CONCEPTUALIZING UNEMPLOYMENT IN A PERIOD OF ATYPICAL EMPLOYMENT: A CRITICAL REALIST PERSPECTIVE

Introduction

The UK economy is generating jobs at an increasingly rapid pace...The headline rate of seasonally adjusted unemployment fell by 36,500 in June to 1.6m, pushing the rate of unemployment down from 5.8 to 5.7 percent...The government welcomed the figures as evidence of an improving labour market (Financial Times, 17 July 1997).

Reports like this, drawing upon official unemployment figures, are hotly debated. Much ink has been spilled on problems associated with understanding what these figures actually mean, especially the issue of ascertaining who should and should not be included in the unemployed count (cf. Wells 1995; Hughes 1995, Convey 1996). Whilst issues such as these are far from trivial, there are two other relatively unexplored issues that pose far greater problems for interpreting the unemployment figures.

The first issue turns on the relationship between *un*employment and *em*ployment - a relationship that has become even more significant due to the (re)emergence of *atypical* employment. If to be *un*employed is to be without *em*ployment, a *job* or *work*, then *un*employment becomes the *other*, or *absence*, of *em*ployment. This distinction makes the reality of *un*employment partly dependent upon the nature of the available *em*ployment.¹ If, furthermore, the reality of unemployment is to be adequately expressed in economic theory and subsequently measured, then the concepts used to define and measure *un*employment must take the reality of *em*ployment into account. That is, the conceptualization and measurement of *un*employment must adequately grasp the reality of *em*ployment. This leads to the second issue.

Designing theoretical concepts that adequately express reality rests (minimally) upon the adoption of appropriate *ontological, philosophical* and *methodological* foundations.² Adoption

¹The categories of employment and unemployment are treated throughout as concept *dependent*, but not concept *determined*. That is, they refer to objective states of affairs, which are overlaid with subjective meaning for those experiencing these states. Put simply, one is not free to subjectively 'think' oneself into employment. To refer, then, to the '*reality*' of employment or unemployment does not require the rider 'for person x'.

²For ease of exposition, and unless it is necessary to do otherwise, I will refer to these three phenomena using the umbrella term 'methodological'. Ontology refers to a theory of the nature of reality. Note that

of an inappropriate method raises the strong possibility that one's theoretical concepts will fail to express adequately the reality under investigation.

The objective of this paper, then, is to integrate these two relatively unexplored issues in order to demonstrate how the method adopted by mainstream economists encourages the inadequate conceptualization of employment, and, thereby, the inadequate conceptualization and measurement of unemployment.

- ◆ Part 1 introduces the methodological perspective of *critical realism*³ to identify and locate the source of the methodological problems encountered by mainstream economists. Whilst one does not need critical realism merely to *show* that mainstream economics is preoccupied with quantification and is unable to (*meaningfully*) deal with the kind of qualitative issues that arise when investigating atypical employment one does need it to *explain*, this state of affairs. Critical realism explains why the use of a particular (i.e. deductive) method means that theoretical concepts have to be constructed in such a way as to reduce the multi-dimensional, *qualitative* reality of employment and unemployment to the *quantitative*, single dimension of *variables*, whereupon they cease to be adequate expressions of the reality they are designed to investigate.
- ◆ Part 2 turns from methodology to labour economics and firmly establishes the connection between *em*ployment, and the conceptualization and measurement of *un*employment. The concept of *under*employment illustrates how a partial lack of employment fails to appear in unemployment figures.
- ◆ Part 3 extends the discussion of labour economics by using part-time employment as an *example* of atypical employment to illustrate how the latter differs significantly from typical employment in a number of dimensions, *most of which are qualitative in nature*. Once the

everyone adopts an ontology, irrespective of whether one is conscious of it or not. The only point of discussion, then, is about the nature of that ontology, that is, about what kinds of things one presumes to exist - e.g. individuals, equilibria, wholes, events, tendencies, relations and so on.

³ For a positive elaboration of critical realism within economics see Lawson (1997) and Fleetwood (1995). For critical elaboration see Boylan and O'Gorman (1995); Parsons (1996). For recent developments and debates from various contributors see Fleetwood (1998).

multi-dimensional and qualitative nature of atypical employment is firmly established, the full force of the methodological critique developed in part 1 is unleashed.

◆ Part 4 draws together methodology and labour economics to demonstrate the implications that the critical realist perspective has for the interpretation of contemporary unemployment figures.

1. Philosophy and Methodology

Lawson (1997) has argued provocatively that the dominant mode of economic theorising consists in the use of a particular method, namely *deductivism*. Deductivism appears, generally, in the guise of the deductive-nomological (DN), or covering law, model of explanation, whereby to 'explain' something is to deduce a statement about that something from a set of initial conditions, assumptions, axioms, and a set of event regularities that constitute a covering law – of which more in a moment.

From the critical realist perspective, deductivism gets what support it does from the philosophy of science referred to as *positivism* and from the *ontology* referred to as *empirical realism*. The ensemble of deductivist method, positivist philosophy and empirical realist ontology combine as follows:⁴

- ♦ Although positivism prioritizes epistemology, ontology is not banished. An implicit ontology is concealed consisting of the objects of sense experience. Reality is reduced to knowledge about what is experienced. The ontology is, therefore, of the *events* of sense impression.
- ◆ What are experienced are unique, unconnected, atomistic episodes or events. These events cannot be other than atomistic, since any connection or relation between them is impervious to experience otherwise the nature of those connections would require prior explanation, thus undermining the explanatory power of sense data. The ontology is not only of events, then, it is of atomistic events.

⁴For ease of exposition, henceforth I will simply refer to empirical realist ontology, positivist philosophy of science and the deductivist method they engender simply as the deductivist method.

- ♦ If *particular* knowledge of reality is gained through experiencing atomistic events, then *general*, including scientific, knowledge must be of the constant patterns, if any, that these events reveal. Knowledge is acquired by observing and recording constant conjunctions of atomistic events.
- ♦ Scientific knowledge is, therefore, completely reliant upon the existence and ubiquity of constant patterns, regularities, or *constant conjunctions*, *of events* atomistically situated. Where there are no constant conjunctions of events to be observed and recorded, scientific knowledge is not available.
- ♦ From the deductivist perspective, constant conjunctions of events translate into covering laws, and may be styled: 'whenever event x then event y'.

Whilst constant conjunctions of events are fundamental to deductivism, they as exceptionally rare phenomena. There appear to be very few spontaneously occurring systems wherein constant conjunctions of events occur in the natural world, and virtually none in the social world. That is not to deny the possibility that constant conjunctions may occur accidentally, or over some restricted spatio-temporal region, or be trivial. But virtually all of the constant conjunctions of interest to science only occur in experimental situations. In such situations, a very special system is generated, namely a *closed system*.

In a closed system, events are actively *engineered* to be constantly conjoined in the sense that for every event y, there exists a set of events $x_1,x_2...x_n$, such that y and $x_1,x_2...x_n$ are regularly conjoined. Each set of causes (x_i) , always produces the same effect (y); and each effect (y), always has the same set of causes (x_i) .

In natural science, the point of experiment is to *close the system* by creating a particular set of conditions that will isolate the one interesting mechanism. This mechanism is then allowed to operate unimpeded and the results, the constant conjunctions, recorded. In social science, and economics in particular, constant conjunctions of events appear to be found only in the "conceptual experiments" (Pencavel 1994: 14), that constitute theoretically closed systems.

Unfortunately, natural or social scientists who adopt the deductivist method face the following problematic and counterintuitive implications:

- a) Outside closed systems, where constant conjunctions of events are not usually found, one would have to conclude that there are no laws. This would be tantamount to saying that nothing governs the (non-constant) flux of events in open systems; science would, then, become a fruitless endeavor.
- b) It is often the case that conclusions derived from experimental situations (i.e. in closed systems) are successfully applied outside experimental situations (i.e. in open systems). Because of (a) above, this state of affairs would have no valid explanation.
- c) The obvious problem of how one may, justifiably, claim anything about a reality that constitutes an open system from an analysis of a closed system has never been *seriously* addressed by mainstream economists. In fact, deducing statements about the action of agents operating in a closed system, and transferring them to the action of agents in the open system, commits the fallacy called *ignoratio elenchi*. This entails "assuming that one has demonstrated something to be true of X when the argument or evidence really applies to Y which is not the same as X in some respect" (Gordon 1991: 108). What is "not the same" is the existence and ubiquity of constant conjunctions of events.

Despite these problematic and counterintuitive implications rendering the deductive method singularly inappropriate for the analysis of open systems, (i.e. virtually all socio-economic systems) deductivism prevails. Moreover, deductivism's crucial need to engineer closed systems impacts negatively on the way the theoretical concepts are constructed. And this is true for the inadequate concepts constructed to investigate unemployment and atypical employment.

Before discussing inadequate conceptions, the following point is worth making to avoid confusion. Although the argument has been developed from the practice of natural science, its is applicable to social science in general, and mainstream economics in particular, for two reasons. First, mainstream economists readily admit to using (what they assume to be) the method of natural science. Second, and more importantly, if human agency is real, then (a) human agents could always have acted otherwise, and

(b) human action must make a difference to the social world. If, minimally, (a) and (b) are accepted, the social world cannot be a closed system and any attempt to model it 'as if' it was leads to the kind of problematic and counterintuitive implications just noted.

1.2 From closed systems to inadequate conceptualizations

Recall that from the deductivist perspective, scientific knowledge is obtained by reducing objects or features of reality to events, and subsequently recording (or hypothesizing) their constant conjunctions. Since constant conjunctions only occur in closed systems, the theoretical components that comprise the system must be framed in such a way that constancy is never threatened. And for this, (at least) two requirements must be sought after:

- a) The events themselves must be identical, that is, episodes of the same kind: 'Whenever event x', implies that a number of episodes of the same kind (x) have occurred.⁵ Event x could, for example, be a change in the number of oranges, apples, or workers employed in a certain job. Whatever event x refers to, all episodes of it have to be identical. The requirement of identity implies a *common* dimension.
- b) These events must be susceptible to quantification and measurement in space and time. This imperative to quantify and measure implies an *unchanging* dimension. If one is adding apples, and the time span is so long that by the time one gets to the end of the barrel, the apples have rotted, and are no longer apples, then the dimension will have changed and (meaningful) addition will become impossible.

The requirements of a *common*, and an *unchanging* dimension are presumed to be met by reconceptualizing, re-defining or reducing events to *variables*, whence changes in their magnitude can be recorded. A variable, in turn, must retain two important features:

- It must possess one, and only one, common and unchanging dimension i.e. number, quantity or magnitude. The only change a variable is permitted to experience is change in this number, quantity or magnitude.
- ii) It must maintain a stable reference to some real object or feature of reality.

