



Employability and Motivation: Which motivational theories are most appropriate?

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Employability and Motivation: Which motivational theories are most appropriate?

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Abstract

Purpose– A range of models of employability implicitly or directly identify potential drivers of motivated behaviour related to engaging in employment-related outcomes whilst acknowledging that that employability is also about developing life skills. Motivational theorists suggest that tasks engaged for external purposes e.g., working towards an employment-related goal, are experienced differently than (those same) tasks engaged in for less external reasons e.g., the desire for knowledge. Whilst there are excellent examples of the use of motivational theory in some models of employability, sometimes the evidence is either out-dated, incorrectly interpreted or fails to use the most appropriate motivational theory. The aim of this paper is to bring to attention several prominent motivational theories and some key evidence that seem most pertinent across models of employability.

Design/Methodology/Approach – As this was non-empirical design, the approach did not fit any research design methodology or structured, systematic or meta-analysis review. The paper outlines a series of arguments by reviewing in detail several theories of motivation and mapping them against current models of employability.

Findings – From a theoretical point perspective, it is suggested that Expectancy Value Theory needs to be considered when creating models of employability. It is also suggested that motivation for employment-related tasks is probably extrinsic though evidence suggests that forms of extrinsic motivation can also be motivationally adaptive. Several models posit self-efficacy as a driver of motivated behaviour, but the evidence suggests a clear and consistent interactive relationship between subjective task value and self-efficacy suggesting that self-efficacy is ONLY a useful predictor when value is high.

Value – Models of employability are mostly created using bodies of extant evidence. In this paper, we have tried to identify where some of the interpretation of the evidence has been

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3 more or less appropriate. We hope that ideas and evidence in this paper will allow theorists,
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5 where appropriate, to re-develop their models.
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8 **Practical implications** – Whilst the aim of models of employability is to improve our
9
10 understanding of the predictors of employability behaviours, the practical consequence is the
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12 development of appropriate curriculum. Understanding which features of employability
13
14 create adaptive and maladaptive motivation should help educators create curriculum that
15
16 produce optimal engagement and performance.
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24 *Keywords:* Employability, work-based learning, academic skills
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Employability and Motivation

Trying to capture the concept of “employability” in a succinct sentence is complicated because the concept has been theorised and operationalised differently by different groups of researchers. However, Romgens, Scoupe & Beusaert (2020) reviewed the range of models and conceptualisations and identified dimensions of models of employability. For example, the dimensions of human capital approaches focus on “the knowledge, skills and attitudes needed to meet performance expectations” (p.2593), social capital models “refers to embeddedness in relevant social networks and the knowledge, skills and attitudes to develop relevant work-related relationships” (p.2594). Other well-known models focus specifically on career-skills (Dacre Pool & Sewell, 2007; Sewell & Dacre Pool, 2010; Knight & Yorke, 2004) whilst others focus on student career identity (Hinchliffe & Jolly, 2011). This list of models is illustrative rather than exhaustive but exemplify the range the angles models of employability adopt.

A common element in all these models is the implicit or explicit inculcation of motivational concepts such as self-efficacy, self-esteem, (job-related) attitudes and identities. Across the models, some of these concepts are cited as antecedents, outcomes or both. In this paper, we focus on evidence from studies of motivation that suggest some elements of models need reconsideration. This is not to denigrate existing models; the aim is to point to some potential fruitful new ways to research employability and motivation both theoretically and empirically.

In the first section of this paper, we discuss some dominant theories and conceptualisations of the concept of employability.

In the second (largest) section, we focus on two motivational theories namely self-determination theory (Deci, Ryan, & Aronson, 1985; Ryan & Deci, 2020) and expectancy-

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value theory (Wigfield & Eccles, 2000; Eccles & Wigfield, 2020) .We explain how concepts such as feelings of autonomy and the perceived value of engaging in an activity are fundamental determinants of motivated behaviour.

In the third section, we discuss what role employability and motivation play in each other's theorising and discourse. For example, we map the motivational constructs to features of employability.

In the fourth section, we offer suggestions for how research designs might most usefully be organised to examine Employability and Motivation. We identify research that may actually be examining employability and motivation without having labelled it as such from both the fields of motivation and the fields of employability.

