects of the functioning of the complexity of human experience may not be known or controlled and that unpredictable influence external to the system may also influence the system's configuration and functioning. The game metaphor may help counselling clients to identify and understand the dimensions of their closed systems thinking as barriers to confronting constructively the career development challenges of complexity and change (Pryor & Bright, 2004).

Goals

The point attractor is characterised by movement to a single and particular stable state. In career development terms such a pattern of system functioning, is goal driven behaviour. All focus, effort and desire is channelled to the achievement of a particular goal, reward or purpose. While such behaviour can be very effective in particular circumstances we believe that goals have been "oversold" as the answer to career development challenges (Tubbs, 1986; Donovan & Radosovich, 1998). Simply, goal driven thinking overestimates the control that individuals have over themselves, their circumstances and

their world. The game metaphor is one way to both identify and described goal drivenness and to illustrate both its strengths and limitations.

The game of golf may serve as a metaphor for the point attractor. Golfers direct their attention, efforts and skills toward the singular goal of getting the ball from the tee into the hole in the least number of strokes (hits of the ball). There are hazards such as bunkers to be avoided; obstacles such as trees to be overcome and occasional factors such as wind to be allowed for. Serious golfers seek to groove their swing to attain a repeating action, to practise their “short game” and develop their “course management” in order to secure their maximum level of control over where their golf ball goes when they hit it. However, it is obvious that even the greatest players from Harry Vardon to Tiger Woods do not play faultless golf and do not win each time they play. Brilliant though such masters of the game may be, it should be evident with a little reflection, that they never hit every shot they want all the time. Moreover, they have little control if any, over such other factors as the performance of their competitors, the vagaries of the weather, the condition of the course, their tournament tee times and so on: any of which may influence or determine the game’s outcome. Such insights should then enable career counselling clients to recognise both the value and limitations of goal-driven behaviour. As a consequence expectations about the inevitability of success and one’s own personal efficacy may need to be tempered.

Roles

The pendulum attractor is characterised by continuous movement between two different sources of attraction. In career development terms such a pattern of a system's functioning typically occurs when there are two apparently competing influences on individuals' thinking and behaviour. Work and non-work priority integration (often misleadingly designated "work-life balance") is an example that has received much literature and media discussion. The pendulum attractor's pattern is often driven by role conflict, ambivalence or dichotomous thinking. The fundamental mistake is the attempt to oversimplify complexity into two mutually exclusive categories. It is a typical response of stress when confronting crucial decisions.

The game of cricket may serve as a metaphor for the pendulum attractor. In cricket one team bats while the other team bowls and fields. In a test match the game is played over five days in which time one team usually has the opportunity to both bat and bowl twice. Performance in one aspect of the game is likely to influence performance in the other aspect of the game. If your team bowls and fields poorly in the first innings of a game then they will have to bat well when their turn comes, to compensate for the likely large runs total by the opposition. Cricketers seek to develop and hone their skills in batting, bowling and fielding if they intend to be able to play at county or national levels. They need to be able to perform well whether batting or bowling and fielding. However, regardless of how well an individual may perform, other influences such as the rest of the team members' performances, the opposing teams' performances and game plans, the standard of umpiring, the condition and variation of the pitch, the weather conditions from day to day, the state of the series prior (to the commencement of any particular

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game) and so on, may also influence and even determine the outcome of a match. Again this illustrates both the worth and the limitations of human endeavours to be successful in the two different types of activity. It also demonstrates the interaction between the two different types of activity and the need to recognise that they cannot be considered as entirely independent from one another. Such insights reveal the fallacy of dichotomous thinking and the need to understand that for example, career and family influences cannot be partitioned off but instead have to be flexibly reconciled in as much as this is ever achievable. The cricket metaphor also points to the danger of devoting too much attention to only one of two competing sets of priorities.

Organization and Routine

The torus attractor is characterised by complexity of influences and motion in a regularly repeating pattern. In career terms such a pattern of a system's functioning is the person who seeks to control complexity and establish predictability and stability through classification, procedure, routine, repetition and organisation. Such individuals try to cover all the bases by management of people and events and establishing contingency plans for predictable problems. Everything is done to eliminate chance.