Problems arise, however, if the real object to which the variable refers undergoes a *qualitative* change in its nature. If, for example, one is measuring ice cubes with the variable 'width of ice cube' and the temperature rises sufficiently, the qualitative nature of the ice cubes will change. The variable 'width of ice cube' and the object 'ice cube' have in a sense come adrift. The variable, unable to maintain a stable reference to its object, becomes an *inadequate* conceptualization of reality.

Of critical importance for this paper is the obvious consequence that what is true for ice cubes is also true for many economic entities such as employment. Consider the following statement: 'Whenever the magnitude of W (wage) changes, then the magnitude of E (filled jobs) changes. Here one is measuring the reality of employment (which is a qualitative phenomenon) with the variable 'filled jobs' 6 (which is a quantitative phenomenon). But employment, as a qualitative phenomenon, can change. To put matters simply for ease of exposition, 'good quality' employment can become 'poor quality' employment and *vice versa*. If this occurs, if the quality of employment changes, whilst the variable 'filled jobs' remains unchanged, then the object 'employment' and the variable 'filled jobs' have in a sense come adrift. The variable, unable to maintain a stable reference to its object, becomes an *inadequate conceptualization of reality*.

Since (as part 3 demonstrates) the nature of employment *is* undergoing a highly significant qualitative change, mainstream economist's are forced onto the horns of a dilemma. They must choose between (a) embracing the qualitative change, violating an important feature of their variable and, therefore, having to re-conceptualize employment; or (b) continuing with their variable, ignoring the qualitative change, and proceeding with an *inadequate* conceptualization of employment. Let me elaborate this important point.

a) If mainstream economists wish to embrace qualitative change in employment, and if the variable 'filled jobs', is to continue to maintain stable reference to its object, then the variable will have to undergo a qualitative change. Some other way will, then, have to be

⁵The same applies, of course, to the event y's.

⁶ Whilst the precise specification of the variable used to capture employment varies (e.g. based upon employers surveys, labour force surveys, national accounts) all that is needed for our purposes is a generic category such as 'jobs filled'. Specifying the variable more precisely would not effect the basic argument of this paper.

found for adequately conceptualizing employment. But as noted in (i) above, this will violate one of the important features of a variable because a variable can undergo qualitative but not quantitative change.

b) If mainstream economists wish to continue with the variable 'filled jobs', they will have to ignore qualitative change in employment and hence proceed with an *inadequate* conceptualization of employment.

It is important to note that the deductive method is setting the agenda of theoretical discourse, forcing the economist to choose between embracing or ignoring qualitative change. Typically, mainstream economists, not wishing to abandon the deductive method, have no option but to opt for the latter. The result is a set of theoretical concepts, variables, that are totally devoid of qualitative content or properties and in this form, however, they are useless devices for an inquiry into reality.

Now, it is worth noting that whilst critical realism is avowedly anti-empiricist, it is not anti-empirical. Clearly some qualitative aspects of employment can be quantified and measured relatively straightforwardly - for example the number of jobs held by one person.⁸ Other qualitative dimensions can be quantified and measured, although not straightforwardly, by finding proxy variables, or by constructing suitable indices. An example of this might be the way employment insecurity is often measured by the number of years an employee has held the same job. But even here, (see part 3 section e below) qualitative issues start to creep into the picture casting doubt on the meaningfulness of the measurement.⁹ However, and this is the

⁷ Take for example, Layard, Nickel and Jackman's (1992) highly influential work on unemployment and the labour market. Is it not odd that such an extensive work on the labour market ignores atypical employment? Whilst the authors cannot possibly be unaware of this phenomenon, there is no way that such a qualitative, multidimensional reality can (meaningfully) be reduced to the single dimension of a variable and accommodated within the main equations they use to investigate unemployment. Their attachment to deductivism sets a truncated, and thereby inadequate, theoretical agenda. Rice (1990) is typical of the (few) treatments of atypical employment by mainstream economists: part-time employment is reduced to a variable and treated as a function of another variable, in this case, national insurance contributions.

⁸Even here, thought, measurement does not reveal things like the attitude of the worker towards (say) the second job. And this is likely to have serious implications for issues that are of interest to labour economists such as the investigation of things like productivity levels in second (and increasingly third) jobs.

⁹It is worth bearing in mind that anything and everything can, in a sense, be measured by proxies and indices. No doubt one could 'measure' the beauty of the Mona Lisa with suitable statistical devices. But, would such a measure actually mean anything? My suspicion is that in their desire to quantify, many

crucial point, the mainstream economist's use of the deductivist method, and hence the imperative to quantify and measure, forecloses avenues of investigation and analysis for (at least) two reasons.

First, the mainstream economist, motivated by a desire to quantify and measure, simply has no way of discovering relevant qualitative phenomena. How, for example, would a mainstream economist ever discover the inferior nature of many part-time employees' pension schemes? Things of this nature can only be discovered by sociological or anthropological methods (such as in-depth interviews or participant observation) which are, typically, eschewed by mainstream economists on the grounds that they are not 'scientific' - i.e. are not based upon the deductive method.

Second, even if this mainstream economist (somehow) discovered relevant qualitative phenomena, how might they be quantified and measured? For example, how might one (meaningfully) quantify and measure the hidden sexism of part-time 'family friendly' employment arrangements, let alone their consequences? - see part 3 section j.

In sum then, the deductivist method is inappropriate to the study of socio-economic phenomena (such as the atypical employment and unemployment elaborated upon below) because this method presupposes a *closed-system* whereas these phenomena occur in an *open system*. Furthermore, the need to engineer a *closed system* heavily influences the way the theoretical concepts used to investigate employment and unemployment are constructed. To be more specific, deductivist reasoning requires that the theoretical concepts have to be constructed in such a way so as to reduce the multi-dimensional, qualitative reality of employment and unemployment, first to the level of *events* and second to the quantitative, single dimension of *variables*. As variables, however, these theoretical concepts cease to be adequate expressions of the reality they are designed to investigate.

mainstream economists fail to see that their measures are often meaningless. For example, Shapiro and Stiglitz (1990; 48) use the variable q as a measure of the "probability of being detected shirking". Whilst intuitively the notion that one might get caught shirking is a sensible observation, reducing this complex, multi-dimensional socio-psychological notion to the single-dimension of a variable destroys the sense of the observation and makes the variable meaningless. The same could be said for the common view amongst labour economists such as Booth (1995; 109 passim) that trade union power can be measured (amongst other things) by the level of membership. (See Fleetwood 1999 for a critique of this view). Here again complex, multi-dimensional socio-political phenomena are reduced to the single-dimension of a variable so that they can be measured, whereupon they lose virtually all meaning.

Before we leave methodology, one final point needs to be made. As I mentioned in the introduction, one does not need critical realism merely to *show* that mainstream economics is preoccupied with quantification and is unable to (meaningfully) deal with the kind of qualitative issues that arise when investigating atypical employment: this is a well known criticism. One does, however, need critical realism¹⁰to *explain* this state of affairs.¹¹ Without a critical realist perspective, the explanation of this state of affairs would be *ad hoc*, turning on things like subjective preference, (i.e. a quantitative approach is simply preferred) or lack of sociological sophistication on the part of mainstream economists. With a critical realist perspective, however, the explanation ceases to be *ad hoc*. Once deductivism is adopted, and with it the commitment to closed systems, framing theoretical concepts in quantitative terms becomes almost irresistible, whilst framing them in qualitative terms becomes almost impossible. The methodology generates a kind of theoretical 'lock in' - and, by extension, 'lock out.' ¹²

2. The connection between employment and unemployment

If mainstream economic theory is ill-equipped to deal with qualitative phenomena because of its adherence to deductivism, then investigating the *qualitative* relationship between *un*employment and *em*ployment is bound to be fraught. A testament to this is that the *qualitative* relationship between *un*employment and *em*ployment is hardly ever investigated by mainstream

¹⁰Other methodological perspectives may be of some assistance here, but arguably, to paraphrase a well known lager commercial, critical realism reaches the parts other perspectives cannot reach. For example, whilst Boylan and O'Gorman's (1995) causal holism might be usefully deployed to highlight the lack of descriptive adequacy in the mainstream treatment of atypical employment, it explains neither the preoccupation with quantification, nor why such quantification is inappropriate.

¹¹I would like to thank the anonymous referee for alerting me to this problem.

¹²Note that the discussion of critical realism carries an important message for many Austrian, Institutionalist, Marxist and Post Keynesian economists who, whilst critical of neoclassical economics, are nonetheless unwilling to break completely with deductivism. For example, a paper by Lieberman and Jehle *the Journal of Post Keynesian Economics* uses the deductivist method, closed systems and the reduction of complex aspects of the employment experience to variables - see especially their *fn* 3. Despite the authors' progressive intentions, methodologically speaking there is no difference between their approach that of neoclassical economics.

economists.¹³ This is a significant oversight, because the (re)emergence of *atypical employment* places the quality of employment firmly on the agenda.¹⁴

Lets us leave quality to one side for the moment, and concentrate on reality. If to be *un*employed is to be without *em*ployment, a *job* or *work*, then *un*employment becomes the *other*, or *absence*, of *em*ployment. This distinction makes the reality of *un*employment partly dependent upon the reality of *em*ployment. If, furthermore, the reality of unemployment is to be adequately expressed in economic theory and subsequently (meaningfully) measured, then the concepts used to define and measure *un*employment must take the reality of *em*ployment into account. The conceptualization and measurement of *un*employment must, therefore, adequately grasp the reality of *em*ployment. The following caricature might drive the point home. It is most unlikely that a person would be classified, and measured, as unemployed if the only alternative was 'employment' in the form of slavery. The traditional conceptualization and measurement of unemployment would be radically altered by the reality of 'employment'.

Bringing quality back into the picture, it appears that the conceptualization and measurement of *un*employment must adequately grasp the qualitative reality of *em*ployment. Given that (as part 3 will show) employment increasingly comes in qualitatively different forms, the *quality* of employment must, on pain of irrelevance, become a legitimate issue for conceptualizing and measuring unemployment. If one is content to merely count heads, the quality of employment will be of no concern: an individual either has or does not have a job and will be classified, and

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¹³This is in contrast to the *quantitative* relation such as the recent conundrum where the number of unemployed is falling but the number of employed is not increasing at the same rate. Even here, one report recognized observed: "[o]ne thing these figures can't tell us, however, is how secure these jobs are" (EPI 1995). In other words, *quantitative* forms of analysis can't tell us much about many of the *qualitative* aspects of jobs.

¹⁴ A symposium on unemployment (Glynn and Mayhew 1995) actually carries a paper on qualitative aspects of employment (Gregg and Wadsworth), but the connection between the qualitative aspects of employment and the conceptualization and measurement of unemployment is overlooked. Whilst recent editions of Labour Market Trends, in particular an article by Perry (1996), recognize the existence of "flexible work arrangements", and the LFS now has data on seasonal contracts, fixed term work, agency work and causal work, again the connection is omitted. Other publications where one might expect, but do not find, a discussion of this connection include: Metcalf (1992); Coats (1995) and Meadows (1996). Blank (1990: 123) is one of the few to touch upon the connection, noting that at "its worst, part-time work may be considered a form of disguised unemployment".

