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Article title: Planting the seeds of change: Directionality in the narrative construction of recovery from addiction.

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ABSTRACT

Objective: The dominant theoretical perspective that guides treatment evaluations in addiction assumes linearity in the relationship between treatment and outcomes, viewing behaviour change as a 'before and after event'. In this study we aim to examine how the direction of the trajectory of the process from addiction to recovery is constructed in personal narratives of active and recovering users.

Design: 21 life stories from individuals at different stages of recovery and active use were collected and analysed following the principles of narrative analysis.

Results: Personal trajectories were constructed in discontinuous, non-linear and long lasting patterns of repeated, and interchangeable, episodes of relapse and abstinence. Relapse appeared to be described as an integral part of a learning process through which knowledge leading to recovery was gradually obtained.

Conclusion: The findings show that long term recovery is represented as being preceded by periods of discontinuity before change is stabilised. Such periods are presented to be lasting longer than most short-term pre-post intervention designs can capture and suggest the need to rethink how change is defined and measured.

Keywords: addiction / substance use, behaviour change, narratives, recovery, processes of change

MAIN TEXT

1. Introduction

Behavioural change has become one of the most important themes in addiction and is the central aim in the treatment of drug using individuals. Previous research has shown that recovery from addiction can be accomplished both with the assistance of formal interventions (Gossop, Stewart, Treacy, & Marsden, 2002; Jones et al., 2009; McIntosh, Bloor, & Robertson, 2008; Simpson & Sells, 1990) or without them, while a substantial body of literature recognises the possibility of self-change and natural recovery (Blomqvist, 1996, 1999; DiClemente, 2006; Granfield & Cloud, 1996; Klingemann, 1991; Robins, 1973; Sobell, Cunninghamm, & Sobell, 1996; Sobell, Ellingstad, & Sobell, 2000). Both these pathways - with and without treatment - start from the acknowledgement that change and recovery are attainable outcomes.

While the concept of change has historically constituted a philosophical problem, epistemological concerns about the definition of change are not customarily discussed within research designs. Research studies tend to refer to change as a fixed notion, while only a very limited amount of those are inclined to provide ontological definitions which might affect the aforementioned designs. The aim of this paper is to examine how the process of change from addiction to recovery is constructed in personal narratives, in order to add to the existing knowledge on recovery processes as well as the epistemological and methodological issues surrounding the concept of change. In order for a comprehensive examination of personal constructions of the process of change, and with the aim to capture the ramifications of this phenomenon, this paper employs a multi-disciplinary approach. Drawing on social sciences, such as psychology, criminology and the addiction field allows for a close examination of personal as well as contextual factors that influence addiction and recovery. Borrowing elements from natural sciences enables a broader examination of individuals as dynamic agents and parts of their social systems and contributes towards a holistic theoretical and conceptual apprehension of change.

The attempt to create a unified approach by utilising the benefits of multidisciplinary integration of knowledge has been admittedly challenging, especially

due to differences in terminology when addressing common concepts. Arguing for a unity of knowledge, Wilson (1999: 8) notes that fragmentation of knowledge is an artefact of scholarship and encourages a misinterpretation of the real world, preventing us from seeing the 'whole picture'. However, literature from general systems theory advises that all systems fragment and differentiate in a process of seeking integration and convergence.

2.Literature review

2.1. Epistemological and conceptual issues in the measurement of change-a brief overview

The concept of change, as well its relation to the notion of time have always prominently featured in philosophical discussions. There is a tremendous variety of philosophical and historical attempts to explain the ontology of time which cannot be covered in this paper. One of the most central debates, however, refers to the metaphysics[i] of time and what constitutes reality, as well as the ontology of concepts such as causation, temporal order and change. Practices related to time constitute the basis of human experience (Hammer, 2011) and despite the tendency to regard such concepts as having objective definitions, philosophical reflections on their nature and properties vary. Such reflections have set the foundations of several epistemological approaches and, therefore, still influence the way research studies are designed and conducted.

For the purposes of this paper and in order to understand the basic conceptual components of change -and the metaphysics thereof- it is worth mentioning one of the central problems for the philosophy of time: the dispute over time and reality as immutable or in motion. A position in this debate affects the conceptual boundaries of change. Aristotle challenged the very existence of time arguing that none of its parts exist (the present has no duration and thus does not exist, the past has passed while the future has not taken place yet). Zeno believed in an a-temporal and motionless reality, while Parmenides argued that change is impossible, as when something changes loses its properties and thus does not exist anymore. An important counter argument originated from Heraclitus who argued for the dynamic aspects of a world in constant motion, change and flux[ii], reflected in the metaphor 'we step and we do not step in the same river, we are and we are not' (Blackburn, 2008; Campbell, O'Rourke & Silverstein, 2010; Hammer, 2011; Kahn, 2013). An important ontological distinction that has greatly influenced the epistemology of change is the

difference between the Aristotelian notion of a fixed concept of things (time is the "number of movement in relation to the before and after" *(Phys.* IV 11. 219hlf. as cited in Chernyakov, 2002) against the Heraclitian position of constant change, which was later found in the writings of Hegel whose view of time was consonant with that of a process of 'becoming' (Hammer, 2011). In other words, is change a succession of incidents and states or is it a fixed notion, a sui generis entity that can be marked as a distinct event in time?

2.2. Measuring change and recovery in addiction

The notion of change as a discrete, uni-directional event is not a conceptual construct traced back to Newtonian scientific explanations whereby one-way causality, among other epistemological elements, -was the foundations of scientific knowledge (Von Bertalanffy, 1969). The same 'if-then' causality is also reflected in the subsequential epistemological perspective of positivism whereby, for example, any change in the outcome is measured on the basis of a pre-existing unchanging variable (Blackburn, 2008). There are a considerable amount of studies which acknowledge change as having a historical reality and recovery as a gradual process. Traditionally, however, there has been a traditional reliance on designs which, in an effort to maintain criteria that have been proven to grant reliability, generalisability and validity surpass theoretical work on the nature or the causal mechanisms (Bringmann, & Eronen, 2016).

Whilst there is an abundance of studies which explore the subjectivity in addiction and recovery, there is also a constant need for evidence on interventions that 'work', and, consequently, a large area of research conducted in the field of addiction has traditionally focused on treatment effectiveness. Designs such as randomised controlled trials and the use of pre-post measures have been preferred as methods with which change is measured, despite arguments that such approaches are acontextual and do not capture the mechanisms under which treatment is delivered (Pawson & Tiley, 1997). The prevalence with which such methods are used has resulted in deeply rooted perceptions on the nature and concept of change, the most significant of which are the assumptions of change as a linear construct, as well as the expectations of a direct causality between treatment and change.

The assumption of a direct causality between treatment and change raises doubts as to whether the questions we are asking are the 'right ones' (Orford, 2008). A recurrent

limitation in the evaluation of the effectiveness with the use of pre-post measures is the assumption of short term and unidirectional effects between intervention and outcomes, often viewing change through the lens of 'before and after event' in which effectiveness is judged on the basis of abstinence or relapse. Miller (1996) has referred to this kind of approach as 'simplistic and unqualified', usually leading to very low success rates as it only recognises abstinence and relapse ignoring other favourable outcomes such as reduction in drinking or drug taking. Such notions promote the cultivation of dichotomous perceptions around addictive behaviours as something that an individual either has or has not, and a view of treatment outcomes as either successful or not, with recovery being equivalent to adherence to treatment criteria. Moreover, such conceptualisations depict change as an all-or nothing event, failing to incorporate the underlying personal trajectories and individuals as evolving, progressing and altering through a specific time course. Similar perceptions are prevalent in the way relapse is conceptualised while researchers and clinicians have often been unsuccessful in predicting relapse due to the reliance on a linear and continuous model, although the process involved is more likely to be discontinuous (Witkiewitz & Marlatt, 2007).

Research on natural recovery offers evidence that behaviour change might lay in other factors, not necessarily associated with treatment. The first important review (Sobell, Ellingstad & Sobell, 2000), which was based on 38 studies on natural recovery conducted over a 40-year period, challenged two traditional and dominant beliefs: that individuals can recover only through treatment and that the only way to recovery is through abstinence. The reviewed research not only offers an alternative perspective on how behaviour could change but also demonstrates how factors leading to positive behaviour change might be found outside the therapeutic environment. Interventions might be only one amongst the numerous factors contributing to change (DiClemente, Bellino, & Neavins, 1999); the life course of substance abusers is also affected by many interpersonal, intrapersonal and environmental factors (DiClemente, 2006). For example, better health, professional advancements as well as improvements in marital relationships are all factors that appear to contribute to recovery (Edwards et al., 1977).

The aim of research focusing on change as a process is not to show that treatment and interventions are ineffective, but to stress the importance of exploring and conceptualising how a person changes, not only whether they do so, as factors that are involved within change processes could facilitate of hinder positive treatment outcomes. Pre-post evaluations and controlled clinical trials are outcome-focused and often provide

only limited information on how a specific intervention might work (Pachankis & Goldfried, 2007). Additionally, a concentration on measures taken before and after treatment can lead to a failure to assess mediators (why and how change is occurring) of change, factors that differ in variability during the course of therapy (Laurenceau, Hayes, & Feldman, 2007). The study of processes, on the contrary, could reveal discontinuities and different ranges in treatment responses, highlighting markers of transition which could be isolated and explored further to derive implications for the facilitation of change (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007).