A game metaphor that exemplifies this attractor could be grand prix racing. Racing teams devote enormous amounts of time, personnel, expertise and resources to prepare the car for racing. Engines are finely tuned, various tyre types are available for varying track conditions, pit crews are drilled to be able to service a vehicle in a race in the most efficient and shortest amount of time, the driver practises on the circuit and so on. To

win races in such a costly sport and in such a competitive context, every possible preparation is required. The race itself involves repeatedly going around a challenging driving circuit dozens of times requiring skills in slowing and accelerating, negotiating corners, passing other vehicles, responding to track changes, monitoring the racing car to establish what its capabilities at varying stages of race are likely to be, and so on.

However, as a race progresses the limitations all such efforts often become manifest in brake failures, engine blowups, crashes, accidents in the pits, driver negligence or fatigue, changes in track conditions, the number of competitors in the race at various stages and so on. Even the most complete plans and unlimited resources still do not allow for control of all contingencies and surprise outcomes. So it is with careers. It is not that being planful, organised, analytical and logical are of no value. It is not that collecting lots of information, investigating options and understanding yourself, are wasted efforts.

It is however, to show that useful as all such efforts and strategies might be, they are never sufficient to control the uncertainty of life and career. Therefore, we should not expect that they will. The question then arises: well if goals, roles and routines are insufficient to redress our limitations of knowledge and control, what else might we need to do to deal with complexity, change and contingency in human experience? The answer is that we need to develop an open systems thinking approach to reality as exemplified in “the strange attractor”.

The Strange Attractor

What becomes obvious as soon as the details of games are described is that the very

reasons why we play them or watch others play them, relate to issues of uncertainty, inability to predict the future totally and the limitations of human control. For example, one of the thrills of Cup football is that teams in grades or divisions far below the nation's premier teams sometimes score a goal against the run of play (and most people's expectations) and then defend successfully till the end of the game, achieving an improbable victory. If the outcomes of games were always certain most of us would quickly lose interest in the contest even if it is our team that is always the victor. We recognise the value of competition to motivate us to strive for better performance, to be able to recognise and take opportunities, to understand the game better and to be able to strategise more adeptly and creatively. Of course this also involves risk taking, dealing with disappointment and defeat, making mistakes and having one's limitations exposed. However, good game players use negative experiences to learn to motivate, to redress and to improve. Defeats, mistakes and errors are opportunities to build resilience on the one hand and to learn how to do better on the other.

What almost all games ultimately teach us is that human experience is an open system. All but the most trivially simple games reveal sufficient complexity to expose our limitations of human knowledge and control, while at the same providing an experience of repeated stability in terms of the games' rules and etiquette. Games that resemble closed (and therefore predictable) systems rapidly lose their appeal, for instance watching a tennis match between a champion and a novice would rapidly descend into boredom due to the predictable and one-sided nature of the contest. Indeed where one team or participant dominates to the almost total exclusion of others, it is often accompanied by a

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2 decline in the numbers of spectators. In effect, this open systems model of a sport is a
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4 model of the strange attractor of chaos theory. The strange attractor is characterised by a
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6 bounded structure which repeats its pattern of functioning but never in exactly the same
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8 way.
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12 What is being claimed is that virtually any game displays the characteristics of the
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14 strange attractor. Card games easily illustrate the strange attractor pattern (Lewin, 1999).
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16 For example, consider Texas Hold'Em, the poker which has become very popular
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18 through television tournaments in recent years. Each player receives two cards, bets in
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20 response to others' betting, then bets or folds after three further cards are shown by the
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22 dealer (the flop), a fourth and then a fifth card (if required), is shown and players have to
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24 make the best hand they can in a combination of the exposed cards and their own two
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26 cards.
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30 The poker players cannot break the rules for example, by cheating or refusing to accept a
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32 hand outcome without being thrown out of the game. The rules provide the structural
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34 stability for the game - otherwise there would be no game and players would all just do
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36 what they want without restriction. However, there is also chance or unplanned events in
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38 the cards that are dealt to the players. In addition, there is also skill in using the cards
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40 you are dealt in the most effective, skilful and judicious way to maximise your winnings
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42 or to minimise your losses. Even good players will not win every time even when they
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44 play well, if the cards continually "fall" against them. However over time and over
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46 repeated games good players (those who have developed knowledge, skill and
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experience) will win more often than poor players.