¹⁵The idea that *un*employment is the *other*, or *absence*, of *em*ployment, a job, or work is implicit in the various official definitions of unemployment - i.e. economic activity/inactivity, employees in employment, claimant/LFS unemployed and so on . In a section entitled "The definition of unemployment" Johnson and Briscoe note how the definition of unemployment rests upon "more precise criteria" such as "seeking work, wanting a job; being available for work; and not working" (1995; 104).

counted, as employed or unemployed accordingly.¹⁶ If they have a part-time job, this position may be counted as a fraction of a full-time post.

When, however, one refuses to ignore the fact that not all jobs are alike, more specifically, that atypical and typical jobs are often qualitatively very different, then merely 'having a job' obscures important differences and head-counting becomes, at the very best, one dimension of a multi-dimensional analysis. As Sengenberger puts it:

[T]he definition of full employment...needs to take into account changes in the structure of employment, such as new forms of flexible employment...Measures of unemployment catch only one aspect of the employment problem:...that of total lack of work. Less obvious situations, such as *the partial lack of work...are not accounted for in unemployment statistics at all* (1996, emphasis added).

The category of *underemployment* is designed to catch some of the gray area where employment and unemployment cannot be sharply delineated. A worker is underemployed when employed but this employment is, in some sense, less than adequate. Underemployment is usually discussed via two categories - visible and invisible.

Visible underemployment is so named because it is relatively easy to see, quantify and measure although note the points I made on p 9 about the meaningfulness of measurement. Visible underemployment might occur when a worker is constrained to work fewer hours than he/she desires. *Invisible underemployment* is so named because it is relatively difficult to see, and in some cases impossible to (meaningfully) quantify and measure because, for example, it relates to issues like being (under)employed in a job where one's skills are not being adequately utilized.

It is, however, possible to identify a third form of underemployment which might be called 'poor quality underemployment'. This would occur, for example, if full-time jobs were turned into part-time jobs and the quality of employment deteriorated. Something like 'poor quality

¹⁶ Unfortunately, head counting constitutes a significant proportion of the research done on employment by economists. According to Dilnot: "Economists have many failings but one of the most damaging is the desire to summarize in a single number [i.e. a variable SF] some large and complex part of the economy. That weakness is often seen in discussions of the labour market, when some single measure is used to capture the supposed reality. In the case of the labour market, levels of unemployment are often singled out" (1996: 14). If critical realism is correct, the reason for this failure is rooted in the use of an inappropriate method - deductivism.

underemployment' appears to be crucial for understanding employment and unemployment in the present period. Paraphrasing Sengenberger (above) one could argue that 'partial lack of work, in the form of poor quality underemployment or atypical employment, is not accounted for in unemployment statistics at all'.

In sum, connecting the critical realist discussion of methodology in part one to the discussion of the quality of changing nature of employment in part two throws up two problems for mainstream labour economics. First, it *has not* taken the qualitative transformation in the nature of employment into consideration.¹⁷ Second, as the critical realist critique has established, as long as mainstream economics remains wedded to deductivism it *cannot* (in any meaningful sense) take this qualitative transformation into account. Because it almost impossible to overemphasize the impact of this problem, allow me to make a very bold, if sweeping statement for emphasis. As long as mainstream economics refuses to adopt an alternative method, it is destined to be irrelevant. It will continue to measure changes in variables like 'jobs filled' and 'seeking employment'; and it will continue to predict, (with, if the economy constitutes an open system, little hope of success) changes in the magnitude of these variables. But it will get nowhere near to an understanding of what is actually going on in reality.

3. Atypical employment: the case of part-time work

Now, the foregoing arguments have continually made reference to the qualitative transformation in the nature of employment that is currently taking place. The task of this section is to elaborate upon it.

The multidimensional nature of atypical employment makes it notoriously difficult to define (cf. Casey 1988; Casey et al 1997; Ewing 1996; Pollert 1991; Polivka and Nardone, 1989; Polivka 1996; Roosenthal 1989; Klein 1996). Atypical employment can be conceived under very general headings such as: contingent work, alternative work arrangements, flexible working practices; or under less general headings such as independent contractors, on-call workers, temporary help agency workers, workers provided by contract firms. Atypical employment can also be conceptualized of in specific forms such as: part-time, self-employed, zero hours contracts,

¹⁷ It should be noted that whilst these issues are debated in the pages of Sociology, HRM, Industrial Relations, Organizational Behavior and Management journals, the debate is virtually absent in Economics and Labour Economics journals.

home workers, flexi-time, annualized hours, compressed working weeks, job-share, seasonal workers, workers in special programs for the unemployed and so on.

Since a thorough investigation of the myriad forms of atypical employment is, obviously, beyond the scope of this paper, I opt to investigate atypical employment via the *example* of one of its most common forms, namely *non-contingent part-time employment* - hereafter referred to simply as *part-time* employment.¹⁸ By exploring the reality of part-time employment, I hope to make the following points clear.

First, whilst all forms of employment have an irreducibly qualitative nature (at its simplest, no two jobs are identical), I am trying to establish something more than this. I am trying to capture the profound qualitative changes that are currently occurring in the nature of employment. This can best be done, I suspect, by describing how part-time (atypical) employment differs from full-time (typical) employment in a number of dimensions, most of which are qualitative in nature.

Second once the multi-dimensional and qualitative nature of atypical employment is firmly established, the full force of the methodological critique developed in part 1 is unleashed on mainstream economics. It becomes relatively easy to see why the deductive method leaves mainstream labour economics ill-equipped to deal with qualitative changes in the nature of employment. Emphasis will be placed, therefore, on the nature of these changes and the deterioration, in terms and conditions, that characterize the shift to part-time employment.

In Summer 1998 there were 6.8 million part-time UK workers, that is about 27% of the total workforce. The situation for men is particularly acute. Between 1984 and 1998, male full-time employment fell by 0.16% whilst male part-time employment rose by 117% - the same figures for females reveals 19% and 23% rises respectively (Social Trends 1998).

difficulties arise in adequately conceptualizing *part-time* employment on account of its qualitative and multidimensional nature, these difficulties will be multiplied for those other forms of atypical employment that bear little or no resemblance to typical employment. Second, if I can establish that the emergence of *part-time* employment constitutes a deterioration in the conditions of employment relative to typical employment, then the conditions of employment associated with forms of atypical employment that bear little or no resemblance to

typical employment will constitute a far worse deterioration.

¹⁸Note that in choosing the example of part-time employment I am choosing the most difficult, yet most powerful, case for my argument because this form of atypical employment bears the closest resemblance to typical employment. The advantages of using the most difficult case are two-fold. First, if I can establish that

What is perhaps more significant than absolute numbers, is the fact that the vast majority of entry points into the labour market are dominated by part-time and other forms of atypical employment. Between the Winters of 1992/3 and 1995/6, only 9% of the 750,000 new jobs created were permanent and full time. Half were permanent part-time and a further 15% were temporary part-time (TUC, 1996).

Now, most economic literature on part-time employment tends to be quantitative and statistical, focusing on the average part-timer. Whilst it is interesting to know that part-time work is on the increase, or that mean hourly wages of part-timers is lower than that of full timers, such statistical statements illuminate very little of the reality of the employment experience, and often in fact, disguise far more significant issues. As Tilley puts it: "Behind the averages however, fascinating glimpses of diversity emerge" (1992: 331).

Even the category 'part-time' conceals many differing employment experiences. Tilley, for example, (1992) observes two broad types of part-time employment. *Retention* part-time jobs tend to be found in the primary labour market, and are designed by employers to retain or attract valued workers who prefer to work part-time. *Secondary* part-time jobs tend to be found in the secondary labour market, and are designed by employers to gain advantages of lower compensation and greater scheduling flexibility. To all intents and purposes, retention part-time jobs are often similar in quality not only to full-time jobs, but to typical full-time jobs at that.¹⁹ Since secondary part-time employment involves the largest number of workers, and creates the most problems for those who experience it, part-time secondary employment will be the focus here.

a) Remuneration

There is no shortage of figures on pay for part-timers, although the evidence is mixed and difficult to interpret (Blank 1990). According to McGregor and Sproull (1992), in 90% of the companies they surveyed, hourly rates of pay for part-timers were the same as full-timers; the

¹⁹ As one would expect, the highest paid part-time occupations are professionals, with average hourly earnings (1995) of £13.33, that is, about 20p higher than the equivalent full-time statistic (Osborne 1996: 321). Comparison between this and a male kitchen porter or a female dental nurse's average hourly earnings of £3.82 and £4.22 respectively. (Wood 1995) gives some indication of the differences within the category 'part-time'.

IDS (1993) study shows something similar. The New Earnings Survey (1996), however, reveals that in April 1996, female average gross hourly earnings for all occupations was £5.44 for part-time and £7.50 for full-time.²⁰

Part-timers are highly concentrated in certain occupations such as clerical and secretarial, personal services and sales assistants (Fothergil and Watson 1993: 214). These occupations, part or full-time, tend to be filled primarily, although not exclusively, by women and tend to be low paid. Even within an occupation, part-time employees tend to earn less per hour than their full time counterparts.

b) Over-time pay and the second job

Traditional overtime hours are worked before, or after, the main working day/shift and/or at weekends. Although average paid overtime hours have remained fairly constant over the last two decades, there has been a change in when and how it is performed. *Over-time working increasingly takes the form of a second, and therefore part-time, job.*²¹ Second jobs tend to be paid at normal rather than overtime rates, so any full-timer engaged in overtime in the form of a second job, as opposed to traditional overtime arrangements, experiences a relative loss in hourly pay. Second jobs tend also to be paid at normal rather than unsocial hours rates, so any full or part-timer engaged in overtime in the form of a second job that entails unsocial hours once again experiences a relative loss in hourly pay. Whilst most firms do pay *pro rata* overtime and unsociable hours pay rates, many part timers working set hours that combine both of these categories, by working evening shifts or permanent week-ends for example, often receive less than would be paid to a full-time typical worker. Over-time work in the form of a second job, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

c) Multiple job holding

Multiple job holding is important for understanding part-time employment because when people hold a portfolio of jobs it is likely to consist of a mixture of full and part-time, or a mixture of various part-time jobs. As Dex and McCulloch (1995: 65) put it: "it is possible to argue that

²⁰ I refrain from discussing the issue of whether part-timers earn low pay because of their alleged low productivity or because of the nature of the job (cf. Blank 1990).