2.3. Interdisciplinary approaches and an integrated conceptualisation of the change processes

Von Bertalanffy (1969), in the context of general systems theory, notes that one of the scientific problems encountered in many disciplines stems from the explanation, prediction and control of relations between two or a few variables and the effort to explain behaviour in a unidirected manner. In disciplines however that focus on living organisms, psychology in particular, such explanations would be problematic as human beings are not the mere sum of variables but constitute *active personality systems*, existing and interacting with many and partly unknown variables: '*A different concept of organism and personality is that of system—that is, a dynamic order of parts and processes' (1969:39).*

Adding to the notion of organisms as systems, chaos theory focuses on the study of non-linear dynamic systems, examining behaviours that appear to be discontinuous and unpredictable over time (Goerner, 1994). Chaotic systems are described as dynamic and open to constant exchange of information, in interconnection with other systems. Chaotic behaviours were first examined by the meteorologist Edward Lorenz (Gleick, 1987); however the study of chaos has found applications in many disciplines, with discontinuity, turbulence and non-linear changes found in many natural and artificial systems, including human behaviour. This parallelism is not merely metaphorical; there are similarities that chaotic systems and human behavioural systems share. Chaotic systems but also human behaviour are 'open' systems, existing in interaction with their environment importing energy and information and are reorganised through it, as opposed to 'closed', non-chaotic systems which devolve to 'stasis' or death. Open

systems, when reacting to disturbances, can operate in disequilibrium, exhibit chaotic behaviours but return back to equilibrium through reorganisation, self-renewal and adaptation (Parker, Schaller & Hansmann, 2003). Such behaviours appear in more disciplines. Prigogine & Stengers (1984), for example, in their work in nonlinear chemistry and physics, argue for the way *'order comes out of chaos' and* the role of turbulence and disorder as part of a self-organisation process.

In the social sciences and disciplines that focus on human behaviour, similar conceptualisations of change can be found in studies focusing on transition periods and life events, as well as in processes and therapeutic change in the course of various psychological disturbances. For example, the behaviour displayed by open systems and their return to organisation through chaos, resembles the way psychological growth and positive change occur after periods of distress. Tedeschi and Calhoun (2004) argue that positive change can occur as a result of the struggle with highly challenging life crises, the latter typically experienced with distress and unpleasant emotions as individuals try to adapt to new circumstances. However, they note, that 'there is gain in suffering', as negative events and life crises can lead to a positive self-transformation referred to as 'post-traumatic growth'. Linley & Joseph (2004) use the similar notion of 'adversarial growth', to refer to change that occurs after struggling with adversity, leading individuals to higher levels of functioning. Similarly, Kelso (1995) argues that when new changes in an individual's environment cannot be assimilated, sudden spikes or 'critical fluctuations' occur during which the behavioural system appears to be in a degraded and destabilised state until it adapts to new conditions. Similar findings (Baumeister, 1994; Mahoney,1982) suggest that psychological disequilibrium as well as distress, disturbance and dissonance are common before important life changes.

Periods of confusion and disorganisation are an integral part of growth preceding change in Hager's (1992) psychological 'model of chaos and growth'. During 'chaotic states of mind', the author argues, individuals are drawn to a reorganising activity adopting more adaptive patterns; a chaotic state, in this case, is seen as an indication of progression rather than resistance or regression. Hager does not regard the stages during which the patient appears disorganised and confused, as indicating resistance or ambivalence toward treatment but rather as periods of reorganisation and adaptation to new information. As such, periods of relapse to previous behaviours might be interpreted as 'incubation periods' during which the person gathers and reappraises information before they move onto a new way of living. These 'gestation stages', as Hager names

them, entail a degree of discomfort, not least because personal change and reconstruction involve being confronted with an unfamiliar and unpredictable future. By gradually integrating diverse and antagonistic experiences, the person's whole representational world becomes more inclusive and adapts to the new conditions[1]. Similarly, Hayes et al. (2007) notice similar discontinuous movements before positive change is observed in patients with depression, whereby initial improvements could often be followed by periods of increased disturbances and worsening of the symptoms (depression spike), before mood is eventually stabilised.

2.4. Process of change in addiction

Process research in addiction has not been scarce and has mainly focussed on factors that might influence individual pathways towards recovery. For example, cognitive appraisal of the pros and cons before change (Sobell et al., 2001), psychosocial processes of identity reconstruction (McIntosh & McKeganey, 2000; Biernacki, 1986), viewing (cannabis) use as less positive (Ellingstad, Sobell, Sobell, Eickleberry, & Golden, 2006), as well as the importance of supportive contextual elements that facilitate the 'way out' of addiction (Waldorf, Reinarman, & Murphy, 1991), have been identified as possible ways of achieving recovery.

Prochaska and DiClemente's Transtheoretical Model (TTM) and their Stages of Change Model (SCM), presents change as a gradual and staged event that lasts for about 7-10 years (Prochaska & DiClemente, 1984). The model suggests five stages through which the individual progresses, employing strategies to move from one stage to the next (Prochaska, Velicer, DiClemente, & Fava, 1988), with return to prior stages not being uncommon. The model has been heavily criticised for the lack of distinct and clear stages

[1] It is useful to note the misconceptions surrounding the use of the term 'chaos' which result in the associations of the term with randomness and unpredictability. These misconceptions originate usually from the unscientific use of the term or its use as a metaphor. However, the main element of chaotic systems is their sensitive dependence on initial conditions with big changes in future states, occurring after only minor errors in measurement of the initial conditions (Kincanon & Powel, 1995). In this context, although Hager implies non-linear motions in human behaviour, he does not clearly define the term 'chaos'. Although non-linearity is inherent in chaotic states it can be found in other systems too. In this case, it is not clear if treatment is perceived as change in initial conditions that could cause chaotic behaviour and it can be assumed that the term 'chaos' is used as a metaphor of random and unpredictable behaviour.

or the assumption of conscious decision-making change that make it a model with questionable theoretical coherence and applicability (Burrowes & Needs, 2008; West, 2005). Despite the criticism, the SCM suggests identifiable 'turning points', important moments in the lives of addicted individuals that lead to the decision to give up substances and presents change as a long lasting, discontinuous process, as the model allows the possibility of relapse and regression to previous stages.

On the other hand, change in addiction has also been described as a sudden event. Miller, who focused on the dramatic epiphanies some members of Alcoholics Anonymous (AA) experience (Miller, 2004), demonstrated how the directionality of change is influenced by turning points. What the authors described as 'quantum change' were sudden and profound changes preceded by intense disturbances such as loss and distress; generating, in turn, a deep shift in both the individuals' values and behaviours (Miller & C'de Baca,1994; 2001).

Although quantum change, as described by Miller (2004) appears to be sudden, with vivid and dramatic manifestations, it is not commonly found in therapeutic change. On the contrary, when sudden changes appear, this is usually a sign that clients' problems will return, 'often with vengeance' (Bien, 2004). Other studies, for example, document 'spikes' in change patterns, large symptomatic improvements that occur during the early stages of Cognitive Behavioural Treatment (CBT) for depression (Rush, Kovacs, Beck, Weissenburger & Hollon, 1981) with very little improvement after that point (Ilardi & Craighead, 1994). However, it appears that sudden improvements and sudden moments of realisation are part of a more gradual continuum, a 'peak', a cut-off point when behaviour change appears to be more noticeable although still occurring as part of a more timely process. Gianakis and Carey (2011) studied patients who have been through psychological distress and naturally changed without psychotherapy, and documented that the change occurred through several sudden and vivid moments of realisation after which change was considered as the only option. One of their most important findings was the notion of the 'threshold', a moment experienced by individuals with intense emotions which led to the realisation that change was necessary.

An important theoretical contribution in the field of addiction, which takes into account the dynamic aspects of human nature and acknowledges the fact that human behaviour appears chaotic the same way as weather patterns do, is West's (2006: 218-228) argument that psychological systems are dynamic and inherently unstable yet, they are also adaptable and remain stable by constant balancing external environmental inputs.

West argues for a 'homeodynamic' system in constant flux which balances itself by frequent checks of environmental inputs to avoid descending into 'chaos'. Change-or redirection towards a new pathway takes place either with the contribution of a single event or gradually, through succession of small events.

3. Method

3.1. Aims & Method

This study focuses on the process of change from addiction to recovery and specifically on the directionality/linearity of the recovery process at two levels: first, exploring the experience during addiction and at different stages of recovery, as expressed in the narrative discourse through which such experiences are reconstructed for the researcher. Secondly, by reconstructing the directionality of the narratives to gauge the shape of the trajectories, the recovery phases and relapses, viewing individual movement from different positions in the path. The dynamics of change in the process of recovery from addiction are explored here through autobiographical narratives. Accounts of personal experiences can reveal the interplay of external and internal factors, highlight subjective causality and ascription of responsibility, and in so doing help understanding the qualitative changes through which participants gain agency and control (Bruner 2003; 2004; Flick, 1999; Riessman, 2008).