In the final section, we summarise our key arguments and suggest some broad research questions that might be usefully examined using an employability/motivation model.

What is Employability?

In this first section, we discuss theories of employability. Employability is often called a complex or even slippery concept and has been a prominent feature of university activity in the UK at least since the Enterprise in Higher Education initiatives in the 1990's (Watts & Hawthorne, 1992). Consequently, there have been numerous efforts to define exactly what employability is in particular in the domain of university education. A relatively early definition which is often cited is that of Hillage and Pollard (1998) of the Institute of Employment Studies:

"...employability is about being capable of getting and keeping fulfilling work. More comprehensively employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and

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3 *present them to employers and the context (e.g. personal circumstances and labour market*
4 *environment) within which they seek work.”*
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8 Their definition was based on a review of the existing literature and importantly they
9 highlighted other key aspects of employability including, the ability to; ‘gain initial
10 employment’, ‘maintain employment’, ‘obtain new employment’ (if required), and be ‘able to
11 manage their own employment transitions between and within organisations’. They also
12 included consideration of the ‘quality’ of such work or employment in terms of it being
13 appropriate to their level of skill or education.
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23 This line of thinking and analysis was taken further in perhaps the most widely cited
24 definition of employability from Peter Knight and Mantze Yorke, who defined it as:

25 *‘A set of achievements – skills, understanding and personal attributes – that makes*
26 *individuals more likely to gain employment and be successful in their chosen occupations,*
27 *which benefits themselves, the workplace, the community and the economy’*
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36 They proposed a model with four inter-related elements known by the acronym USEM (Yorke
37 and Knight, 2002). The elements highlighted by this were Understanding, by which they meant
38 something more in-depth than just knowledge about a particular subject and basic skills, as one
39 might expect to gain from thorough engagement with a program of learning in higher education;
40 Skills i.e., Going beyond basic skills they highlighted what they called relevant ‘*skilful*
41 *practices*’, which require an awareness and understanding of context and reflect some level of
42 expertise, not just the ‘key skills’ which are often stated as important in more routine work.
43 Efficacy beliefs were presented within the concept of Mindset (Dweck, 1999), the belief that
44 ability can be changed (incremental) or is unchangeable (fixed). Individuals with an
45 incremental Mindset were more likely to overcome difficulties in the face of challenges, was a
46 critical aspect of employability and finally was the term they chose to describe the other
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3 important contributors to the process of employability development; including, learning to
4 learn and reflection.
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8 The USEM model (Knight & Yorke, 2002, 2006) and the CareerEDGE model (Dacre
9 Pool & Sewell, 2007, 2020) are especially relevant to this paper, since both appear to
10 explicitly address psychological components of Employability. In the latest iteration of their
11 model, CareerEDGE+ (Dacre Pool & Sewell, 2020) the development of a person's
12 'employability' suggests self-esteem and resilience as outcomes of employability. .
13 Strycharczyk et al., (2021) present a 'Mental Toughness' framework where resilience
14 elements of 'Control' and 'Commitment' are combined with 'Confidence' and 'Challenge'
15 which are about having a positive attitude (Perry et al., 2021).
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27 Both Dacre Pool & Sewell (2007) and Knight and Yorke (2002) highlight the
28 importance of self-theories and efficacy beliefs, which although these are closely related to
29 motivation theories in psychology, the motivational aspects are not explicitly highlighted or
30 elaborated in either of these frameworks.
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37 Other employability scholars have argued the need for a much broader
38 conceptualisation of employability acknowledging the importance of societal and other
39 contextual issues in addition to individual aspects. To pull the many strands of employability
40 research together, Clarke (2018) proposed a 'graduate employability framework'. This
41 encompasses aspects of 'Human Capital', such as skills, competences and work experiences,
42 'Social Capital' including networks, social class and university rankings, 'Individual
43 Behaviours' such as career self-management and career building skills and finally,
44 'Individual Attributes, like personality variables. In this framework these elements are also
45 influenced in turn by two other inter-related factors, namely the individual's 'self-perceived
46 employability' as in their views of their chances of securing work and the volatilities
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3 associated with the labour markets that they find themselves in. Whilst this helpfully
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5 illustrates the broader range of factors both within and beyond the individual, it also
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7 highlights why employability is such a potentially perplexing area for research.
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11 Akkermans et al., (2023) have expressed concern about what they call two separate
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13 but related lines of employability research, which are ‘worker employability’ that focuses on
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15 career issues of employees and ‘graduate employability’ typified in models that we have
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17 examined earlier. They suggest that these two areas of research have considerable overlap
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19 and should be studied in conjunction, which was also proposed by Romgens et al., (2020) in
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21 their comprehensive review of employability in the workplace and employability in Higher
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23 education. Whether we use the evidence from worker or graduate employability, the point of
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25 this paper is to discuss how motivational theory could be used in either set of theorising.
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31 To summarise, across the wide range of theories of employability, there are features
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33 of theories that imply, directly allude to or specifically identify elements of motivation. In
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35 some models, these features e.g., self-efficacy, either drive or are consequences of
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37 employability-related theorising. Other theories point to more sociological and systemic
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39 explanations. For the purposes of this paper, we want to focus on which theories of
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41 motivation might be most useful for understanding employability. In particular, we will focus
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43 on adaptive and maladaptive motivation.
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Motivation related to employability.