²¹There are just under 1.3 million workers with second jobs in the UK (Social Trends 1998).

second job holding is an element of flexible job holding". A survey by the public service union Unison revealed that 38% of the 2,000 cleaning and catering staff at Newcastle Upon Tyne city council had two part-time jobs, while almost 4% had three jobs (Hetherington 1995). Whilst the disadvantages associated with multiple job holding have not been well documented, some of the more obvious are not hard to conceive. They include: increased time spent traveling to work; associated increase in travel costs; and reduced, or in some cases no, paid tea/meal breaks. Multiple job holding, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

d) Non-pay benefits

Part-timers are often disadvantaged relative to full-timers in the same firm in terms of sick pay, pension schemes, bonus or profit share, discount on goods/services, interest free/low loans, subsidized hospital/medical insurance. Part-timers whose normal pattern does not include public holidays usually receive no entitlement to another day off.

In Autumn 1995, 62% of men and 32% of women part-time employees had no paid holiday entitlement; whilst the figures for full-time employees are 7 and 17%, respectively. The average number of days of paid holiday entitlement for part-time employees was 13, and that of full-time employees was 21 (LFS Helpline, May 1996). Furthermore, 17% -23% of firms offered no pension scheme to part-timers, and a further 28% - 37% restrict it to those working more than 16 hours per week.

There is, however, an extremely important point buried within the data on pensions, namely that important qualitative issues are extremely unlikely to be discovered via quantitative analysis. It is not difficult for an economist to obtain data on whether or not a part-time employee is covered by the company pension scheme. But, this is only one aspect of the matter. As has recently come to light in the UK via the large scale mis-selling of pensions, not all pensions are alike: some are better than others. A National Association of Pension Funds survey revealed that one in eight of the pension schemes admitting part-timers provided inferior benefits (Labour Research 1994: 9-10). The reduced non-pay benefits available to part-time employees, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

e) Employment insecurity

Employment insecurity is a partially subjective state of affairs, making its investigation via quantitative techniques (e.g. administering questionnaires or measuring employment duration), highly problematic. Whilst many quantitative studies²² have not found a decrease in employment duration in recent years, casting doubt on the belief that employment insecurity is rising, matters are not so simple. For example, although no separate figures on part-time temporary workers are available, the LRD (1995) survey found 43% of temporary employees have been with the same employer over a year, and a further 12% have been with the same employer over 5 years.²³ A temporary worker who has his/her temporary contract continually renewed will appear in a quantitative survey of employment duration or turnover as secure. Whilst a worker in this position might be treated under job protection legislation as permanent, it does not seem unreasonable to suggest that insecurity might arise from the continual worry that the contract might not be extended.

Another dimension of employment insecurity that is difficult to measure is the voluntary or involuntary nature of any separation that finds its way into the figures for employment duration/turnover. Employment insecurity *might* be indicated if separation on the part of the employee is involuntary. I say "might" because reality is more complex than can often be dealt with in a questionnaire. What should one conclude if a person volunteers for the separation on the grounds that their current job is *too insecure* and they are seeking something more secure?

Gregg and Wadsworth hit upon what is perhaps the most worrying aspect of insecurity, namely, that contemporary entry points into the labour market are increasingly dominated by insecure employment. It appears that even those who have a secure job are worried, and not without reason, that should they lose it, they are likely to be re-employed in an insecure job:

²² Empirical evidence is, however, mixed. McGregor and Sproull (1992) asked employers to assess comparative rates of turnover for full and part-timers and found that, in general, there was little difference. Tilley (1992: 23) shows that average job tenure for part-timers in the U.S. is 3.4 years, compared with 5.7 years for full-timers. Natti (1995: 351) shows that average job tenure for part-time women in Finland is 5.2 years compared with 8.5 years for full-time women, although in Sweden the gap was minor. Penn and Wirth (1993: 257 and 263) found higher turnover of part-time staff in Sainsbury's and Marks and Spencers. According to the Employment Gazette (March 1993; 91), in the Summer of 1992, part-time employees had, on average, been with their current employer for a shorter period than full-time employees. An IPD (1995) survey revealed labour turnover rates for 1994 as follows: full-time & part-time manual 12 and 33%; part-time & full-time non-manual 14 and 31% respectively.

²³ That the LRD survey found "nearly half of all temps are employed part-time only" (1995: 4) makes these figures a little more relevant to part-time employment only.

[W]hile tenure and security have changed only marginally for the majority, entry positions available to those currently not in employment have become increasingly unstable...Thus the minority who lose their job or who want to (re-)enter work force face a labour market that is now dominated by part-time and temporary jobs (1995: 73).

The increased job insecurity associated with part-time employment, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

f) Nature of work

Part-timers are often used to perform the more unpleasant aspects of the job. Balchin, for example, shows that part-timers consider themselves treated as "second best" by full-time staff and managers. Part-timers were often moved to other sections at short notice, or used more "intensively" than full-timers, meaning, for example, they were employed to cover lunch or tea breaks or were kept in a demanding job throughout a peak period (1994: 52-3).

g) Job demands

Part-time jobs tend to require low levels of skill, training and responsibility. Even within any low-level job category, such as stock clerk, low level tasks are assigned to part-timers.²⁴

h) Promotion

Part-timers tend to enter employment at the bottom of the job ladder, and remain there or thereabouts. In retail most full-timers were once part-timers and part-time work acts as a 'bridge'. But few part-timers become full-timers due to the small number of full-time jobs relative to part-time and the fact that turnover in full-time is relatively low. Many of those part-timers in senior positions originally held this position as full-timers before turning part-time (IDS 1993: 3).

i) Awareness of employment protection legislation

In an (admittedly) small survey of 4 (large) UK retail outlets, Balchin found that a high proportion of workers were unaware or uncertain about their entitlement, as part-timers, to

²⁴ This raises the vexed issue of what exactly constitutes skill, its conceptualization and measurement. Levels of skill might depend not upon factors such as human capital (which can, allegedly, be measured) but upon factors such as *power* through which certain individuals are able to define employment as skilled or unskilled (which is probably impossible to measure meaningfully).

employment protection legislation. The existence of a raft of statutory rights for part-timers passed by the UK Parliament in 1995 (Employment Gazette, February 1995: 43) is one thing, that workers are aware of them is another, and that they are able to use legal channels without fear of reprisal is yet another. Moreover, given that many of the discriminatory practices against part-timers are difficult to uncover (e.g. consider the issue of qualitatively different pensions noted above), they may never actually come to light and may not, therefore, enter the realm of law.

The differential treatment of part-time employees vis-à-vis the nature of work, job demands and promotion, coupled with part-timers' relative lack of awareness of their employment rights, then, constitute qualitative changes in the nature, and a deterioration in the conditions, of employment.

j) Voluntary and involuntary part-time employment

Finally it is worth mentioning the issue of voluntary versus involuntary part-time employment. In the UK in Summer 1997 24% of male and 9% of female part-time employees and self-employed were working part-time because they "could not find a full-time job" (Labour Market Trends, January 1998: LF64). This is often taken to support the argument that the high and increasing incidence of part-time employment is not a major problem because most part-time workers *volunteer* for it. I briefly note four points to show how such a sentiment is questionable.

First, whilst statistically it appears that most part-timers are voluntary, there are a number of problems that quantitative data cannot capture. For example, a part-timer working in the secondary labour market and faced with a questionnaire asking: 'Do (you) not want a full-time job' has (at least) two scenarios to consider. Is the choice between:

- a) 20 hours of *poor* quality and 40 hours of *high* quality work, or
- b) 20 hours and 40 hours of *poor* quality work?

If the respondent has (a) in mind, and they still answer that they 'Do not want a full-time job', then there are grounds for believing that he/she is a 'voluntary' part-timer. If, however, the respondent has (b) in mind, then it is not clear that they do not want full-time employment: they may simply not want to work any more hours in a low quality job.

Second, since most part-timers are women, and women tend to be burdened with domestic, child-care, and dependent-care duties, the notion of 'volunteering', or 'choice' of hours becomes enmeshed in wider socio-political matters and cannot be treated as akin to choice over the purchase of washing powder. Moreover, the high incidence of part-time amongst female workers might even re-enforce sexism. One study notes the following advantage of flexible working for employees:

Many part-time women work on twilight production shifts which enable them to be at home with their children or other dependents during the day...(IDS 1993: 3)

But as Briar points out, promotion of "family friendly hours" designed to:

help women compete more effectively with men at work [have the effect of] helping more women to continue bearing the main responsibility for household labour and caring (cited in Warme 1992: 78).

Third, a simple although crucial observation is that whilst workers might 'volunteer' for part-time hours, they are most unlikely to 'volunteer' for the low pay and poor conditions that go with it. Part-time hours, low pay and poor conditions come as a package.

Fourth, whilst these problems may be conceived of as bias in the sampling instrument, this conception severely understates the nature of the problem. Issues like those surrounding the subjective interpretation of questionnaires about why respondents do or do not want a full-time job are likely to be overlooked by the (typical) economist motivated by the desire to quantify and measure.

In sum, the growth in part-time employment appears to constitute a series of qualitative changes in the nature, and a deterioration in the conditions, of employment. Arguing that this does not really matter because many part-time employees 'volunteer' for it constitutes a refusal to see beyond the level of the empirical.

4. Implications of critical realism

This final part draws methodology and labour economics together to show the implications that the critical realist perspective has for the study of contemporary employment and unemployment.

Recall that the use of deductivism and closed system analysis means that theoretical concepts have to be constructed in such a way as to reduce the multi-dimensional, qualitative reality of employment and unemployment, first to the level of *events* and second to the quantitative, single dimension of *variables*. As mere variables, however, these theoretical concepts cease to be adequate expressions of the reality they are designed to investigate. The following three examples demonstrate what it means to say that a variable, in this case 'unemployment', ceases to be an adequate expressions of the reality it is designed to investigate.

First, the reality of the employment experience for those in atypical employment is very different from the reality of those in typical employment within the *same country*. To treat one full-time job as equal to (say) two part-time jobs (even where the hours add up suitably to make a full-time equivalent) is to make the mistake of reducing quality to quantity - and losing something vital in the process. Any reduction in unemployment (assuming it results in a concomitant rise in employment) will have a differential impact upon workers in atypical and typical employment. Even a situation of full employment, should it occur in a period of significant atypical employment arrangements, would conceal vastly different employment experiences. Full employment in a country where significant numbers were atypically employed, and where conditions of employment had deteriorated, might not be cause for celebration - although the reduced unemployment figures would look impressive.