Causal explanations (in this instance the assumed direct causality between treatment and change) can be considered as the foundation behind the logical–scientific paradigm of the natural sciences and aim for generalizable results. On the other hand, narratives are individually constructed, can be context-specific and provide detailed information about time, place, events and processes (Elliott, 2005). In recent years, an increasing number of researchers have focussed in the way people construct stories about their lives. Such stories are not regarded as simple records of past history but a biography build out of emotionally and socially evaluated events (Labov, 1997). Narratives, in this sense, are not static entities but are constantly evolving and stretching their boundaries according to social and personal circumstances and context (Antaki, Condor, & Levine, 1996). Narratives or personal myths are therefore flexible as they are constructed in order to communicate and define someone's identity, both for themselves as well as for their audience (McAdams, 1993). In this paper we employ the constructivist approach

influenced by the methodological and theoretical framework of narrative criminology, taking the stance that reality is narratively constituted and narratives shape our experience in a reciprocal relationship (Presser 2008, 2009; Sandberg, 2010; Presser & Sandberg, 2015). Narrative, in this context, is presented as constitutive of reality and not representative, it does not have a fixed essence but is shaped through interaction and constructed under the influence of social factors, language and culture. A narrative is important because as a "temporally ordered statement concerning events experienced by and/or actions of one or more protagonists", is a mechanism through which identity can be thoroughly examined articulating motivation for past actions but also plans and intentions for the future (Presser, 2009: 178–179).

With this position in mind, we are confronted with yet another ontological feat to define whether narratives could provide 'true' answers. Guided by the spirit of post-positivism, narrative truth represents the debate into whether the told story represents the factual reality, 'the conflict between what is true and what is tellable' (Spence, 1984: 62). Admittedly, this problem can be encountered in any case of retrospective accounts, however the debate of narrative versus historical truth is closely related to the way we understand what narratives are communicating in relation to one's self and identity. A sharp distinction between narrative and historical truth, however, is not perhaps as clear as is commonly thought (Bruner, 1991:13); historical truth can be seen not as a real object but as an approximation, a conjunction and a reproduction of the data available to us (Sarbin, 1986: 197). Keeping in mind the elasticity of narratives, the fact that they are constantly reconstructed in order to convey a particular viewpoint and portray the narrator in front of their audience, we regard autobiographical remembering as conducted in relation to one's current life perspective. This perspective and personal situations will differ and any recollected events will also be emotionally and socially evaluated, in relation to individual situations. Therefore, the aim of this paper would not be to determine objectively the process of change, but to look at how pathways out of addictions are personally experienced and constructed.

3.1. Data collection (11)

Data collection took place in a city in the South of England, at a time when a recovery community was gradually developing. Before the start of the project, the research team

attended several service user groups, where the aims of the research were explained. The recruitment method used here, Respondent Driven Sampling (RDS), is a snowball technique which is considered more effective than traditional sampling methods when recruiting 'hidden populations' (Abdul Quader et al., 2006; Heckathorn, 1997; Robinson et al., 2006), as the participants themselves are recruiting members of the community that would be hard to reach by researchers. 'Hardcore' active users were especially difficult to find as they could not be approached through treatment services or any other official route, as their "activities are clandestine and therefore concealed from the view of mainstream society and agencies of social control" (Watters & Biernacki, 1989: 417). The prospective participants of this study fulfilled the criteria of 'hidden populations' as described by Heckathorn (1997): firstly the lack of a sampling frame , as the size and boundaries of the population are unknown and secondly the strong privacy concerns as the focus of the study involves stigmatised or illegal behaviour. Both criteria make such populations rare and traditional sampling methods ineffective. In this case, recruitment of people involved with illegal activities is more effectively conducted through other people in the same position (Fleetwood, 2013) and in this case, RDS proved to be an especially valuable method.

The first participants were provided with advertising flyers and were asked to pass them on to individuals who were either in active use or in recovery, resulting in twenty-one in-depth interviews with eight active drug users and alcohol dependent, and thirteen users in recovery. Recovering users were approached through several treatment services in the specific area, while active users were located through the method described above.
In view of the above, the sample was necessarily purposive and data collection was conducted until new information, themes and trajectories stopped emerging (data saturation).

3.1.1. Stages of recovery

The term 'in recovery' proved to be operationally problematic in that it was too broad to cover the differentiation of individuals at different stages of the process. Since recovery is a journey taken up in different ways by different individuals, there is no consensus over the exact time frame at which someone might be considered as 'recovered'. The term 'recovered' is in itself questionable, as the danger of relapse is always imminent even for users who consider themselves in recovery, and as a result there is no proof that this absolute point of 'cure' exists. Research, however, shows that the stability of recovery increases and the

chance of relapse decreases between the fourth, fifth and sixth year of abstinence (Edwards et al., 1977; Vaillant, 1996; Jin et al, 1998). One of the most widely used definitions of recovery, the one provided by the Betty Ford Institute (2007), drawing on an ample basis of research findings, establishes the following stages: early recovery (from 1 month to less than a year of abstinence), sustained recovery (at least a year but less than 5 years) and stable recovery (at least 5 years). In this study, interviewees were in different stages, some in the very beginning and some counting many years in recovery (see Table 1 for the characteristics of participants across the stages). Acknowledging the limitations of the term 'in recovery', the above definition is used more as a way of organising the participants and reporting the findings rather than excluding any other form of categorisation.

Among the participants there were three individuals on methadone maintenance. There has been considerable disagreement about whether methadone users are regarded as being in recovery or not (Rounsaville, Kosten, & Kleber, 1987; The Betty Ford Institute Consensus Panel, 2007). This initiated from different practices and definitions of recovery (e.g. total abstinence from any substance is a prerequisite for inclusion in groups such as the AA) although methadone maintenance programs can be the first step towards abstinence. An important consequence of this narrow definition is the stigmatisation that accompanies the denial of the status of recovery to individuals who are stabilised on methadone. White, a historian and activist of recovery, warns against the use of such definitions in that they could determine inclusion, exclusion or access to treatment services as well as favour social stigma:

"A particular definition of recovery, by defining who is and is not in recovery, may also dictate who is seen as socially redeemed and who remains stigmatised, who is hired and who is fired, who remains free and who goes to jail, who remains in a marriage and who is divorced, who retains and who loses custody of their children, and who receives and who is denied government benefits." (White, 2007).

Participants who reported as being in recovery were considered as such and the use of methadone was considered as a step into recovery. Exclusion from the recovery category would be applied if the individual was additionally using street drugs 'on top' of their methadone script, although there was no such case reported. Moreover, some of the participants had preferred to cut down their use instead of going 'cold turkey' or taking a substitute, creating difficulties in the inclusion within categories. For some, recovery meant total abstinence, and for others this was gradually cutting down on their use. This is a problem previously encountered in studies of change (Gianakis & Carey, 2011) as well as in the definition of drug use and relapse (Miller, 1996). It also depends greatly on the kind of

treatment every individual is receiving, as different services have different approaches to recovery and responses to relapse. That was the case for two participants who self-reported as being in recovery although they made occasional drug use but considered this as progress compared to their previous state. After their interviews and plotting their trajectories into graphs, however, it appeared and this was progress-an increment- compared their previous heavy active use. Because of the focus of this study on individual interpretations and evaluations of events in their recovery, the two participants were allocated to the recovery group even though occasional use was noted on the graph.

3.1.2. Participants and interviews

The average age of the group was 39.9 years. All the interviews were conducted between June and August 2011 in a designated room in the host university. After being given a description of the study, all participants were asked to narrate their life story from the earliest point they could remember until the day of the interview. Interviews varied considerably in length, from 15 to 58 minutes, the shorter ones belonging to active users, as illustrated below. The aim of the study was explained before the beginning of every interview, and every participant was reassured that confidentiality would be kept at all times. Permission was gained in order to use quotes from their narratives explaining that, in such case, no information that would lead to their identification would be given out. Participants signed an informed consent form in the beginning of the interview and received a debriefing form at the end of it. The study had been approved by the Ethics Committee of the host university.

Name	Age	Gender	Drug of choice	Status
Jane	47	F	Alcohol	Active
Chloe	38	F	Heroin	Active
Molly	43	F	Heroin	Active
Janine	28	F	Heroin	Active
Kathy	65	F	Alcohol	Active
Tina	32	F	Heroin	Active
Rob	29	M	Polydrug	Active
Matt	35	M	Polydrug	Active
Peter	29	M	Heroin	Early recovery (methadone)
Maria	34	F	Heroin	Early recovery (methadone)
Ricky	50	M	Alcohol	Early recovery
Malc	26	M	Polydrug	Early recovery
Ronnie	40	M	Polydrug	Early recovery
Frankie	36	M	Speed	Sustained recovery
Graham	50	M	Alcohol	Sustained recovery
Erin	32	F	Polydrug	Sustained recovery
John	42	M	Crack cocaine	Sustained recovery
Abe	27	M	Cocaine	Stable recovery
Ken	55	M	Alcohol	Stable recovery
Ross	60	M	Heroin	Stable recovery (methadone)
Lisa	54	F	Alcohol	Stable recovery

Participants were encouraged to narrate their life, starting from the earliest point they could recall until the day of their interview. Specific attention was given to periods of abstinence and relapse, participation in treatment or self-help groups, explanations of recovery and reflections on the process that might have led to this decision. Participants were free to construct their narratives in their own way, although prompting questions were also used in order to provide chronological guidance. These included and eliciting details about different phases when participants were unsure of the sequence (e.g. What happened next? How do you remember yourself at this point of your life?). The interviews were recorded with a dictaphone and all recordings were transcribed verbatim. All participants' names have been altered to ensure confidentiality.