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51 In this second section, our discussion of motivation will focus on a question currently
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53 not addressed in the employability literature but prominent in the motivational literature. The
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55 question we address is whether the goal of employability is motivationally adaptive for
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57 students. Here we focus specifically on the situation of the student in higher education rather
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3 than the case of the employee who already has a job. The language therefore appears to be
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5 more relevant to career-skills types of models but the concepts addressed seem to us to
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7 potentially apply to types of models. We firstly explain how the goal of obtaining skills for
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9 employment is potentially problematic because, according to a range of theories, targeting an
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11 extrinsic goal has detrimental effects on outcomes such as interest and engagement. As we
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13 progress through the nuances of theory, we explain how and under what conditions,
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15 engagement in activities targeted at employment can be adaptively motivating.
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Intrinsic and Extrinsic motivation

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23 For most of us, the terms “intrinsic” and “extrinsic” have been synonymous with an
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25 understanding that individuals engage in activities because of the pure enjoyment of engaging
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27 with a task (intrinsic) or because we are trying to achieve a specific outcome (extrinsic).
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29 Intrinsically motivated tasks are those we have most interest in whereas extrinsically tasks are
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31 engaged in for the valued outcomes. For example, we may engage with a crossword puzzle
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33 because we really enjoy the challenge of completing crossword puzzles (intrinsic), or we may
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35 engage with the task because there is the potential of a \$100 prize for completing the puzzle
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37 (extrinsic). But what do these intuitive understandings tell us about the motivation for
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39 engaging with activities relevant to career skills? For example, are individuals who engage in
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41 vocational subjects such as nursing and teaching intrinsically motivated? Are individuals
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43 who focus on subjects that offer high-paying job prospects purely extrinsically motivated?
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45 Can individuals be both intrinsically and extrinsically motivated? And what about individuals
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47 who are undecided about the career they wish to follow?
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54 To answer these questions, we firstly need to clearly understand what counts as an
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56 intrinsically or extrinsically motivated behaviour. Cognitive Evaluation Theory (CET) was
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58 first proposed by Deci (1975, p.129-158) who suggested that motivation was a function of
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3 cognitive beliefs. For Deci, tasks* themselves were not intrinsically or extrinsically
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5 motivating, it was the degree that individuals believed the reason they were engaging with
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7 tasks was because they wanted to (intrinsic) versus because they had to (extrinsic). (*For our
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9 purposes, think of tasks as modules, placements or assignments related to the outcome
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11 employability). Deci referred to these beliefs as locus of causality, that is, is it me that
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13 causing me to do this task or is it something/someone else? When locus of causality
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15 changed, so did the type of motivation (see Lepper, Greene & Nisbett, 1973; Lepper &
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17 Greene, 1975).