Second, the reality of the employment experience for those in atypical employment is very different from the reality of those in typical employment in *different countries*. The USA, UK and Spain, where atypical employment patterns are becoming increasingly significant, cannot be compared to countries like Germany where atypical work is (at the moment anyway) less significant. Even a situation of full employment, should it occur in countries experiencing significant levels of atypical employment, could not be said, unequivocally, to be a 'better' state

of affairs than a situation of less-then-full employment in countries experiencing significant levels of typical employment.²⁵

Third, the employment experience today, for those in atypical employment, is very different from the employment experience in previous periods when employment was largely typical. In March 1999 U.K. unemployment stands at around 6%, similar to what it was in the late 1970s. But given that in this period atypical employment was not significant, the similarity of the *em*ployment experience evaporates, making the comparison of *un*employment figures misleading. Full UK employment, should it occur in a period of significant atypical employment, could not be compared to full employment in the UK in (say) the 1950s where typical employment arrangements prevailed. The qualitative changes in the nature, and a deterioration in the conditions, of employment that have occurred recently, make comparison of unemployment in past, present and future periods highly problematic.²⁶

Conclusion

The opening quotation from the Financial Times reiterates what appears to be the conventional wisdom: falling unemployment figures indicate that the (now) flexible UK labour market is gradually solving the problem of unemployment. Recognizing, however, that the very conceptualization, and hence measurement, of unemployment itself is inadequate, an alternative interpretation emerges. The problem of *unemployment* is not so much being solved as being transposed into a problem of *employment*, more specifically, into a series of problems relating to the emergence of atypical employment and the deterioration in the quality of employment it engenders. Moreover, armed with a set of methodological tools in the form of critical realism, one is in a position to see that mainstream economics cannot even begin to address this

²⁵ It is, or course, extremely common to find data comparing unemployment in various countries. For example, Labour Market Trends (1997: 538) compares unemployment rates in UK, EU, European countries, Australia, Japan and USA. Barrel *et al* (1997) compare job creation in USA and Europe. Such quantitative studies inevitably fail to recognize the more fundamental methodological problems that arise with attempts to quantify qualitative phenomena.

²⁶ Dex and McCulloch (1995: 55) are representative of those who do recognize problems when attempting to quantify changes in forms of atypical employment over time. Whilst they recognize the (not inconsiderable) 'technical' problems of constructing a series over time (e.g. the sources of the data were unreliable in the past or sources have changed over time) they fail to recognize the more fundamental methodological problems that arise with attempts to quantify qualitative phenomena.

alternative interpretation. The deductivist method has placed qualitative issues like this out of the reach of mainstream economists.

CONCEPTUALIZING UNEMPLOYMENT IN A PERIOD OF ATYPICAL EMPLOYMENT: A CRITICAL REALIST PERSPECTIVE

The UK economy is generating jobs at an increasingly rapid pace...The headline rate of seasonally adjusted unemployment fell by 36,500 in June to 1.6m, pushing the rate of unemployment down from 5.8 to 5.7 percent...The government welcomed the figures as evidence of an improving labour market (Financial Times, 17 July 1997).

- 1. Relationship between *un*employment and *em*ployment. The conceptualization and measurement of *un*employment must adequately express the reality of *em*ployment.
- 2. Theoretical concepts that adequately express reality rest on appropriate *methodological* foundations. Adoption of an inappropriate method results in theoretical concepts that fail to express the reality under investigation.

Format

- Part 1. Introduction to critical realism.
- Part 2 From methodology to labour economics.
- Part 3. Atypical work: issues of quality.
- Part 4. Implications for the interpretation of contemporary unemployment figures.

1. Philosophy and Methodology

of science referred to as *positivism* and from the *ontology* referred to as *empirical realism*. The ensemble of deductivist method, positivist philosophy and empirical realist ontology combine as follows:²⁷

- ♦ Although positivism prioritizes epistemology, ontology is not banished. An implicit ontology is concealed consisting of the objects of sense experience. Reality is reduced to knowledge about what is experienced. The ontology is, therefore, of the *events* of sense impression.
- ♦ What are experienced are unique, unconnected, atomistic episodes or events. These events cannot be other than atomistic, since any connection or relation between them is impervious to experience otherwise the nature of those connections would require prior explanation, thus undermining the explanatory power of sense data. The ontology is not only of events, then, it is of atomistic events.
- ◆ If particular knowledge of reality is gained through experiencing atomistic events, then general, including scientific, knowledge must be of the constant patterns, if any, that these events reveal. Knowledge is acquired by observing and recording constant conjunctions of atomistic events.
- ♦ Scientific knowledge is, therefore, completely reliant upon the existence and ubiquity of constant patterns, regularities, or *constant conjunctions*, *of events* atomistically situated. Where there are no constant conjunctions of events to be observed and recorded, scientific knowledge is not available.
- ◆ From the deductivist perspective, constant conjunctions of events translate into covering laws, and may be styled: 'whenever event x then event y'.

Whilst constant conjunctions of events are fundamental to deductivism, they as exceptionally rare phenomena. There appear to be very few spontaneously occurring systems wherein constant

²⁷For ease of exposition, henceforth I will simply refer to empirical realist ontology, positivist philosophy of science and the deductivist method they engender simply as the deductivist method.

conjunctions of events occur in the natural world, and virtually none in the social world. That is not to deny the possibility that constant conjunctions may occur accidentally, or over some restricted spatio-temporal region, or be trivial. But virtually all of the constant conjunctions of interest to science only occur in experimental situations. In such situations, a very special system is generated, namely a *closed system*.

In a closed system, events are actively *engineered* to be constantly conjoined in the sense that for every event y, there exists a set of events $x_1,x_2...x_n$, such that y and $x_1,x_2...x_n$ are regularly conjoined. Each set of causes (x_i) , always produces the same effect (y); and each effect (y), always has the same set of causes (x_i) .

In natural science, the point of experiment is to *close the system* by creating a particular set of conditions that will isolate the one interesting mechanism. This mechanism is then allowed to operate unimpeded and the results, the constant conjunctions, recorded. In social science, and economics in particular, constant conjunctions of events appear to be found only in the "conceptual experiments" (Pencavel 1994: 14), that constitute theoretically closed systems.

Unfortunately, natural or social scientists who adopt the deductivist method face the following problematic and counterintuitive implications:

- d) Outside closed systems, where constant conjunctions of events are not usually found, one would have to conclude that there are no laws. This would be tantamount to saying that nothing governs the (non-constant) flux of events in open systems; science would, then, become a fruitless endeavor.
- e) It is often the case that conclusions derived from experimental situations (i.e. in closed systems) are successfully applied outside experimental situations (i.e. in open systems). Because of (a) above, this state of affairs would have no valid explanation.
- f) The obvious problem of how one may, justifiably, claim anything about a reality that constitutes an open system from an analysis of a closed system has never been *seriously* addressed by mainstream economists. In fact, deducing statements about the action of agents operating in a closed system, and transferring them to the action of agents in the

open system, commits the fallacy called *ignoratio elenchi*. This entails "assuming that one has demonstrated something to be true of X when the argument or evidence really applies to Y which is not the same as X in some respect" (Gordon 1991: 108). What is "not the same" is the existence and ubiquity of constant conjunctions of events.

Despite these problematic and counterintuitive implications rendering the deductive method singularly inappropriate for the analysis of open systems, (i.e. virtually all socio-economic systems) deductivism prevails. Moreover, deductivism's crucial need to engineer closed systems impacts negatively on the way the theoretical concepts are constructed. And this is true for the inadequate concepts constructed to investigate unemployment and atypical employment.

Before discussing inadequate conceptions, the following point is worth making to avoid confusion. Although the argument has been developed from the practice of natural science, its is applicable to social science in general, and mainstream economics in particular, for two reasons. First, mainstream economists readily admit to using (what they assume to be) the method of natural science. Second, and more importantly, if human agency is real, then (a) human agents could always have acted otherwise, and (b) human action must make a difference to the social world. If, minimally, (a) and (b) are accepted, the social world cannot be a closed system and any attempt to model it 'as if' it was leads to the kind of problematic and counterintuitive implications just noted.

1.2 From closed systems to inadequate conceptualizations

Recall that from the deductivist perspective, scientific knowledge is obtained by reducing objects or features of reality to events, and subsequently recording (or hypothesizing) their constant conjunctions. Since constant conjunctions only occur in closed systems, the theoretical components that comprise the system must be framed in such a way that constancy is never threatened. And for this, (at least) two requirements must be sought after:

c) The events themselves must be identical, that is, episodes of the same kind: 'Whenever event x', implies that a number of episodes of the same kind (x) have occurred.²⁸ Event x could, for example, be a change in the number of oranges, apples, or workers employed in a certain

²⁸The same applies, of course, to the event y's.

job. Whatever event x refers to, all episodes of it have to be identical. The requirement of identity implies a *common* dimension.

d) These events must be susceptible to quantification and measurement in space and time. This imperative to quantify and measure implies an *unchanging* dimension. If one is adding apples, and the time span is so long that by the time one gets to the end of the barrel, the apples have rotted, and are no longer apples, then the dimension will have changed and (meaningful) addition will become impossible.

The requirements of a *common*, and an *unchanging* dimension are presumed to be met by reconceptualizing, re-defining or reducing events to *variables*, whence changes in their magnitude can be recorded. A variable, in turn, must retain two important features:

iii)It must possess one, and only one, common and unchanging dimension - i.e. number, quantity or magnitude. The only change a variable is permitted to experience is change in this number, quantity or magnitude.

iv) It must maintain a stable reference to some real object or feature of reality.

Problems arise, however, if the real object to which the variable refers undergoes a *qualitative* change in its nature. If, for example, one is measuring ice cubes with the variable 'width of ice cube' and the temperature rises sufficiently, the qualitative nature of the ice cubes will change. The variable 'width of ice cube' and the object 'ice cube' have in a sense come adrift. The variable, unable to maintain a stable reference to its object, becomes an *inadequate conceptualization of reality*.

Of critical importance for this paper is the obvious consequence that what is true for ice cubes is also true for many economic entities such as employment. Consider the following statement: 'Whenever the magnitude of W (wage) changes, then the magnitude of E (filled jobs) changes. Here one is measuring the reality of employment (which is a qualitative phenomenon) with the variable 'filled jobs'²⁹ (which is a quantitative phenomenon). But employment, as a qualitative

²⁹ Whilst the precise specification of the variable used to capture employment varies (e.g. based upon employers surveys, labour force surveys, national accounts) all that is needed for our purposes is a

phenomenon, can change. To put matters simply for ease of exposition, 'good quality' employment can become 'poor quality' employment and *vice versa*. If this occurs, if the quality of employment changes, whilst the variable 'filled jobs' remains unchanged, then the object 'employment' and the variable 'filled jobs' have in a sense come adrift. The variable, unable to maintain a stable reference to its object, becomes an *inadequate conceptualization of reality*.

Since (as part 3 demonstrates) the nature of employment *is* undergoing a highly significant qualitative change, mainstream economist's are forced onto the horns of a dilemma. They must choose between (a) embracing the qualitative change, violating an important feature of their variable and, therefore, having to re-conceptualize employment; or (b) continuing with their variable, ignoring the qualitative change, and proceeding with an *inadequate* conceptualization of employment. Let me elaborate this important point.

- a) If mainstream economists wish to embrace qualitative change in employment, and if the variable 'filled jobs', is to continue to maintain stable reference to its object, then the variable will have to undergo a qualitative change. Some other way will, then, have to be found for adequately conceptualizing employment. But as noted in (i) above, this will violate one of the important features of a variable because a variable can undergo qualitative but not quantitative change.
- b) If mainstream economists wish to continue with the variable 'filled jobs', they will have to ignore qualitative change in employment and hence proceed with an *inadequate* conceptualization of employment.