3.2. Analytical method

Gergen and Gergen (1983) argue that narratives are the means by which people select events and link them through evaluative comparison, to make sense of their cross-time trajectory. According to the authors, it is not single events which dictate the shape of life story, but the life story as a whole – its overall narrative form - which assigns meaning to single events. For example, "stability narrative is a narrative that links incidents, images, or concepts in such a way that the individual remains essentially unchanged with respect

to evaluative position" (p.264). Stability narratives are contrasted with progressive and regressive narratives, in which either increments or decrements characterise movement along the evaluative dimension over time. Gergen and Gergen's narrative typology (1983) inspired the analytical approach of this study, as it is particularly apt to capture the general narrative structure of an autobiographical interview while keeping track of the internal variations and shifts.

Recursive reading of the interview transcripts helped initially to identify features of the narratives in relation to temporality; these included descriptions of routines and any iterative activity, punctual events, perspective on the past and future. Audio-recordings relative to the selected excerpts were listened again to refine transcription and ensure correct understanding. Each life story was considered as a whole in the interpretation of the excerpts, and narrative analysis was applied to understand the autobiographical accounts in their entirety and to interpret single episodes that were recalled. The analysis sought to identify salient features of the lived temporality of substance abuse, different stages of recovery and long term abstinence.

Gergen and Gergen's (1983) model was additionally employed in order to attempt a more synthetic rendition of the trajectories, only relative to the period from substance abuse to recovery. After analysing and synthesising each narrative to a timeline, outlining the process from active use to the present, we identified 'stable', 'progressive' and 'regressive' phases within the narratives. The whole narrative was then graphically represented for a more immediate apprehension of the trajectories. This analytical approach was applied to all the narratives, regardless the active or recovering status of the participants.

This paper is part of a larger project which examined the process of change from addiction to recovery. An in-depth analysis of the interviews documenting salient features of the phenomenological aspects as well as the social sphere of addiction and recovery is included in (Kougiali, 2015) and will not be repeated here, as the present study is focussing on the directionality of recovery. Quotes from active users are only used here as a means of a better understanding of the data, while the main focus of the analysis will be the trajectories of the recovering users.

3.2.2. A note on participants' narratives

The evolving nature of personal narratives is of specific interest when considering the data analysed in this paper for two reasons: Firstly, narratives are central in treatment for substance using individuals, for example, storytelling is central in AA/NA meetings. It was also evident that the stories were vividly constructed based on discursive formats drawn from the participants' social context, and from narratives which were already available to them (Atkinson & Coffey, 2003) about the treatment environment. Individuals in recovery had been through a process of restructuring their life stories in a way that made sense to their new recovering identity, gave an explanation to their past actions and choices and provided aims and goals for the maintenance of a future sober/abstinent self. Given that all participants were part of the same recovery community and had access to the same treatment services, there was a uniformity in the structure of the narratives and the way explanations of past use and recovery oriented goals were presented.

In addition to this uniformity of structure, participants often used therapeutic and psychological terminology, which was accompanied by scholarly definitions of the terms for the enlightenment of the interviewer. The use of terminology varied between the participants; some of those in early recovery would be fascinated by the new information representing the opening of new opportunities and would often speak in the language of a practitioner in order to offer explanations about their use and episodes of relapse. Recovering users' narratives also differed in the way they represented themselves. Those in early recovery would still identify with a 'user' identity, while those in long term recovery would often distance themselves from that role (usually with references to active and early recovering users as 'them'). The use of different substances did not affect the structure of the stories or the episodes and frequency of relapses; however it is worth noting that substance users were often more involved with the criminal justice system in comparison to problematic drinkers.

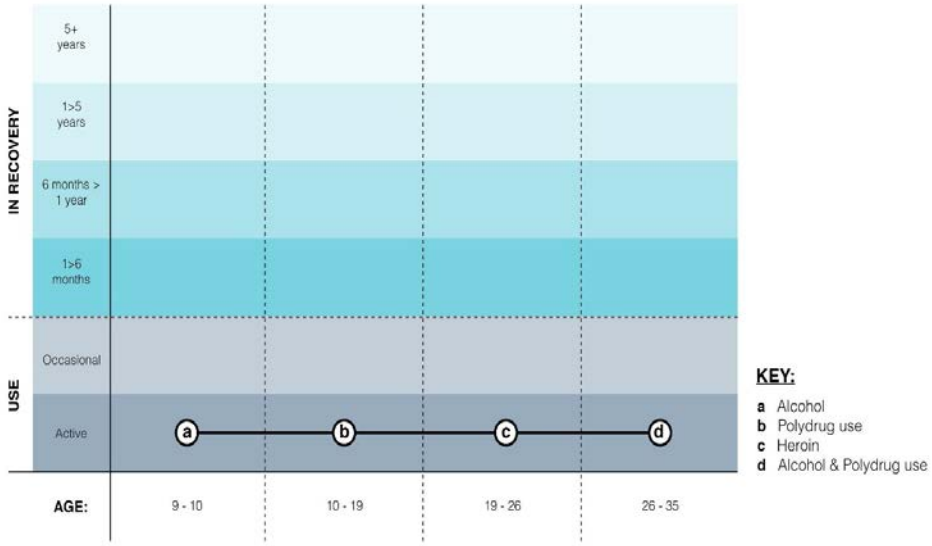
Active users' narratives differed in many aspects. Those who had never been in touch with treatment services would appear to have (in cases significantly) unstructured stories, whereby events were not always narrated in a logical temporal order. Episodes or periods of heavy drug use would not be followed by a reflection or explanation. Similarly, their narratives were characterised by repetition and adherence to the present, most often without reference to future plans and goals. Yet, the difference in narrative structure, linguistic devices and content was discernible in the narratives of active users

who had been, even briefly, through treatment. In this case, the plot would be enriched with some degree of reflection and appear temporally ordered more logically having more similarities with the 'recovery' stories in terms of structure, albeit being consistent with the living experience of active use.

4. ANALYSIS

4.1. .Trapped in the cycle

A pattern of continuous effort and frequent relapse was found in all categories of participants regardless their stage of recovery, while relapse was found in all life stories, including those from participants who had achieved long term recovery. The only life story that appeared linear, stable and without fluctuations was the one narrated by those active users that had made no attempts to abstinence and/or recovery, such as Matt's, the active polydrug user with a long history of alcoholism represented in Fig.1.



Below is an excerpt from Matt's story:

Matt: sniffing glue, acid, doing acid, lots of acid uhm and going to pubs, all this time in the pub, pub pub pub pub pub pub. So I've done that, amphetamine for 9 years, a lot of amphetamine, I went crazy, I just stopped the amphetamine, so I stopped the amphetamine for 9 years, then I said fuck that and I started heroin to slow me down

It is noticeable that Matt presents his story as exclusively comprised of interchangeable episodes of drug use. Other life events in his narrative were generally absent, while it appeared that the substances, listed one after the other, had fully occupied his life so far. His narrative identifies periods marked by the use of different substances *(sniffing glue, doing acid, and going to pubs, amphetamine for nine years, I started heroin)* and the times in which the effects became unmanageable (*I went crazy I just stopped the amphetamine*). Although he counted 26 years in active addiction, Matt did not seek professional help even when the effects of his use caused him serious mental health problems. Instead he changed the drug of choice, and made no effort of abstaining, contributing to a 'flat' and linear trajectory of repeated drug use that overshadowed every other aspect of the his life.

Unlike Matt, most interviewees, including active users, reported a continuous struggle and efforts to stop drinking and/or using drugs. Initial attempts were made with visits to detoxification centres or hospitals or through maintenance therapies (mostly Subutex or methadone[2]). These efforts were most often unsuccessful, and were followed by relapses and return to previous states of active use. Attempts at quitting were often combined with a feeling of despair, and the participants often expressed a fatalistic fear that they would never be able to maintain abstinence despite their best efforts. Tina, below, a chronic heroin user still in active use at the time of the interview, offered a very effective description of the cycle of detox and relapse:

Tina: I relapsed. Got back on the crack. Got back on the gear. Got back to jail. I've done-I got 12 months I've done 6 months. I got back on the gear. And then throughout like the next 5 years I tried to get clean load and loads of times on subutex. I think I maintained staying abstinent but just on subutex. For

[2] Drug maintenance, substitution or replacement therapy involves the substitution of an illegal drug, such as heroin, with a legal one such as methadone or buprenorphine (usually found under the trade name Subutex).