Games and Counselling

Games analogies as illustrated above may provide counsellors with ways accessible to clients to convey the challenges of open systems thinking and the limitations of closed systems attractors as ways to control complexity. To introduce the game metaphor to career counselling clients, the counsellor could ask individuals to think of a game which most closely corresponds with how they see or would describe their own lives and careers up to the present or at least in the recent past. Then the specific problem or need that has prompted them to seek career counselling may be able to be formulated in terms of the game. Thus for example if individuals see their lives as a game of ‘Snakes and Ladders’ they may see their current situation as all snakes and no ladders. From this it seems likely that the issue is one of feeling like fate’s victim (the dice always go against them) and that they have no control over their situation. Counselling can then be developed in terms of helping the person build ladders of opportunity, training, self affirmation and proactively to climb such ladders and to avoid and even to kill the snakes of fatalism, defeatism, low self esteem and helplessness.

An alternative counselling strategy would be to suggest another game such as backgammon as an alternative game metaphor for such individuals. The crucial difference is that although there is still a chance element in the throws of a dice, there are also strategies and probabilities that enable players to maximise positive possibilities and

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2 minimise negative consequences. That is, to gain some control of their situation and to be
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4 a basis for constructive future behaviour.
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8 To take another example, some perceived their recent experience like a game of
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10 “Cluedo” (in which players are given clues to eliminate murder suspects, weapons and
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12 locations by moving around a board using a die) but that they have run out of clues and
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14 they still cannot solve the mystery of which job to choose. These individuals are likely to
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16 need more “suspects” to investigate and the possibility that they might consider ‘creating’
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18 their own suspects could also be introduced. It might even be extended to perceiving
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20 occupation search as an opportunity for profiling – inviting the client to identify and
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22 describe the most salient characteristics of the kind of occupation that they seek. This in
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24 turn could lead clients to deeper exploration of their perceived needs, values and
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26 expectations.
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30 Alternatively, clients could be encouraged to make up or modify games to represent their
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32 careers – for instance “I feel as though I am a boxer who has one hand tied behind my
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34 back”. Games can also be used more literally as a counselling tool. One example used
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36 successfully by one of the authors is to make a card game out of an exercise about
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38 personal values. In this scenario, cards bearing value statements such as “honouring the
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40 sacred” or “returning home” (Signposts cards, Deal & Masman, 2004) are shuffled and
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42 dealt out to a group of players (clients). The players then place their cards face up on the
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44 table, and each in turn can ask the others to swap cards with them. The other players do
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46 not have to accede to the request for the swap. Through this process, the counsellor can
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observe which values the client is prepared to discard, which values they seek to acquire, and those that they will not give up. Embedding the values exercise in a game simultaneously makes the exercise less confronting, yet incidentally reveals insights into individuals' values. Pryor (2007) has suggested several game scenarios for using card sorts to assess the complexity of vocational interests.

Games also provide an effective way to illustrate the non-linearity of careers.

Nonlinearity in the Chaos Theory of Careers refers to the potential for a disproportional impact of a small change in a complex system to result in the transformation of that system. In most ball games the outcome can rest on matters of millimetres. For example the difference between a tennis ball landing in or out can make the difference between winning and losing a match which in turn may be career making or ending. Small differences may matter a lot in most games, as they can do in most careers. Life and careers have “near misses” that will sometimes disadvantage us – the job for which we were the second choice, the training course whose entry standards we just failed to meet, the promotion that was withdrawn just before it was to be announced and confirmed and so on. Dealing with disappointment without letting it crush us is what usually makes a champion game player or team. There might be many “close calls” in a tennis match – to be so upset by one or two of them often will mean that the player will lose focus and the match! The game metaphor promotes the idea of persistence which we know to be a fundamental characteristic for dealing effectively with unplanned events (Krumboltz & Levin, 2004). Moreover non-linearity in counselling highlighted through metaphors can point to the importance of taking action – even apparently small and insignificant actions.