It is important to note that the deductive method is setting the agenda of theoretical discourse, forcing the economist to choose between embracing or ignoring qualitative change. Typically, mainstream economists, not wishing to abandon the deductive method, have no option but to opt for the latter.³⁰ The result is a set of theoretical concepts, variables, that are totally devoid of

generic category such as 'jobs filled'. Specifying the variable more precisely would not effect the basic argument of this paper.

³⁰ Take for example, Layard, Nickel and Jackman's (1992) highly influential work on unemployment and the labour market. Is it not odd that such an extensive work on the labour market ignores atypical employment? Whilst the authors cannot possibly be unaware of this phenomenon, there is no way that such a qualitative, multidimensional reality can (meaningfully) be reduced to the single dimension of a variable and accommodated within the main equations they use to investigate unemployment. Their attachment to deductivism sets a truncated,

qualitative content or properties and in this form, however, they are useless devices for an inquiry into reality.

Now, it is worth noting that whilst critical realism is avowedly anti-empiricist, it is not anti-empirical. Clearly some qualitative aspects of employment can be quantified and measured relatively straightforwardly - for example the number of jobs held by one person.³¹ Other qualitative dimensions can be quantified and measured, although not straightforwardly, by finding proxy variables, or by constructing suitable indices. An example of this might be the way employment insecurity is often measured by the number of years an employee has held the same job. But even here, (see part 3 section e below) qualitative issues start to creep into the picture casting doubt on the meaningfulness of the measurement.³² However, and this is the crucial point, the mainstream economist's use of the deductivist method, and hence the imperative to quantify and measure, forecloses avenues of investigation and analysis for (at least) two reasons.

First, the mainstream economist, motivated by a desire to quantify and measure, simply has no way of discovering relevant qualitative phenomena. How, for example, would a mainstream economist ever discover the inferior nature of many part-time employees' pension schemes? Things of this nature can only be discovered by sociological or anthropological methods (such as in-depth interviews or participant observation) which are, typically, eschewed by

and thereby inadequate, theoretical agenda. Rice (1990) is typical of the (few) treatments of atypical employment by mainstream economists: part-time employment is reduced to a variable and treated as a function of another variable, in this case, national insurance contributions.

³¹Even here, thought, measurement does not reveal things like the attitude of the worker towards (say) the second job. And this is likely to have serious implications for issues that are of interest to labour economists such as the investigation of things like productivity levels in second (and increasingly third) jobs.

³²It is worth bearing in mind that anything and everything can, in a sense, be measured by proxies and indices. No doubt one could 'measure' the beauty of the Mona Lisa with suitable statistical devices. But, would such a measure actually mean anything? My suspicion is that in their desire to quantify, many mainstream economists fail to see that their measures are often meaningless. For example, Shapiro and Stiglitz (1990; 48) use the variable *q* as a measure of the "probability of being detected shirking". Whilst intuitively the notion that one might get caught shirking is a sensible observation, reducing this complex, multi-dimensional socio-psychological notion to the single-dimension of a variable destroys the sense of the observation and makes the variable meaningless. The same could be said for the common view amongst labour economists such as Booth (1995; 109 *passim*) that trade union power can be measured (amongst other things) by the level of membership. (See Fleetwood 1999 for a critique of this view). Here again complex, multi-dimensional socio-political phenomena are reduced to the single-dimension of a variable so that they can be measured, whereupon they lose virtually all meaning.

mainstream economists on the grounds that they are not 'scientific' - i.e. are not based upon the deductive method.

Second, even if this mainstream economist (somehow) discovered relevant qualitative phenomena, how might they be quantified and measured? For example, how might one (meaningfully) quantify and measure the hidden sexism of part-time 'family friendly' employment arrangements, let alone their consequences? - see part 3 section j.

In sum then, the deductivist method is inappropriate to the study of socio-economic phenomena (such as the atypical employment and unemployment elaborated upon below) because this method presupposes a *closed-system* whereas these phenomena occur in an *open system*. Furthermore, the need to engineer a *closed system* heavily influences the way the theoretical concepts used to investigate employment and unemployment are constructed. To be more specific, deductivist reasoning requires that the theoretical concepts have to be constructed in such a way so as to reduce the multi-dimensional, qualitative reality of employment and unemployment, first to the level of *events* and second to the quantitative, single dimension of *variables*. As variables, however, these theoretical concepts cease to be adequate expressions of the reality they are designed to investigate.

Before we leave methodology, one final point needs to be made. As I mentioned in the introduction, one does not need critical realism merely to *show* that mainstream economics is preoccupied with quantification and is unable to (meaningfully) deal with the kind of qualitative issues that arise when investigating atypical employment: this is a well known criticism. One does, however, need critical realism³³to *explain* this state of affairs.³⁴ Without a critical realist perspective, the explanation of this state of affairs would be *ad hoc*, turning on things like subjective preference, (i.e. a quantitative approach is simply preferred) or lack of sociological sophistication on the part of mainstream economists. With a critical realist perspective, however, the explanation ceases to be *ad hoc*. Once deductivism is adopted, and with it the commitment to closed systems, framing theoretical concepts in quantitative terms becomes almost irresistible,

³³Other methodological perspectives may be of some assistance here, but arguably, to paraphrase a well known lager commercial, critical realism reaches the parts other perspectives cannot reach. For

well known lager commercial, critical realism reaches the parts other perspectives cannot reach. For example, whilst Boylan and O'Gorman's (1995) causal holism might be usefully deployed to highlight the lack of descriptive adequacy in the mainstream treatment of atypical employment, it explains neither the preoccupation with quantification, nor why such quantification is inappropriate.

whilst framing them in qualitative terms becomes almost impossible. The methodology generates a kind of theoretical 'lock in' - and, by extension, 'lock out.' 35

2. The connection between employment and unemployment

If mainstream economic theory is ill-equipped to deal with qualitative phenomena because of its adherence to deductivism, then investigating the *qualitative* relationship between *un*employment and *em*ployment is bound to be fraught. A testament to this is that the *qualitative* relationship between *un*employment and *em*ployment is hardly ever investigated by mainstream economists.³⁶ This is a significant oversight, because the (re)emergence of *atypical employment* places the quality of employment firmly on the agenda.³⁷

Lets us leave quality to one side for the moment, and concentrate on reality. If to be *un*employed is to be without *em*ployment, a *job* or *work*, then *un*employment becomes the *other*, or *absence*, of *em*ployment. This distinction makes the reality of *un*employment partly dependent upon the reality of *em*ployment. If, furthermore, the reality of unemployment is to be adequately expressed in economic theory and subsequently (meaningfully) measured, then the concepts used to define and measure *un*employment must take the reality of *em*ployment into account. The conceptualization and measurement of *un*employment must, therefore, adequately grasp the reality of *em*ployment. The following caricature might drive the point home. It is most unlikely that a person would be classified, and measured, as unemployed if the only alternative was

³⁴I would like to thank the anonymous referee for alerting me to this problem.

³⁵Note that the discussion of critical realism carries an important message for many Austrian, Institutionalist, Marxist and Post Keynesian economists who, whilst critical of neoclassical economics, are nonetheless unwilling to break completely with deductivism. For example, a paper by Lieberman and Jehle *the Journal of Post Keynesian Economics* uses the deductivist method, closed systems and the reduction of complex aspects of the employment experience to variables - see especially their *fn* 3. Despite the authors' progressive intentions, methodologically speaking there is no difference between their approach that of neoclassical economics.

³⁶This is in contrast to the *quantitative* relation such as the recent conundrum where the number of unemployed is falling but the number of employed is not increasing at the same rate. Even here, one report recognized observed: "[o]ne thing these figures can't tell us, however, is how secure these jobs are" (EPI 1995). In other words, *quantitative* forms of analysis can't tell us much about many of the *qualitative* aspects of jobs.

³⁷ A symposium on unemployment (Glynn and Mayhew 1995) actually carries a paper on qualitative aspects of employment (Gregg and Wadsworth), but the connection between the qualitative aspects of employment and the conceptualization and measurement of unemployment is overlooked. Whilst recent editions of Labour Market Trends, in particular an article by Perry (1996), recognize the existence of "flexible work arrangements", and the LFS now has data on seasonal contracts, fixed term work, agency work and causal work, again the connection is omitted. Other publications where one might expect, but do not find, a discussion of this connection include: Metcalf (1992); Coats (1995) and Meadows (1996). Blank (1990: 123) is one of the few to touch upon the connection, noting that at "its worst, part-time work may be considered a form of disguised unemployment".

'employment' in the form of slavery. The traditional conceptualization and measurement of unemployment would be radically altered by the reality of 'employment'.³⁸

Bringing quality back into the picture, it appears that the conceptualization and measurement of *un*employment must adequately grasp the qualitative reality of *em*ployment. Given that (as part 3 will show) employment increasingly comes in qualitatively different forms, the *quality* of employment must, on pain of irrelevance, become a legitimate issue for conceptualizing and measuring unemployment. If one is content to merely count heads, the quality of employment will be of no concern: an individual either has or does not have a job and will be classified, and counted, as employed or unemployed accordingly.³⁹ If they have a part-time job, this position may be counted as a fraction of a full-time post.

When, however, one refuses to ignore the fact that not all jobs are alike, more specifically, that atypical and typical jobs are often qualitatively very different, then merely 'having a job' obscures important differences and head-counting becomes, at the very best, one dimension of a multi-dimensional analysis. As Sengenberger puts it:

[T]he definition of full employment...needs to take into account changes in the structure of employment, such as new forms of flexible employment...Measures of unemployment catch only one aspect of the employment problem:...that of total lack of work. Less obvious situations, such as *the partial lack of work...are not accounted for in unemployment statistics at all* (1996, emphasis added).

The category of *underemployment* is designed to catch some of the gray area where employment and unemployment cannot be sharply delineated. A worker is underemployed when employed but this employment is, in some sense, less than adequate. Underemployment is usually discussed via two categories - visible and invisible.

³⁸The idea that *un*employment is the *other*, or *absence*, of *em*ployment, a job, or work is implicit in the various official definitions of unemployment - i.e. economic activity/inactivity, employees in employment, claimant/LFS unemployed and so on . In a section entitled "The definition of unemployment" Johnson and Briscoe note how the definition of unemployment rests upon "more precise criteria" such as "seeking work, wanting a job; being available for work; and not working" (1995; 104).

³⁹ Unfortunately, head counting constitutes a significant proportion of the research done on employment by economists. According to Dilnot: "Economists have many failings but one of the most damaging is the desire to summarize in a single number [i.e. a variable SF] some large and complex part of the economy. That weakness is often seen in discussions of the labour market, when some single measure is used to capture the supposed reality. In the case of the labour market, levels of unemployment are often singled out" (1996: 14). If critical realism is correct, the reason for this failure is rooted in the use of an inappropriate method - deductivism.