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22 There are two important theoretical implications for the findings by Lepper and
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24 colleagues, *The first is that changing beliefs about why we think we are engaging in a task*
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26 *affects the type of motivation and subsequently the behaviour we engage in.* In other words,
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28 the time we spend at a task is function of the degree to which we believe we are engaging in
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30 the activity because we want to versus because we have to. The second implication is that
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32 reasons for engagement are largely subconscious or latent, a conclusion consistent with the
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34 early theorising of achievement motivation. Evidence consistently shows that when rewards
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36 are introduced into activities that have previously been thought of as intrinsically motivating,
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38 engagement in those activities reduces (Koestner, Ryan, Bernieri & Holt, 1984; Koestner,
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40 Zuckerman & Koestner, 1987). To summarise, inculcating an external reason for engaging
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42 with a task, either overtly or implicitly, is likely to create an external locus of causality.
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49 Applying the early findings from Deci and colleagues' work on intrinsic motivation to
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51 the topic of this paper, it is logical to suggest that when students feel they are working
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53 towards any activity that focuses on future employment, this is an external reason for
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55 engagement and as such is likely to inculcate an external locus causality. Put simply, students
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57 who work towards career-related outcomes are extrinsically motivated.
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Organismic Integration Theory

Deci's (1975) seminal work on intrinsic motivation spawned an industry of research examining features of intrinsic and extrinsic motivation. Many researchers who are not interested in motivation are probably still aware of Self-Determination Theory (SDT). SDT theory became the meta-level explanation for all motivated behaviour that suggested that across all activities, individuals are motivated by three basic needs, feelings of autonomy, feelings of competence and feelings of relatedness. Optimal psychological functioning occurs when individuals have all these needs satisfied (see Martela & Ryan, 2023 for recent review and extension of theory, Ryan & Deci, 2017)

From being *the* explanation of motivated behaviour, Deci's Cognitive Evaluation Theory (CET) now sits as one of six mini-theories within the broad spectrum of SDT. For the purposes of this paper, we are going to look at one of these mini-theories, namely, Organismic Integration Theory (OIT) because we feel it captures motivation when students engage in tasks related to highly-valued employment opportunities e.g., vocational degrees, specific modules/classes highly relevant to a desired employment opportunity. OIT theory examines motivation that occurs when behaviour is instrumental, that is, behaviour targeted at an external outcome (see Deci & Ryan, 2017, pp.179-215; Pelletier & Rochii, 2023). In this paper, we have argued, using unconscious cognitive evaluations e.g., CET as the explanatory mechanism, that tasks targeted at employability inculcate an external locus of causality and are, by definition, extrinsic. We have also provided (early) evidence that when individuals are extrinsically motivated, they operate less optimally than when they are intrinsically motivated (Deci & Ryan, 1985). On the face of it, working towards employment-related outcomes is motivationally problematic.

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OIT theorists resolve the problematic nature of extrinsic motivation by introducing the concept of internalisation (Deci & Ryan, 2017, pp.181-184). Internalisation refers to the degree to which tasks are consistent with the values of the individual. Discussed in terms of social values by Deci and Ryan (*ibid*), we can translate those values to what the task means in relation to a valued outcome. For example, a student studying for a nursing degree may value a task related to a specific feature of caring for a patient more than maybe an abstract task e.g., learning statistics. For this student, different employment-related tasks are likely to engender different levels of internalisation.

OIT theory suggests that there are four distinct categories of internalisation that sit on a continuum. On the least adaptive (most extrinsic) end of the continuum is *external regulation*. Here, a student may engage with a task e.g., a statistics class, to obtain the reward e.g., a pass grade. They may not value or relate to the task so their perception for engagement will be purely external with concomitant decrements in motivationally-adaptive behaviours e.g., persistence (Mossholder, 1980, Ryan, 1982), Deci & Ryan (*ibid*, p.185) refer to this as *external perceived locus of causality* [E-PLOC] and in this instance, the reason for engagement in the task is because the individual has to complete the task to complete their degree.