Career counselling clients often seek help because they feel “stuck” or “frozen” in their current employment situation (Amundson, 2003). They do not know what to do and cannot see any action that would have the effect of moving them forward. In this sense their careers are “dead” (Savickas, 1997). By exemplifying the value of “small steps” through the game metaphor (what football coaches call the “one-percenters”), counsellors may be able to get their clients taking action sufficient to build some self-efficacy, then a sense of achievement, then some goal setting and fulfilment in turn building personal momentum toward a new career.

Conclusion

Game analogies have been an explanatory approach that is used to provide an understanding of the concepts of chaos theory previously (Lorenz, 1993). In the application of chaos theory to career development, this paper contends that such an application will not only benefit professionals’ understanding but also provides a basis for assisting clients who readily identify their experience with games or sports.

Post-modernist constructivist approaches to career counselling emphasize narrative and encourage clients to “tell their own stories” and “write the next chapter” of their lives and careers (McMahon, 2007). Elsewhere the plots from the narrative metaphor (Pryor & Bright, submitted) have been used in conjunction with chaos theory to address the challenges of closed and open systems thinking. One of the major goals of narrative based approaches to career counselling is to provide those seeking career development

assistance with more than one metaphor through which to both understand their current situation and construct a fulfilling future.

In conjunction with chaos theory, the use of metaphor such as life/ career as a game, can help to generate possibilities that otherwise may not have been constructed or even considered. The contemporary world of work is characterised by ongoing change and increasingly obvious complexity through systemic interconnection. The challenges for career development as a consequence are dealing with cognitive overload and uncertainty. Uncertainty in particular presents us with opportunities to develop potential we and our clients, would not otherwise have known we had and to generate choices that we otherwise would have failed to recognise or create.

Furthermore, confronting uncertainty represents a more general challenge to both theory and practice in the whole career development field. In 1739 David Hume observed that basis of scientific reason was fundamentally illogical. He noted that science can only ever make statements like “All the observed X’s and Y’s” which logically tells us nothing about the next X we will observe. This insight has caused intellectual discomfort to all thoughtful scientists ever since. It was in part responsible for such revolutionary thought as Einstein’s theory of relativity as Einstein himself once acknowledged.

Hume was also an historian. In one sense what he was noting is that all history and ipso facto all human experience, is contingent. That is, that certain sequences of events have followed identifiable patterns in the past, is actually no guarantee that they will

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2 necessarily follow such patterns in the future. In other words, stability (the pattern of
3 past events) may be our best guess prediction of what might happen subsequently – but
4 ultimately it is no more than that. In games the rank outsider, the absolute novice or the
5 total underdog sometimes defeats the favourite, the expert or the champion. Upsets
6 occur, accidents happen, opportunities present – the unplanned or unpredicted sometimes
7 are realised. In fact most of the time our predictions about most events will be right. If
8 we lived in a closed system then we might always be right. However, human experience
9 is lived in an open systems context. Thus life is uncertain. Typically this is interpreted
10 as a negative realisation and recent research appears framed in these terms (Tien, Lin &
11 Chen, 2005). However there is no necessary reason why life's uncertainty has to be
12 negative.
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27 Career counsellors have the chance to help clients in this great challenge. This paper
28 outlined one strategic approach using games analogies to do so. If the future is not set in
29 stone and not captive to an inexorable chain of cause and effect then it presents creative
30 opportunities to construct a meaningful and purpose driven life for ourselves, our
31 communities and our world (Pryor & Bright, 2007a). Life's uncertainty may on occasions
32 be the challenge to suffer courageously and stave off despair, however it can also be a
33 foundation for hope and responsibility for action to create a better career, a better life and
34 a better world.
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