Visible underemployment is so named because it is relatively easy to see, quantify and measure although note the points I made on p 9 about the meaningfulness of measurement. Visible underemployment might occur when a worker is constrained to work fewer hours than he/she desires. Invisible underemployment is so named because it is relatively difficult to see, and in some cases impossible to (meaningfully) quantify and measure because, for example, it relates to issues like being (under)employed in a job where one's skills are not being adequately utilized.

It is, however, possible to identify a third form of underemployment which might be called 'poor quality underemployment'. This would occur, for example, if full-time jobs were turned into part-time jobs and the quality of employment deteriorated. Something like 'poor quality underemployment' appears to be crucial for understanding employment and unemployment in the present period. Paraphrasing Sengenberger (above) one could argue that 'partial lack of work, in the form of poor quality underemployment or atypical employment, is not accounted for in unemployment statistics at all'.

In sum, connecting the critical realist discussion of methodology in part one to the discussion of the quality of changing nature of employment in part two throws up two problems for mainstream labour economics. First, it *has not* taken the qualitative transformation in the nature of employment into consideration.⁴⁰ Second, as the critical realist critique has established, as long as mainstream economics remains wedded to deductivism it *cannot* (in any meaningful sense) take this qualitative transformation into account. Because it almost impossible to overemphasize the impact of this problem, allow me to make a very bold, if sweeping statement for emphasis. As long as mainstream economics refuses to adopt an alternative method, it is destined to be irrelevant. It will continue to measure changes in variables like 'jobs filled' and 'seeking employment'; and it will continue to predict, (with, if the economy constitutes an open system, little hope of success) changes in the magnitude of these variables. But it will get nowhere near to an understanding of what is actually going on in reality.

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⁴⁰ It should be noted that whilst these issues are debated in the pages of Sociology, HRM, Industrial Relations, Organizational Behavior and Management journals, the debate is virtually absent in Economics and Labour Economics journals.

3. Atypical employment: the case of part-time work

Now, the foregoing arguments have continually made reference to the qualitative transformation in the nature of employment that is currently taking place. The task of this section is to elaborate upon it.

The multidimensional nature of atypical employment makes it notoriously difficult to define (cf. Casey 1988; Casey et al 1997; Ewing 1996; Pollert 1991; Polivka and Nardone, 1989; Polivka 1996; Roosenthal 1989; Klein 1996). Atypical employment can be conceived under very general headings such as: contingent work, alternative work arrangements, flexible working practices; or under less general headings such as independent contractors, on-call workers, temporary help agency workers, workers provided by contract firms. Atypical employment can also be conceptualized of in specific forms such as: part-time, self-employed, zero hours contracts, home workers, flexi-time, annualized hours, compressed working weeks, job-share, seasonal workers, workers in special programs for the unemployed and so on.

Since a thorough investigation of the myriad forms of atypical employment is, obviously, beyond the scope of this paper, I opt to investigate atypical employment via the *example* of one of its most common forms, namely *non-contingent part-time employment* - hereafter referred to simply as *part-time* employment.⁴¹ By exploring the reality of part-time employment, I hope to make the following points clear.

First, whilst all forms of employment have an irreducibly qualitative nature (at its simplest, no two jobs are identical), I am trying to establish something more than this. I am trying to capture the profound qualitative changes that are currently occurring in the nature of employment. This can best be done, I suspect, by describing how part-time (atypical) employment differs from full-time (typical) employment in a number of dimensions, most of which are qualitative in nature.

⁴¹Note that in choosing the example of part-time employment I am choosing the most difficult, yet most powerful, case for my argument because this form of atypical employment bears the closest resemblance to typical employment. The advantages of using the most difficult case are two-fold. First, if I can establish that difficulties arise in adequately conceptualizing *part-time* employment on account of its qualitative and multidimensional nature, these difficulties will be multiplied for those other forms of atypical employment that bear little or no resemblance to typical employment. Second, if I can establish that the emergence of *part-time* employment constitutes a deterioration in the conditions of employment relative to typical employment, then the conditions of employment associated with forms of atypical employment that bear little or no resemblance to typical employment will constitute a far worse deterioration.

Second once the multi-dimensional and qualitative nature of atypical employment is firmly established, the full force of the methodological critique developed in part 1 is unleashed on mainstream economics. It becomes relatively easy to see why the deductive method leaves mainstream labour economics ill-equipped to deal with qualitative changes in the nature of employment. Emphasis will be placed, therefore, on the nature of these changes and the deterioration, in terms and conditions, that characterize the shift to part-time employment.

In Summer 1998 there were 6.8 million part-time UK workers, that is about 27% of the total workforce. The situation for men is particularly acute. Between 1984 and 1998, male full-time employment fell by 0.16% whilst male part-time employment rose by 117% - the same figures for females reveals 19% and 23% rises respectively (Social Trends 1998).

What is perhaps more significant than absolute numbers, is the fact that the vast majority of entry points into the labour market are dominated by part-time and other forms of atypical employment. Between the Winters of 1992/3 and 1995/6, only 9% of the 750,000 new jobs created were permanent and full time. Half were permanent part-time and a further 15% were temporary part-time (TUC, 1996).

Now, most economic literature on part-time employment tends to be quantitative and statistical, focusing on the average part-timer. Whilst it is interesting to know that part-time work is on the increase, or that mean hourly wages of part-timers is lower than that of full timers, such statistical statements illuminate very little of the reality of the employment experience, and often in fact, disguise far more significant issues. As Tilley puts it: "Behind the averages however, fascinating glimpses of diversity emerge" (1992: 331).

Even the category 'part-time' conceals many differing employment experiences. Tilley, for example, (1992) observes two broad types of part-time employment. *Retention* part-time jobs tend to be found in the primary labour market, and are designed by employers to retain or attract valued workers who prefer to work part-time. *Secondary* part-time jobs tend to be found in the secondary labour market, and are designed by employers to gain advantages of lower compensation and greater scheduling flexibility. To all intents and purposes, retention part-time

jobs are often similar in quality not only to full-time jobs, but to typical full-time jobs at that.⁴² Since secondary part-time employment involves the largest number of workers, and creates the most problems for those who experience it, part-time secondary employment will be the focus here.

a) Remuneration

There is no shortage of figures on pay for part-timers, although the evidence is mixed and difficult to interpret (Blank 1990). According to McGregor and Sproull (1992), in 90% of the companies they surveyed, hourly rates of pay for part-timers were the same as full-timers; the IDS (1993) study shows something similar. The New Earnings Survey (1996), however, reveals that in April 1996, female average gross hourly earnings for all occupations was £5.44 for part-time and £7.50 for full-time.⁴³

Part-timers are highly concentrated in certain occupations such as clerical and secretarial, personal services and sales assistants (Fothergil and Watson 1993: 214). These occupations, part or full-time, tend to be filled primarily, although not exclusively, by women and tend to be low paid. Even within an occupation, part-time employees tend to earn less per hour than their full time counterparts.

b) Over-time pay and the second job

Traditional overtime hours are worked before, or after, the main working day/shift and/or at weekends. Although average paid overtime hours have remained fairly constant over the last two decades, there has been a change in when and how it is performed. *Over-time working increasingly takes the form of a second, and therefore part-time, job.*⁴⁴ Second jobs tend to be paid at normal rather than overtime rates, so any full-timer engaged in overtime in the form of a second job, as opposed to traditional overtime arrangements, experiences a relative loss in hourly pay. Second jobs tend also to be paid at normal rather than unsocial hours rates, so any

⁴² As one would expect, the highest paid part-time occupations are professionals, with average hourly earnings (1995) of £13.33, that is, about 20p higher than the equivalent full-time statistic (Osborne 1996: 321). Comparison between this and a male kitchen porter or a female dental nurse's average hourly earnings of £3.82 and £4.22 respectively. (Wood 1995) gives some indication of the differences within the category 'part-time'.

⁴³ I refrain from discussing the issue of whether part-timers earn low pay because of their alleged low productivity or because of the nature of the job (cf. Blank 1990).

⁴⁴There are just under 1.3 million workers with second jobs in the UK (Social Trends 1998).

full or part-timer engaged in overtime in the form of a second job that entails unsocial hours once again experiences a relative loss in hourly pay. Whilst most firms do pay *pro rata* overtime and unsociable hours pay rates, many part timers working set hours that combine both of these categories, by working evening shifts or permanent week-ends for example, often receive less than would be paid to a full-time typical worker. Over-time work in the form of a second job, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

c) Multiple job holding

Multiple job holding is important for understanding part-time employment because when people hold a portfolio of jobs it is likely to consist of a mixture of full and part-time, or a mixture of various part-time jobs. As Dex and McCulloch (1995: 65) put it: "it is possible to argue that second job holding is an element of flexible job holding". A survey by the public service union Unison revealed that 38% of the 2,000 cleaning and catering staff at Newcastle Upon Tyne city council had two part-time jobs, while almost 4% had three jobs (Hetherington 1995). Whilst the disadvantages associated with multiple job holding have not been well documented, some of the more obvious are not hard to conceive. They include: increased time spent traveling to work; associated increase in travel costs; and reduced, or in some cases no, paid tea/meal breaks. Multiple job holding, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

d) Non-pay benefits

Part-timers are often disadvantaged relative to full-timers in the same firm in terms of sick pay, pension schemes, bonus or profit share, discount on goods/services, interest free/low loans, subsidized hospital/medical insurance. Part-timers whose normal pattern does not include public holidays usually receive no entitlement to another day off.

In Autumn 1995, 62% of men and 32% of women part-time employees had no paid holiday entitlement; whilst the figures for full-time employees are 7 and 17%, respectively. The average number of days of paid holiday entitlement for part-time employees was 13, and that of full-time employees was 21 (LFS Helpline, May 1996). Furthermore, 17% -23% of firms offered no pension scheme to part-timers, and a further 28% - 37% restrict it to those working more than 16 hours per week.

There is, however, an extremely important point buried within the data on pensions, namely that important qualitative issues are extremely unlikely to be discovered via quantitative analysis. It is not difficult for an economist to obtain data on whether or not a part-time employee is covered by the company pension scheme. But, this is only one aspect of the matter. As has recently come to light in the UK via the large scale mis-selling of pensions, not all pensions are alike: some are better than others. A National Association of Pension Funds survey revealed that one in eight of the pension schemes admitting part-timers provided inferior benefits (Labour Research 1994: 9-10). The reduced non-pay benefits available to part-time employees, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

e) Employment insecurity

Employment insecurity is a partially subjective state of affairs, making its investigation via quantitative techniques (e.g. administering questionnaires or measuring employment duration), highly problematic. Whilst many quantitative studies⁴⁵ have not found a decrease in employment duration in recent years, casting doubt on the belief that employment insecurity is rising, matters are not so simple. For example, although no separate figures on part-time temporary workers are available, the LRD (1995) survey found 43% of temporary employees have been with the same employer over a year, and a further 12% have been with the same employer over 5 years.⁴⁶ A temporary worker who has his/her temporary contract continually renewed will appear in a quantitative survey of employment duration or turnover as secure. Whilst a worker in this position might be treated under job protection legislation as permanent, it does not seem unreasonable to suggest that insecurity might arise from the continual worry that the contract might not be extended.