Moving down the continuum, the next category is *introjected regulation*. Here the regulatory control (E-PLOC) is still external, but the externality is powered by the individual believing they are going to be judged by another. For example, a student may be given a formative task but feels impelled to complete the task to obtain approval or not complete the task at all to avoid disapproval. *Introjected regulation* is almost a type of personality characteristic because it refers to the concern of being judged even when a) the person is not being judged or b) they are being judged positively (Nix, Ryan, Manly & Deci, 1999).

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The first two categories of OIT are examples of individuals engaging with activities with unhelpful motivational orientations. But what about students who do not just want to get a grade and get out of the module (external regulation) or do not let their ego become involved in engagement with employment-related tasks? Categories three and four of OIT offer a far more promising picture.

Category three in OIT refers to *identification*. Here individuals operate with a more internal locus-of-causality (I-PLOC) meaning that the tasks they identify with the tasks they engage with, that is, they recognise the importance and value of the task. For example, student completing a degree in forensic psychology might recognise the value of a statistics class because they are interested in examining data to look for patterns in offender profiles. *Identified Regulation*, in this sense, is a recognition of the value of the task for an imagined (or real) end purpose.

Understanding category three becomes clearer when we look at category four, *Integrated Regulation*. Integrated regulation is when not only does the individual recognise the value and importance of engaging with a task, the value and importance are congruent with their values and what *they* feel is important. For example, a student may recognise the value and importance of a statistics class, but they may not particularly value statistics in itself. In this case, they would operate with identified regulation. However, if they fundamentally appreciated the value of statistics not just a means to an (employment) end, but for its own sake, then here the student would operate with integrated regulation.

The consequences of operating with different extrinsic motivations divides itself along the evidence for operating with intrinsic and extrinsic motivation. For example, Guay et al., (2013) found positive relationships between identified regulation and achievement but negative relationships between external regulation and achievement (see also Guay, Ratelle &

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Chanal, 2008). In other words, being extrinsically motivated *but* identifying with the task one is engaging in can be adaptive.

In summary, when we view engagement with employment-related tasks in terms of self-determination theory, we suggest a) students are likely to be extrinsically motivated but b) can be adaptively motivated when they operate with identified forms of motivation. The core determining feature of adaptive motivation within identification is the concept of “value” and it is to this feature we move next.

The early achievement motivation theorists suggested that motivated behaviour could be explained in terms of expectations of success and the value placed on the activity (Eccles et al., 1983; Wigfield & Eccles, 1992). Taking expectations of success first, SDT theory places the need for competence as a fundamental driver of motivation (Deci, 1975; Deci & Ryan, 1985) and recent reviews across all contemporary achievement motivation theories (e.g., Elliot, Dweck & Yaeger, 2017) offer explanations how competence plays a role across a range of over 20 theories. If a need for competence is an explanatory driver for motivated behaviour, then it is not difficult to understand why expectations of success determine engagement in tasks (e.g., Harter, , 1985).

The concept of value however has been more nuanced. Rokeach (1973) described values as beliefs about desired end states which Eccles et al., (1983; see also Eccles & Wigfield, 2000; Wigfield & Eccles, 2020) broke down into three categories, attainment value (the value of doing well at a task), intrinsic value (the enjoyment of engaging with a task) and potentially most relevantly for our analysis utility value (the value of a task in terms of the individual’s long-term plans).

Given the finding that autonomous forms of motivation are positively related to achievement and external forms are motivation are not (Guay et al., 2013; Guay, Ratelle &

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Chanal 2008), it would be reasonable to expect that intrinsic, attainment and utility value would also show the same patterns i.e., intrinsic value positively related to grades, but utility value negatively related to grades. Surprisingly, the findings do NOT support this claim. For example, Trautwein et al., (2012) study of 2,508 secondary-school students in Germany found that all forms of value *positively* predicted both English and Math grades (see also Nagenghast et al., 2011). In other words, higher value, regardless of type of value, predicts grades. However, the story is not so simple. Wigfield, Rosenzweig & Eccles (2017, p. 120-121) explain that values are only predictive when coupled with high expectations of success. Where value is high and expectations are low, studies have shown that students tend to procrastinate and cheat more (Lee, Bong & Kim, 2014). In other words, *utility value is only useful when expectancy of success is high*. When expectations of success (e.g., at employability-related tasks) are low, then the behaviours and achievement consequences are likely to be negatively affected. Extrinsic motivation may seem a reasonable explanation why employment-related tasks may be problematic, but the crux is how that external-related outcome (to get a job) aligns with the confidence to complete the employment-related task.