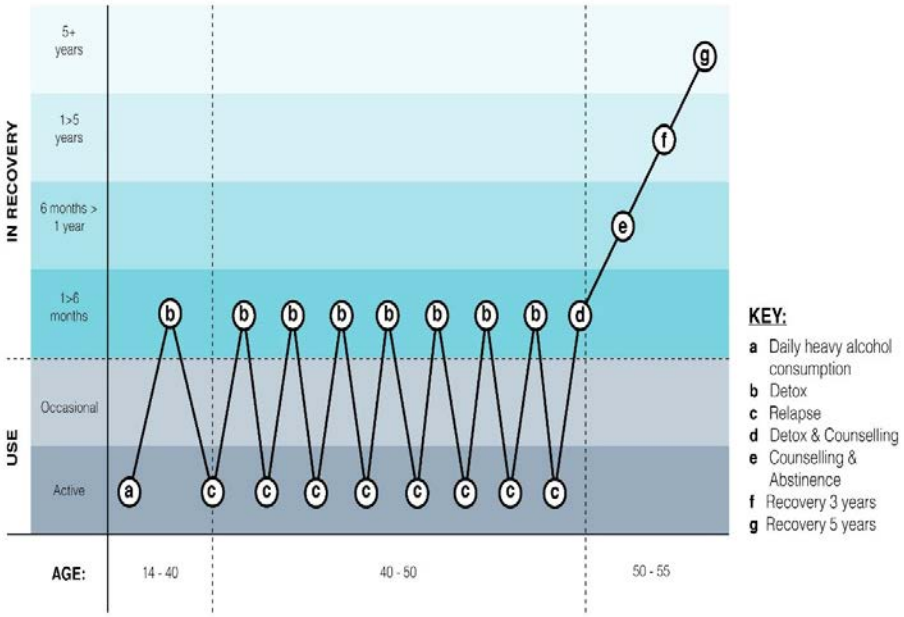
about 8 months. And then got back on the gear (…) I'm not- gonna give up. It's so like - I don't know the gear is fucking mad. It's fuckin'mad. As while as you're doing it it's good as everything. Is-it-it steals sort of-it's got ya. It's gonna get me for the rest of my life. It might get easier but it's always going to be there. And it's such a fine line between being on it and being of it. It's mad isn't it?

Tina started her narration describing her childhood years and how she was a child with a promising future, then going into how soon after the death of her father, experiencing several emotional difficulties, she resorted to drugs. Her description above, which shared common elements with other active users' life stories, offers the account of an inescapable cyclical life with an admission of her powerlessness over drugs. Even though Tina is also an active user, her trajectory is not flat and linear like Matt's but is interrupted by her efforts to remain abstinent. Even if her efforts were followed by relapse, her trajectory pattern demonstrates progressive as well as regressive points. Her quote shows the fractured timeline of initial recovery attempts accompanied with traces of both fear, inescapability and fatalism *(it steals sort of-it's got ya. It's gonna get me for the rest of my life)*, as well a big effort and determination that goes against the power of the substance *(I am not gonna give up*).

This continuous effort was recalled by users in recovery although their descriptions were more emotionally distanced from the angst of the constant effort and were not described as vividly as in Tina's quote. Ken was in stable recovery; after twenty years of heavy drinking the deterioration of his health made detoxing a necessity. Ken, unlike Tina who was trapped in the cycle of dependency, was now able to understand his numerous relapses because of his work as facilitator of a self-help group:

Ken: The end went on to five years, I had periods of recovery but then I'd always relapse which I understand now working with those people (. . .) I think because I've been into detox years and years-over the years- I think every time I went in, a little bit of something a little drip was coming and when realisation came even though I had a lot of counselling at the time I think that drip-drip-what I've learned over the previous admissions all came into one.

Ken, now being able to comment on his whole trajectory, recalls that '*the end'*, which started when he realised he had to stop drinking to maintain abstinence, lasted five years. Ken reported a series of failed attempts (*I'd always relapse*), highlighting the frequency with which every attempt for recovery was followed by relapse episodes (*always*). The intensity of his effort as well as his perseverance were evident, considering the numerous times he had been in hospital for detox but also his perception that this covered a considerably long period, which may have been perceived to be even longer (*I've been into detox years and years over the years*). We can observe in Ken's graph (fig.2), that despite his repeated relapses and his numerous admissions, he eventually achieved long term recovery, but he recalls how it all seemed at the time almost pointless, since his numerous attempts were followed '*always*' by failure and he only understood the reason for that '*now*'. Like Ken, users who had succeeded in maintaining abstinence and were in later stages of recovery never attributed it exclusively to one type of treatment or a single event. Rather than change being ascribed to the radical effect of one of the treatments it was instead reported as a process of accumulating knowledge '*drip-drip*' through relapses and various successful and unsuccessful treatment attempts, which gradually resulted in increased self-awareness and knowledge on what would work or not for them.



Although sudden changes that bring individuals to states of realisation and awareness have been found repeatedly (Miller & C'de Baca, 1994, 2001; Miller, 2004) and specifically amongst members of AA, there was only one such report amongst our

participants. Lisa, having been dependent on alcohol, had been in treatment for about a year when she described such an episode of realisation:

> Lisa: I'd go to a meeting every evening and I used to start feeling that was good. But when I left that meeting there was a strong loneliness in me. It was weird. It was like ''God, what is this?'' And I remember that one day I left the meeting and the loneliness was gone. It was like even I might be walking alone on my own, I didn't feel lonely anymore. It was like I was part of a big thing that was there.
>
> Interviewer: When did that happen?
>
> Lisa: It was not long it took about a year after, so about 5 years ago. It was weird. It was in a real in depth loneliness and then I said 'wow'. It was like a real warm glow. Something had cracked there somewhere. Like the realisation.

Although Lisa described her experience in terms that resembles Miller's (date) quantum change, the 'realisation' occurred in a broader context of a recovery journey. The 'epiphany' accompanied with all its characteristics the 'warm glow' and the 'realisation' did not occur suddenly but took place after a year of abstinence and attendance of AA meetings. The moment of realisation was a 'peak' moment incorporated in a gradual journey, cultivated for five years within the social context of a recovery group. What was experienced by the participant agrees more with Gianakis and Carey's (2011) findings, which documented several vivid and sudden moments such as the one described (*It was in a real in depth loneliness and then I said wow. It was like a real warm glow. Something had cracked there somewhere. Like the realisation*), as part of a gradual process that eventually leads to behaviour change. Despite this moment of 'epiphany', the road to recovery was equally gradual in terms of personal development, when compared to narratives where no such realisation occurred. This moment of realisation initiated the process of change but did not expedite it.

4.2. The seeds of change

John, two years in recovery at the time of the interview, gave a powerful description of his life in the streets as a 'dog eat dog war' and 'survival of the fittest'. He depicted himself as someone that had always been cold-hearted and never experienced an

emotion. He reported that his lifelong mistrust toward others, once a way of survival in the streets, was the biggest barrier he had to overcome when he entered into recovery. This was initially addressed during his admission to a treatment program and although this did not have an immediate effect, things started 'making sense' years later:

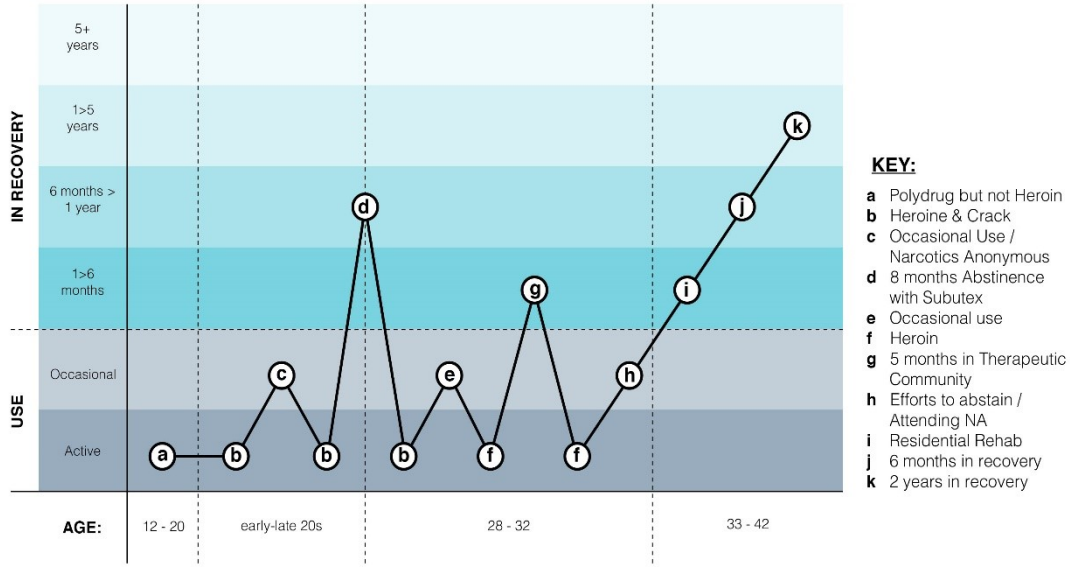
> John: So I left there the same way as I got in, came out, got bored, picked up a drink. But that treatment centre. Everything that they taught me came true. If I ever listened. Because all that they said, in reality would come true. But they planted the seed.

At the time when he first left the treatment, John felt like nothing had changed and that his problem with crack cocaine had not been addressed (*I left there the same way as I got in*). He describes what appears to be a routine and expected relapse (*came out, got bored, picked up a drink*). John, however, realised, the value of that treatment, and implies here that things would have turned out in a different way if he had accepted earlier what he had learned (*if I ever listened*). What he realises now as the value of treatment is expressed with extreme case formulations[3] (Pomerantz, 1986) – (*everything* that they taught me/ *all* that they said, in reality would come true) demonstrating how he can trace back and connect events in his life making sense of the past and the present. Using the metaphor of a seed that is planted, John acknowledges the initiation of a process of sense making that would be deep, as a seed planted in the ground, as well as long lasting one resembling the time needed before the seed grows. After 27 years, John re-enters treatment and recalls:

> John: And it got so deep that going to treatment twenty-seven years later for a second time that stuff got up, all the childhood, that secret that I kept for many years and I used on that, I didn't know any other way (…) I'd let nobody in into my little cocoon, my little world until I came into treatment for second time. And then I started letting people in into my life, talk about my childhood experiences growing up, to trust.