⁴⁵ Empirical evidence is, however, mixed. McGregor and Sproull (1992) asked employers to assess comparative rates of turnover for full and part-timers and found that, in general, there was little difference. Tilley (1992: 23) shows that average job tenure for part-timers in the U.S. is 3.4 years, compared with 5.7 years for full-timers. Natti (1995: 351) shows that average job tenure for part-time women in Finland is 5.2 years compared with 8.5 years for full-time women, although in Sweden the gap was minor. Penn and Wirth (1993: 257 and 263) found higher turnover of part-time staff in Sainsbury's and Marks and Spencers. According to the Employment Gazette (March 1993; 91), in the Summer of 1992, part-time employees had, on average, been with their current employer for a shorter period than full-time employees. An IPD (1995) survey revealed labour turnover rates for 1994 as follows: full-time & part-time manual 12 and 33%; part-time & full-time non-manual 14 and 31% respectively.

⁴⁶ That the LRD survey found "nearly half of all temps are employed part-time only" (1995: 4) makes these figures a little more relevant to part-time employment only.

Another dimension of employment insecurity that is difficult to measure is the voluntary or involuntary nature of any separation that finds its way into the figures for employment duration/turnover. Employment insecurity *might* be indicated if separation on the part of the employee is involuntary. I say "might" because reality is more complex than can often be dealt with in a questionnaire. What should one conclude if a person volunteers for the separation on the grounds that their current job is *too insecure* and they are seeking something more secure?

Gregg and Wadsworth hit upon what is perhaps the most worrying aspect of insecurity, namely, that contemporary entry points into the labour market are increasingly dominated by insecure employment. It appears that even those who have a secure job are worried, and not without reason, that should they lose it, they are likely to be re-employed in an insecure job:

[W]hile tenure and security have changed only marginally for the majority, entry positions available to those currently not in employment have become increasingly unstable...Thus the minority who lose their job or who want to (re)enter work force face a labour market that is now dominated by part-time and temporary jobs (1995: 73).

The increased job insecurity associated with part-time employment, then, constitutes a qualitative change in the nature, and a deterioration in the conditions, of employment.

f) Nature of work

Part-timers are often used to perform the more unpleasant aspects of the job. Balchin, for example, shows that part-timers consider themselves treated as "second best" by full-time staff and managers. Part-timers were often moved to other sections at short notice, or used more "intensively" than full-timers, meaning, for example, they were employed to cover lunch or tea breaks or were kept in a demanding job throughout a peak period (1994: 52-3).

g) Job demands

Part-time jobs tend to require low levels of skill, training and responsibility. Even within any low-level job category, such as stock clerk, low level tasks are assigned to part-timers.⁴⁷

⁴⁷ This raises the vexed issue of what exactly constitutes skill, its conceptualization and measurement. Levels of skill might depend not upon factors such as human capital (which can, allegedly, be measured) but upon factors such as *power* through which certain individuals are able to define employment as skilled or unskilled (which is probably impossible to measure meaningfully).

h) Promotion

Part-timers tend to enter employment at the bottom of the job ladder, and remain there or thereabouts. In retail most full-timers were once part-timers and part-time work acts as a 'bridge'. But few part-timers become full-timers due to the small number of full-time jobs relative to part-time and the fact that turnover in full-time is relatively low. Many of those part-timers in senior positions originally held this position as full-timers before turning part-time (IDS 1993: 3).

i) Awareness of employment protection legislation

In an (admittedly) small survey of 4 (large) UK retail outlets, Balchin found that a high proportion of workers were unaware or uncertain about their entitlement, as part-timers, to employment protection legislation. The existence of a raft of statutory rights for part-timers passed by the UK Parliament in 1995 (Employment Gazette, February 1995: 43) is one thing, that workers are aware of them is another, and that they are able to use legal channels without fear of reprisal is yet another. Moreover, given that many of the discriminatory practices against part-timers are difficult to uncover (e.g. consider the issue of qualitatively different pensions noted above), they may never actually come to light and may not, therefore, enter the realm of law.

The differential treatment of part-time employees vis-à-vis the nature of work, job demands and promotion, coupled with part-timers' relative lack of awareness of their employment rights, then, constitute qualitative changes in the nature, and a deterioration in the conditions, of employment.

j) Voluntary and involuntary part-time employment

Finally it is worth mentioning the issue of voluntary versus involuntary part-time employment. In the UK in Summer 1997 24% of male and 9% of female part-time employees and self-employed were working part-time because they "could not find a full-time job" (Labour Market Trends, January 1998: LF64). This is often taken to support the argument that the high and increasing incidence of part-time employment is not a major problem because most part-time workers *volunteer* for it. I briefly note four points to show how such a sentiment is questionable.

First, whilst statistically it appears that most part-timers are voluntary, there are a number of problems that quantitative data cannot capture. For example, a part-timer working in the secondary labour market and faced with a questionnaire asking: 'Do (you) not want a full-time job' has (at least) two scenarios to consider. Is the choice between:

- a) 20 hours of *poor* quality and 40 hours of *high* quality work, or
- b) 20 hours and 40 hours of *poor* quality work?

If the respondent has (a) in mind, and they still answer that they 'Do not want a full-time job', then there are grounds for believing that he/she is a 'voluntary' part-timer. If, however, the respondent has (b) in mind, then it is not clear that they do not want full-time employment: they may simply not want to work any more hours in a low quality job.

Second, since most part-timers are women, and women tend to be burdened with domestic, child-care, and dependent-care duties, the notion of 'volunteering', or 'choice' of hours becomes enmeshed in wider socio-political matters and cannot be treated as akin to choice over the purchase of washing powder. Moreover, the high incidence of part-time amongst female workers might even re-enforce sexism. One study notes the following advantage of flexible working for employees:

Many part-time women work on twilight production shifts which enable them to be at home with their children or other dependents during the day...(IDS 1993: 3)

But as Briar points out, promotion of "family friendly hours" designed to:

help women compete more effectively with men at work [have the effect of] helping more women to continue bearing the main responsibility for household labour and caring (cited in Warme 1992: 78).

Third, a simple although crucial observation is that whilst workers might 'volunteer' for parttime hours, they are most unlikely to 'volunteer' for the low pay and poor conditions that go with it. Part-time hours, low pay and poor conditions come as a package. Fourth, whilst these problems may be conceived of as bias in the sampling instrument, this conception severely understates the nature of the problem. Issues like those surrounding the subjective interpretation of questionnaires about why respondents do or do not want a full-time job are likely to be overlooked by the (typical) economist motivated by the desire to quantify and measure.

In sum, the growth in part-time employment appears to constitute a series of qualitative changes in the nature, and a deterioration in the conditions, of employment. Arguing that this does not really matter because many part-time employees 'volunteer' for it constitutes a refusal to see beyond the level of the empirical.

4. Implications of critical realism

This final part draws methodology and labour economics together to show the implications that the critical realist perspective has for the study of contemporary employment and unemployment.

Recall that the use of deductivism and closed system analysis means that theoretical concepts have to be constructed in such a way as to reduce the multi-dimensional, qualitative reality of employment and unemployment, first to the level of *events* and second to the quantitative, single dimension of *variables*. As mere variables, however, these theoretical concepts cease to be adequate expressions of the reality they are designed to investigate. The following three examples demonstrate what it means to say that a variable, in this case 'unemployment', ceases to be an adequate expressions of the reality it is designed to investigate.

First, the reality of the employment experience for those in atypical employment is very different from the reality of those in typical employment within the *same country*. To treat one full-time job as equal to (say) two part-time jobs (even where the hours add up suitably to make a full-time equivalent) is to make the mistake of reducing quality to quantity - and losing something vital in the process. Any reduction in unemployment (assuming it results in a concomitant rise in employment) will have a differential impact upon workers in atypical and typical employment. Even a situation of full employment, should it occur in a period of significant atypical employment arrangements, would conceal vastly different employment experiences. Full employment in a country where significant numbers were atypically

employed, and where conditions of employment had deteriorated, might not be cause for celebration - although the reduced unemployment figures would look impressive.

Second, the reality of the employment experience for those in atypical employment is very different from the reality of those in typical employment in *different countries*. The USA, UK and Spain, where atypical employment patterns are becoming increasingly significant, cannot be compared to countries like Germany where atypical work is (at the moment anyway) less significant. Even a situation of full employment, should it occur in countries experiencing significant levels of atypical employment, could not be said, unequivocally, to be a 'better' state of affairs than a situation of less-then-full employment in countries experiencing significant levels of typical employment.⁴⁸

Third, the employment experience today, for those in atypical employment, is very different from the employment experience in previous periods when employment was largely typical. In March 1999 U.K. unemployment stands at around 6%, similar to what it was in the late 1970s. But given that in this period atypical employment was not significant, the similarity of the *em*ployment experience evaporates, making the comparison of *un*employment figures misleading. Full UK employment, should it occur in a period of significant atypical employment, could not be compared to full employment in the UK in (say) the 1950s where typical employment arrangements prevailed. The qualitative changes in the nature, and a deterioration in the conditions, of employment that have occurred recently, make comparison of unemployment in past, present and future periods highly problematic.⁴⁹

Conclusion

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⁴⁸ It is, or course, extremely common to find data comparing unemployment in various countries. For example, Labour Market Trends (1997: 538) compares unemployment rates in UK, EU, European countries, Australia, Japan and USA. Barrel *et al* (1997) compare job creation in USA and Europe. Such quantitative studies inevitably fail to recognize the more fundamental methodological problems that arise with attempts to quantify qualitative phenomena.

⁴⁹ Dex and McCulloch (1995: 55) are representative of those who do recognize problems when attempting to quantify changes in forms of atypical employment over time. Whilst they recognize the (not inconsiderable) 'technical' problems of constructing a series over time (e.g. the sources of the data were unreliable in the past or sources have changed over time) they fail to recognize the more fundamental methodological problems that arise with attempts to quantify qualitative phenomena.

The opening quotation from the Financial Times—reiterates what appears to be the conventional wisdom: falling unemployment figures indicate that the (now) flexible UK labour market is gradually solving the problem of unemployment. Recognizing, however, that the very conceptualization, and hence measurement, of unemployment itself is inadequate, an alternative interpretation emerges. The problem of *unemployment* is not so much being solved as being transposed into a problem of *employment*, more specifically, into a series of problems relating to the emergence of atypical employment and the deterioration in the quality of employment it engenders. Moreover, armed with a set of methodological tools in the form of critical realism, one is in a position to see that mainstream economics cannot even begin to address this alternative interpretation. The deductivist method has placed qualitative issues like this out of the reach of mainstream economists.