The Undecided student

Having focussed on students who see varying degrees of employment-related value in the tasks they engage in, we now examine the students who might be classed as “undecided”. Undecidedness has been examined in a number of ways. For example, Santos, Ferreira and Gonclaves (2014) found that career decidedness was (significantly) positively related to self-esteem and negatively related to anxiety. In other words, the more decided a student was, the less anxious they were. In a three-wave longitudinal study, Guay et al., (2006) differentiated between developmentally and chronically undecided students finding that students who were developmentally undecided improved their (career) self-efficacy over time whilst chronically undecided students did not. Research on career decidedness (as a state) has been examined

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3 alongside the general trait of decisiveness i.e., the capacity to be decisive (Santos et al., 2014;
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5 Chason et al., 2013) but what may be useful to these bodies of research is the examination of
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7 value, especially utility value. For example, are undecided students undecided because they
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9 are unsure of the future value of the employment they are considering? Sampson's Cognitive
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11 Information Processing Theory (CIP, Sampson et al., 2004) suggests occupational knowledge
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13 is important but the model does not include a measure of utility value. We suggest that an
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15 important component of decidedness is the concept of task value because it (potentially)
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17 forms part of the mechanism behind the undecidedness. Even if students have good
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19 knowledge of the job they may be interested in, the type of value they place on the job e.g.,
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21 intrinsic or utility, may help us understand why they are undecided.
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Models of employability in relation to motivation theory

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30 In assessing the motivation of undecided students, we touched upon some theories of
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32 employability and how value (from expectancy-value theory) may be useful additions to that
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34 body of theorising.
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38 In section one of this paper, we highlighted how many theories regardless of the
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40 angle they approached employability included self-efficacy in some part of their model e.g.,
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42 Romgens, Scoupe & Beusaert (2021, Table 2 and 3 p.2597-2598), , This is undoubtedly the
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44 case but what seems to be underplayed in the models is the *interactive effects* of value
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46 alongside efficacy. Even when utility value is high, it is students' confidence that determines
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48 their subsequent engagement behaviours and performance. The interaction between
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50 confidence and value does not seem to be part of any current model of employability.
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52 Suggesting that self-efficacy is an outcome or an antecedent within a model misses out the
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54 crucial role of value.
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3 Similarly, there seems to be very little attention paid to contemporary expectancy-
4 value theory (EVT) (Eccles & Wigfield, 2000; Wigfield & Eccles, 2020) which, given that
5 utility-value is a specific feature of EVT seems theoretically problematic. Emerging evidence
6 using latent-profile analysis suggests that individuals' profile of values strongly determines
7 their levels of engagement and performance (e.g., Guo et al., 2015). In a recent study,
8 Putwain, Mallaburn & Held (*in prep.*) identified four subjective-task value profiles which
9 suggested that *cost*, that is, the downsides associated with a particular activity e.g., the cost of
10 missing out on other activities and include effort cost (whether the effort required by a task is
11 worthwhile) (Eccles et al., 1983) were important predictors of aspiration and achievement.
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24 The importance of perceptions of value cannot be under-estimated so much so that
25 motivational theorists have recognised the importance of utility-value and created
26 interventions to improve students' levels of utility-value (e.g., Gaspard et al., 2015;
27 Harackiewicz et al., 2016; Hulleman et al., 2010, 2017; Rosenzweig et al., 2019). For these
28 utility value interventions to be effective, several processes need to occur. Researchers argue
29 that it is critical that students make specific connections between themselves and their course
30 material during an intervention (Hulleman & Cordray, 2009; Hulleman et al., 2017). Students
31 also need to relate personally to the connections being made (in these cases the examples
32 were mostly STEM subjects) (Harackiewicz & Priniski, 2018). More worryingly, Sutter,
33 Hulleman, Givvin & Tucker (2022) found that in a longitudinal study, utility-value tended to
34 decrease over time (no differences for gender and race).
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50 It is curious why value has not been incorporated into models of employability given
51 its prominence in explaining the general motivation of students across the educational
52 spectrum. It may be that employability (implicitly) infers that students value getting a job;
53 that logic seems reasonable. However, the evidence from EVT research suggests that the
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3 *degree* of value and most importantly, its interaction with expectations of success, suggests
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5 that adding value to extant theorising and empirical work would be fruitful.
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9 In summary for this section, it is clear that motivational and employability theorists
10 are interested in common themes e.g., how students' employment-related skills influence
11 ongoing grades, motivation, job prospects and job outcomes and what type of trait and state
12 characteristics predict a range of outcomes. It is also clear that there is considerable overlap
13 between the motivational research that broadly examines the individual difference predictors
14 for students across a range of contexts that are not employment-skills related. In this paper,
15 we have tried to identify some key areas where employability research may benefit from
16 engagement in additional variables e.g., value and specific research findings e.g., the
17 value/self-efficacy interaction.
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Further research in employability and motivation