[3] Pomerantz (1986) discusses the conversational uses of Extreme Case Formulations, extreme expressions such as all, none, best, least, as good as it gets, always, absolutely, perfectly used as rhetoric devices to illustrate activities such as complaining, justifying, accusing, legitimising, defending.

On that second attempt and with the appropriate support, John appears to be making the first changes in lifelong beliefs, as well as acknowledging traumatic experiences that he had kept hidden for a long time. He identified characteristics of himself (*I'd let nobody in into my little cocoon*) as well as the reasons behind his drug use (*that secret that I kept for many years and I used on that*, *I didn't know any other way*), here traced back to his childhood. Connecting the reasons and with reflective self-understanding, he offers new ways of dealing with things and a new version of himself. Having described himself elsewhere in his interview (see Kougiali, 2015) as being in a 'survival mode' and his life in the streets as a 'dog eat dog war' whereby mistrust was a way to protect himself, he now describes the process of regaining, or finding anew, his ability to trust others (*And then I started letting people in into my life, talk about my childhood experiences growing up, to trust*). It is notable in John's extract, as in Ken's earlier, that the process that led from active use to recovery was a long lasting one, making their lives consisting in their biggest part of active use and the latest few years of their attempt for recovery. It is understandable that coping strategies that have lasted for a lifetime could not be deleted or altered drastically. John's trajectory (fig. 3) does not have as many fluctuations as Ken's, however, it is also discontinuous with regressive and progressive movement between periods of abstinence and relapse with adequate treatment for the 'seed' to be planted and enough relapses to challenge his beliefs and reflect on his drug use.



Interestingly, other participants in recovery offered similar explanations: heavy drug use or drinking was the means by which powerful negative feelings were numbed, and recovery was marked by the identification and the steps taken towards resolving a psychological problem deeply rooted in the past (see also Fasulo, 2007). Although this was often pointed out to them during the first attempts of treatment, things only made sense later and thoughts were reflected upon after the lapse of time during which they had returned to active use. Maria still in early recovery, described what happened to her after reasons behind her use were pointed out to her and how this '*messed up with her using':*

Maria: Once you get told about that (the reasons behind drug use), is like a seed gets planted in your head and when you do use you know that there is a different way and when you had little bits of treatment here and there it kind of messes up with your using

Maria, acknolwedges that when issues are pointed out in treatment, reflection cannot be avoided (*Once you get told about that, is like a seed gets planted in your head*). Users in recovery often identified the reasons behind their use as a way of coping with a particular problem. Maria, having identified the lack of acceptance as her main reason for taking heroine, in an earlier part of her interview, now tells us that what is told in treatment sessions challenges individual beliefs about coping strategies (*when you do use you know that there is a different way*). This knowledge, in turn, changes the way one experiences the highs of a substance, as their main reason for using has been questioned *(it kind of messes up with your using*). Maria went on to describe that this initial knowledge gradually built from '*little bits of treatment here and there'*, which also affected the way she experienced episodes relapse, as she could distance herself more and reflect on why she went back to using every time.

Although long term recovery is a well-established outcome, the cycle of relapse and abstinence is also well known to researchers and clinicians (Lash, Petersen, O'Connor Jr, & Lehmann, 2001; McKay et al., 1997). However, as argued above, relapse has usually been regarded as a result of treatment ineffectiveness, users' lack of motivation to change or simply either treatments' or individual failure. Relapse, as presented in this article, is commonly found in substance using trajectories but is argued not to be the result of a problem or failure of treatment, but should be rather seen as an intrinsic part of a process through which knowledge that leads to recovery is gathered.

5. Discussion

This paper focused in the exploration of the directionality of recovery and highlights change as a discontinuous, non-linear, long-lasting process manifested in alternating episodes of abstinence and relapse. Relapse, even though it may have been experienced as a failure, viewed in the context of the overall process appeared to contribute to rather than hinder change. In fact, both the process as well as the value of relapse or treatment were understood only when viewed as a part of the whole trajectory. Active users who had previously had some contact with treatment agencies and early recovery users described this phase of subsequent episodes of relapse and abstinence as particularly overwhelming, expressing a fatalistic fear of change being unattainable, despite their best efforts. Users in sustained and stable recovery, however, specifically pointed at this phase as containing crucial opportunities for learning better strategies to cope with both the reasons that had driven them toward using and the craving for the substance as such. One of the advantages of the study design was the inclusion of participants at different stages of recovery in a spectrum ranging from active users to individuals who had been in recovery for 10 years. This range of participants across a broad temporal spectrum of active use and recovery, allowed for the examination of the way a certain stage in the process of recovery is experienced in real time, and how it is interpreted retrospectively. Participants in sustained and stable recovery clearly identified differences in successive stages of relapse after the 'seeds of change' had been planted; they would analyse their own behaviours and the reasons for it even when they slipped back into use, and each new period of abstinence would come with a new quality of awareness.

In all cases of recovering users, change was not constructed as immediate, sudden or linear. It is clear from the trajectories presented above that discontinuities, ups and downs and the rise and fall-from different points every time are a common theme in recovery stories. Patterns of recovery appear unique to every individual and although treatment did not appear to secure a radical change, it contributed to recovery with a cumulative rather than immediate effect. It has been argued before that no single treatment for alcoholism appears to be superior than others, but different treatments and

perhaps the combination of treatments over time have something promising to offer (Miller et al., 1995).

The discontinuous movement observed in the trajectories of the interviewees can be regarded as part of a self-organising process that becomes stabilised gradually through regressive and progressive movements. Periods of ups and downs are the result of new incoming information that disrupt the stability and normality of the learnt addictive behaviour, similar to the chaotic behaviour that precedes positive change as observed in open systems. Recovery was constructed as a gradual and temporally distributed process not divided into linear or even distinct progressive stages, but rather occurring in a back-and-forth movement, a process through which new connections are made through information gathered slowly. Small steps, here non-linear movements, can lead to long term change. On the other hand, individuals like Matt, who do not import new feedback from their environment, exhibit a stable, 'closed system' pattern of behaviour and as there is no new incoming information, the addictive behaviour remains unaffected and does not promote any movement that might otherwise lead to change. The findings agree with West's argument that psychological systems are constantly rebalancing and adapting with the input of new information. Redirection towards new pathways (change in this instance), takes place either suddenly or gradually. However, this process in West's theory proceeds only 'forward', while regressive movements (relapses) are not taken into account. It would be also worth noting that not all human beings are exposed to the same breadth of information that would enable a redirection in their pathway.

It is not customary to accept chaos and discontinuity as signs of progression and growth (Hager, 1992). However, the only trajectory that appeared as linear and continuous was the one found in active users that had made no attempt to cease their drug use. As these participants had never been in touch with treatment services and their social group consisted exclusively or mostly of active users, it can be argued that the lack of influx of information that would challenge their beliefs and reasons for using, prevented the initiation of any process or motivation to change.

6. Conclusion

This research had some key limitations. Firstly, the sample was small and not representative of all kinds of drug-using populations and results were not interpreted according to individuals' drug of choice. Moreover, most of the users in recovery came from a similar socio-cultural treatment environment. Finally, users who had naturally

recovered have not been included in the sample of this study. An additional problem was the definition of 'recovery' and the different interpretations by the participants.

The starting point of this article was to explore narrative constructs of the process of change from addiction to recovery. Findings of the current study reveal change as a non-linear process full of discontinuities, manifested in patterns of interchangeable states of relapse and abstinence or treatment attempts. This process appeared initially as chaotic but-in later stages of recovery-understood as an integral part of the process that precedes change.

The representation of the process of change as non-linear demonstrates the need for a move from the conventional essentialist (rather than systemic) view that sees interventions as doing something "to" the individual in order to cause changes "in" the individual. Relapse does not simply identify the failure of an individual to comply with a specific treatment or failure of the treatment itself. The fluctuations across drug using trajectories might indicate that an individual is going through a process of altering a long held coping strategy, which could potentially be successful if supported accordingly. Change does not appear to take place immediately after treatment and there is no panacea for addiction, or pill for recovery. In this context, it can be argued that relapse and discontinuity can be part of the process of change itself. Indeed, interpretation of relapse as failure might have further implications (Mille, 1996) such as the possibility of an increase in addictive behaviour, something which could have been avoided if relapse was considered as 'norm al' and was accompanied by the appropriate support. Such individually tailored support would tend to increase individuals' adherence to treatment services and could in addition lead to further awareness if reasons behind this relapse were explored.

Questions on linearity of change are not solely of a philosophical or theoretical nature but have implications for research and practice. There is a need to rethink how change is conceptualised and measured. Disregarding long-term effects and potential positive outcomes and attributing failure to users who are in the initial process of building up necessary experience, reliance on pre-post measures could lead to false conclusions. Periods of discontinuity preceding stabilisation of change last a lot longer than a short-term research design can capture. Therefore, measuring points in time that are part of the process of change and are still inside the discontinuous pattern before their stabilisation and regarding it as a definite outcome, creates questions about the validity of such results. The way funding for treatment evaluations is established, including a need for fast results that demand proof of effectiveness and changed patients soon after the end

of treatment, leaves little room for deviation from outcome focused research designs. However, there is a need to decide whether we wish to produce results that are fast or that more adequately capture the complexities of the change process.

7. References

Abdul-Quader, A. S., Heckathorn, D. D., McKnight, C., Bramson, H., Nemeth, C., Sabin, K., . . . Des Jarlais, D. C. (2006). Effectiveness of Respondent-Driven Sampling for Recruiting Drug Users in New York City: Findings from a Pilot Study. *Journal of Urban Health, 83*(3), 459-476. doi: 10.1007/s11524-006-9052-7.

Antaki, C., Condor, S., & Levine, M. (1996). Social identities in talk: Speakers' own orientations. *British Journal of Social Psychology, 35,* 473-492.

Atkinson, P., & Coffey, A. (2003). Revisiting the relationship between participant observation and interviewing. In J. F. Gubriam & J. A. Holstein (Eds.), *Postmodern interviewing* (pp. 109-122). Thousand Oaks, CA: SAGE

Baumeister, R. F. (1994). The crystallization of discontent in the process of major life change. In T. F. Heatherton & J. L. Weinberger (Eds.), *Can personality change?* (pp. 281-297). Washington, DC: American Psychological Association.

Bien, T. H. (2004). Quantum change and psychotherapy. *Journal of Clinical Psychology, 60*(5), 493-501. doi: 10.1002/jclp.20003

Biernacki, P. (1986). *Pathways from Heroin Addiction: Recovery Without Treatment*. Philadelphia: Temple University Press.

Blomqvist, J. (1996). Paths to Recovery from Substance Misuse: Change of Lifestyle and the Role of Treatment. *Substance Use & Misuse, 31*(13), 1807-1852. doi: 10.3109/10826089609064002

Blomqvist, J. (1999). Treated and Untreated Recovery from Alcohol Misuse: Environmental Influences and Perceived Reasons for Change. *Substance Use & Misuse, 34*(10), 1371-1406. doi:10.3109/10826089909029389

Blackburn, S. (2008). *Oxford Dictionary of Philosophy*. New York: Oxford University Press.

Bringmann, L. F., & Eronen, M. I. (2016). Heating up the measurement debate: What psychologists can learn from the history of physics. *Theory & Psychology, 26*(1), 27-43. doi: 10.1177/0959354315617253

Bruner, J. S. (1991). *Acts of meaning*. Harvard University Press.

Bruner, J. S. (2003). *Making Stories: Law, Literature, Life*. New York: Harvard University Press.

Bruner, J. (2004). Life as Narrative. *Social Research 71*(3), 691-710.

Burrowes, N., & Needs, A. Time to contemplate change? A framework for assessing readiness to change with offenders. *Aggression and Violent Behavior, 14*(1), 39-49. doi: 10.1016/j.avb.2008.08.003

Campbell, J. K., O'Rourke, M., & Silverstein, H. S. (2010). *Time and identity*: MIT Press.

Chernyakov, A. (2002). *The Ontology of Time: Being and Time in the Philosophies of Aristotle, Husserl and Heidegger* (Vol. 163). Springer Science & Business Media.

DiClemente, C. C. (2006). Natural Change and the Troublesome Use of Substances: A Life-Course Perspective. In W. R. Miller & K. M. Carroll (Eds.), *Rethinking substance abuse: What the science shows, and what we should do about it* (pp. 81-96). New York, NY, US: Guilford Press

DiClemente, C. C., Bellino, L. E., & Neavins, T. M. (1999). Motivation for change and alcoholism treatment. *Alcohol Research & Health, 23*(2), 86-92.

Edwards, G., Orford, J., Egert, S., Guthrie, S., Hawker, A., Hensman, C., . . . Taylor, C. (1977). Alcoholism: A controlled trial of 'treatment' and 'advice.' *Journal of Studies on Alcohol*, *38*, 1004–1031.

Ellingstad, T. P., Sobell, L. C., Sobell, M. B., Eickleberry, L., & Golden, C. J. (2006). Self-change: A pathway to cannabis abuse resolution. *Addictive Behaviors, 31*(3), 519-530. doi: 10.1016/j.addbeh.2005.05.033

Elliott, J. (2005). *Using Narrative in Social Research: Qualitative and Quantitative Approaches*: SAGE Publications.

Fasulo, A. (2007). Theories of self in psychotherapeutic narratives. In M. G. W. Bamberg, A. D. Fina & D. Schiffrin (Eds.), *Selves and identities in narrative and discourse* (pp. 325): John Benjamins Pub.

Fleetwood, J. (2013). Keeping out of trouble: Female crack cocaine dealers in England. *European Journal of Criminology*. doi: 10.1177/1477370813491177

Flick, U. (1999). Social constructions of change: qualitative methods for analysing developmental processes. *Social Science Information, 38*(4), 631-658. doi: 10.1177/053901899038004007

Gergen, K. J., & Gergen, M. M. (1983). Narratives of the self. In T. R. Sarbin & K. E. Scheibe (Eds.), *Studies in social identity* (pp. 254-273). New York: Praeger.

Gianakis, M., & Carey, T. A. (2011). An interview study investigating experiences of psychological change without psychotherapy. *Psychology and Psychotherapy: Theory, Research and Practice, 84*(4), 442-457. doi: 10.1111/j.2044-8341.2010.02002.x

Gleick, J. (1987). *Chaos: Making a New Science.* New York: Penguin.

Goerner, S. (1994). *Chaos and the evolving ecological universe.* Langhorne, PA: Gordon and Breach.

Gossop, M., Stewart, D., Treacy, S., & Marsden, J. (2002). A prospective study of mortality among drug misusers during a 4-year period after seeking treatment. *Addiction, 97*(1), 39-47. doi: 10.1046/j.1360-0443.2002.00079.x

Granfield R., & Cloud, W. (1996). The elephant that no one sees: Natural recovery among middle-class addicts. *Journal of Drug Issues, 26*(1), 45-61.

Hager, D. L. (1992). Chaos and growth. *Psychotherapy: Theory, Research, Practice, Training, 29*(3), 378-384. doi: 10.1037/h0088539

Hammer, E. (2011). *Philosophy and temporality from Kant to critical theory*. Cambridge University Press.

Hayes, A. M., Laurenceau, J.-P., Feldman, G., Strauss, J. L., & Cardaciotto, L. (2007). Change is not always linear: The study of nonlinear and discontinuous patterns of change in psychotherapy. *Clinical Psychology Review, 27*(6), 715-723. doi: 10.1016/j.cpr.2007.01.008

Heckathorn, D. D. (1997). Respondent-Driven Sampling: A new Approach to the Study of Hidden Populations. *Social Problems, 44*(2), 174-199.

Ilardi, S. S., & Craighead, W. E. (1994). The Role of Nonspecific Factors in Cognitive-Behavior Therapy for Depression. *Clinical Psychology: Science and Practice, 1*(2), 138-155. doi: 10.1111/j.1468-2850.1994.tb00016.x

Jin, H., Rourke, S. B., Patterson, T. L., Taylor, M. J. & Grant, I. (1998). Predictors of relapse in long-term abstinent alcoholics. *Journal of Studies on Alcohol, 59*(6), 640-646.

Jones, A., Donmall, M., Millar, T., Moody, A., Weston, S., Anderson, T., . . . J., D. S. (2009). *The Drug Treatment Outcomes Research Study (DTORS): Final outcomes report.* London: Home Office.