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33 In this fourth section, we identify possible lines of research in the field of
34 employability and motivation.
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38 Unsurprisingly, the primary area of research we would like tested is how the value-
39 self-efficacy interaction plays out in current models of employability. So far, the evidence
40 suggests the value-self-efficacy relationship is a useful predictive antecedent, but this does
41 not mean value and self-efficacy are not also outcomes. This brings us to the second area of
42 further research which is the use of longitudinal designs to test current models e.g., Presti,
43 Capone, Aversano & Akkermans (2021). Whilst some cross-section modelling can be
44 appropriate e.g., Nimmi, Kuriakose, Donald & Mowfal (2021), tracking changes in self-
45 efficacy and value helps to control for autoregression i.e., the importance of a variable at time
46 X taking not account its importance at time Y, when we want to examine students'
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3 motivation over time. Understanding when self-efficacy is best evidenced as a predictor or
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5 outcome (or both) would provide practical and theoretical clarity.
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8 As a very specific line of enquiry, as we have shown, utility value and low
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10 expectations have been shown to be motivationally problematic, causing students to engage
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12 in cheating and procrastination (Lee, Bong & Kim, 2014; Hensley, 2014; Lee, Lee & Bong,
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14 2013) and stress (Guo et al., 2015). However, these studies have been completed largely in
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16 school-aged participants rather than higher education. We would certainly welcome more
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18 research examining value profiles in higher education samples.
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23 In summary, through the testing of value and self-efficacy using cross-lagged
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25 longitudinal designs would help us understand how students' motivation for engaging in
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27 employability (career-skills) tasks during their time in higher education can tell us when
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29 motivation is likely to adaptive and maladaptive. This does not preclude the examination of
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31 the range of demographic and other individual differences posited across the range of models,
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33 and nor does it preclude models that focus on employees already in work. What we are
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35 suggesting is that *any* model of employability that inculcates self-efficacy should consider the
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37 interactive importance of (forms of) value, particularly the differences between intrinsic and
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39 utility value.
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Practical implications

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47 Despite the seemingly theoretical nature of this paper, there are important practical
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49 implications, namely, the development of appropriate curriculum. For example, as we have
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51 explained in this paper, it is the *interaction* of self-efficacy *and* value cf. not *just* self-efficacy
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53 that explain adaptive motivation. A (career-skills) curriculum that focuses on self-efficacy
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55 without also focussing on value is likely to be sub-optimal in terms of eliciting adaptive
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57 motivation. So practically, whilst this paper serves as a vehicle for model development
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(theoretically) the crucial distal goal is appropriate curriculum design. In short, understanding which features of career skills development create adaptive and maladaptive motivation should help educators create curriculum that produce optimal engagement and performance.

Conclusions

Ultimately, whether you are an employability theorist or a motivational theorist (or both), our common aim is the creation of the most appropriate curriculum and/or set of interventions that optimise student engagement and achievement for relevant career skills. Understanding what drives different behaviours are *the* explanatory tools and what we hope this paper has done is suggest some additional tools that might be useful in the employability theorising toolkit.

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