Kahn, C. H. (2013). *Plato and the Post-Socratic Dialogue: The Return to the Philosophy of Nature*: Cambridge University Press.
Kelso, J. A. S. (1995). *Dynamic Patterns: The Self-Organization of Brain and Behavior*: Cambridge, MA: Mit Press
Kincanon, E., & Powel, W. (1995). Chaotic analysis in psychology and psychoanalysis. *Journal of Psychology, 129*(5), 495.
Klingemann, H. K. H. (1991). The motivation for change from problem alcohol and heroin use. *British Journal of Addiction, 86*(6), 727-744. doi: 10.1111/j.1360-0443.1991.tb03099.x
Kougiali (2015). Reordered Narratives and the Changes in Self-Understanding From Addiction to Recovery. In R. Piazza & A. Fasulo (Eds.), *Marked Identities* (pp. 149-169). Palgrave Macmillan UK.
Labov, W. (1997). Some Further Steps in Narrative Analysis. *Journal of Narrative and Life History*, 7(1-4), 395-415.
Lash, S. J., Petersen, G. E., O'Connor Jr, E. A., & Lehmann, L. P. (2001). Social reinforcement of substance abuse aftercare group therapy attendance. *Journal of Substance Abuse Treatment, 20*(1), 3-8. doi: http://dx.doi.org/10.1016/S0740-5472(00)00140-9
Laurenceau, J.-P., Hayes, A. M., & Feldman, G. C. (2007). Some methodological and statistical issues in the study of change processes in psychotherapy. *Clinical Psychology Review, 27*(6), 682-695. doi: 10.1016/j.cpr.2007.01.007.
Linley, P. A., & Joseph, S. (2004). Positive Change Following Trauma and Adversity: A Review. *Journal of Traumatic Stress, 17*(1), 11-21. doi: 10.1023/B:JOTS.0000014671.27856.7e
Mahoney, M. J. (1982). Psychotherapy and human change processes. In J. H. Harvey & M. M. Parks (Eds.), *Psychotherapy research and behavior change* (pp. 77-122). Washington, DC: American Psychological Association.
McIntosh, J., Bloor, M., & Robertson, M. (2008). The health benefits of reductions in individuals' use of illegal drugs. *Journal of Substance Use, 13*(4), 247-254. doi: doi:10.1080/14659890701802836
McIntosh, J., & McKeganey, N. (2000). Addicts' narratives of recovery from drug use: constructing a non-addict identity. *Social Science & Medicine, 50*(10), 1501-1510. doi: 10.1016/s0277-9536(99)00409-8
McAdams, D. (1993). *The stories we live by*. New York: Morrow.
McKay, J. R., Alterman, A. I., Cacciola, J. S., Rutherford, M. J., O'Brien, C. P., & Koppenhaver, J. (1997). Group counselling versus individualized relapse prevention aftercare following intensive outpatient treatment for cocaine dependence: Initial results. *Journal of Consulting and Clinical Psychology, 65*(5), 778-788. doi: 10.1037/0022-006x.65.5.778
Miller, W. R. (1996). What is a relapse? Fifty ways to leave the wagon. *Addiction, 91*(suppl.), 15-28. doi: 10.1046/j.1360-0443.91.12s1.6.x
Miller, W. R. (2004). The phenomenon of quantum change. *Journal of Clinical Psychology, 60*(5), 453-460. doi: 10.1002/jclp.20000
Miller, W. R., Brown, J. M., Simpson, T. L., Handmaker, N. S., Bien, T. H., Luckie, L. F., . . . Tonigan, J. S. (1995). What works? A methodological analysis of the alcohol treatment outcome literature. In R. K. H. W. R. Miller (Ed.), *Handbook of alcoholism treatment approaches: Effective alternatives (2nd ed.)* (pp. 12-44). Needham Heights, MA, US: Allyn & Bacon.

Miller, W. R., & C'DeBaca, J. (1994). Quantum change: Toward a psychology of transformation. In T. F. Heatherton & J. L. Weinberger (Eds.), *Can personality change?* (pp. 253-280). Washington, DC, US: American Psychological Association.

Miller, W., & C'de Baca, J. (2001). *Quantum Change: When Epiphanies and Sudden Insights Transform Ordinary Lives*. New York: Guillford.

Orford, J. (2008). Asking the right questions in the right way: the need for a shift in research on psychological treatments for addiction. *Addiction, 103*(6), 875-885. doi: 10.1111/j.1360-0443.2007.02092.x

Pachankis, J. E., & Goldfried, M. R. (2007). On the next generation of process research. *Clinical Psychology Review, 27*(6), 760-768. doi: http://dx.doi.org/10.1016/j.cpr.2007.01.009

Pawson, R., & Tilley, N. (1997). *Realistic Evaluation*: SAGE Publications.

Parker, R. M., Schaller, J., & Hansmann, S. (2003). Catastrophe, Chaos, and Complexity Models and Psychosocial Adjustment to Disability. *Rehabilitation Counselling Bulletin, 46*(4), 234-241. doi:10.1177/003435520304600404

Pomerantz, A. (1986). Extreme case formulations: A way of legitimizing claims. *Human studies*, *9*(2-3), 219-229.

Presser, L. (2008). *Been a heavy life: Stories of violent men.* Urbana, IL: University of Illinois Press.

Presser, L. (2009). The narratives of offenders. *Theoretical Criminology, 13*(2), 177-200. doi: 10.1177/1362480609102878

Presser, L., & Sandberg, S. (Eds.). (2015). *Narrative Criminology: Understanding Stories of Crime*. NYU Press.

Prigogine, I., & Stengers, I. (1984). *Order Out of Chaos: Man's New Dialogue with Nature*. New York: Bantam Books.

Prochaska, J. O., & DiClemente, C. C. (1984). *The Transtheoretical Approach: Crossing Traditional Boundaries of Therapy*. Homewood, IL: Dorsey Press.

Prochaska, J. O., Velicer, W. F., DiClemente, C. C., & Fava, J. (1988). Measuring processes of change: Applications to the cessation of smoking. *Journal of Consulting and Clinical Psychology, 56*(4), 520-528. doi: 10.1037/0022-006x.56.4.520

Riessman, C. K. (2008). *Narrative Methods for the Human Sciences*. Thousand Oaks, CA: SAGE Publications

Robins, L. N. (1973). *The Vietnam drug user returns*. Washington, DC: U.S. Government Printing Office.

Robinson, W. T., Risser, J. M. H., McGoy, S., Becker, A. B., Rehman, H., Jefferson, M., . . . Tortu, S. (2006). Recruiting Injection Drug Users: A Three-Site Comparison of Results and Experiences with Respondent-Driven and Targeted Sampling Procedures. *Journal of Urban Health, 83*(S1), 29-38. doi: 10.1007/s11524-006-9100-3

Rounsaville, B. J., Kosten, T. R., & Kleber, H. D. (1987). The Antecedents and Benefits of Achieving Abstinence in Opioid Addicts: A 2.5-Year Follow-up Study. *The American Journal of Drug and Alcohol Abuse, 13*(3), 213-229. doi: 10.3109/00952998709001511

Rush, A. J., Kovacs, M., Beck, A. T., Weissenburger, J., & Hollon, S. D. (1981). Differential effects of cognitive therapy and pharmacotherapy on depressive symptoms. *Journal of affective disorders, 3*(3), 221-229. doi: http://dx.doi.org/10.1016/0165-0327(81)90024-0

Sandberg, S. (2010). What can "lies" tell us about life? Notes towards a framework of narrative criminology. *Journal of Criminal Justice Education*, *21*(4), 447-465.

Sarbin, T. R. (1986). *Narrative Psychology: The Storied Nature of Human Conduct*: Praeger.

Simpson, D. D., & Sells, S. B. (1990). *Opioid addiction and treatment: a 12-year follow-up*. Malabar, Florida: R.E. Krieger.
Sobell, L. C., Cunninghamm, J. A., & Sobell, M. B. (1996). Recovery from alcohol problems with and without treatment: Prevalence in two population surveys. *American Journal of Public Health, 86*(7), 966-972. doi: 10.2105/ajph.86.7.966
Sobell, L. C., Ellingstad, T. P., & Sobell, M. B. (2000). Natural recovery from alcohol and drug problems: methodological review of the research with suggestions for future directions. *Addiction, 95*(5), 749-764. doi: 10.1046/j.1360-0443.2000.95574911.x
Spence, D. P. (1984). *Narrative truth and historical truth: Meaning and interpretation in psychoanalysis*: WW Norton & Company.
Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic Growth: Conceptual Foundations and Empirical Evidence. *Psychological Inquiry, 15*(1), 1-18. doi: 10.1207/s15327965pli1501_01
The Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment, 33*(3), 221-228.
Vaillant, G. E. (1996). A long-term follow-up of male alcohol abuse. *Archives of General Psychiatry*, *53*(3), 243-249.
Von Bertalanffy, L. (1969). General systems theory and psychiatry–an overview. In W. Gray, F. J. Duhl & N.D. Rizzo (Eds.), *General systems theory and psychiatry*. (pp. 33-46) GBR: Little Brown.
Waldorf, D., Reinarman, C., & Murphy, S. (1991). *Cocaine changes: The experience of using and quitting*. Philadelphia: Temple University Press.
Watters, J. K., & Biernacki, P. (1989). Targeted sampling: options for the study of hidden populations. *Social problems*, 416-430.
West, R. (2005). Time for a change: putting the Transtheoretical (Stages of Change) Model to rest. *Addiction, 100*(8), 1036-1039. doi: 10.1111/j.1360-0443.2005.01139.x
West, R., & Hardy, A. (2006). *Theory of Addiction*: Wiley.
White, W. L. (2007). Addiction recovery: Its definition and conceptual boundaries. *Journal of Substance Abuse Treatment, 33*(3), 229-241. doi: 10.1016/j.jsat.2007.04.015
Wilson, E. (1998). *Consilience: The unity of knowledge.* New York: Knopf.
Witkiewitz, K., & Marlatt, G. A. (2007). Modelling the complexity of post-treatment drinking: It's a rocky road to relapse. *Clinical Psychology Review, 27*(6), 724-738. doi: 10.1016/j.cpr.2007.01.002)

[i] Metaphysics is the term applied when questioning issues related to the definition of reality that go beyond those that can be addressed by scientific methods (for example being, causation, categories of things that exist). Ontology is closely related to and can be considered as a branch of metaphysics (Blackburn, 2008:232, 260). Ontology is mostly concerned with what exists, etymologically deriving from the Greek word οντολογία whereby the *ὄν* refers to something which is/exists (authors' translation).

[ii] the phrase '*πάντα χωρεῖ καὶ οὐδὲν μένει' is attributed to Heraclitus translated into 'everything is moving and nothing stays the same', found in* Plato's *Cratylus* (402a). (Kahn, 2013; Campbell, O'Rourke & Silverstein, 2010). Time and identity.)