

Using the hybrid model of learning in personality to predict performance in the workplace

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Abstract

The hybrid model of learning in personality (Jackson, 2005; 2008) argues that Sensation Seeking (a biologically based scale of high approach and low avoidance) provides an exploratory drive which is mediated by mastery goal orientation in the prediction of functionally learnt behaviour such as work performance. It is argued that other socio-cognitive mechanisms will also re-express Sensation Seeking towards functional learning. Failure to re-express the exploratory drive leads to dysfunctional learning and delinquency. Using published data from several studies, I contrast the hybrid model of learning in personality with the Big Five model of personality in terms of its theory, predictive capacity and application. Results generally suggest that practitioners may gain better insights into personality in the workplace using the hybrid model compared to the Big Five.

Introduction

A simple analogy provides an easy way to understand the hybrid model of learning in personality. Think of an arrow shooting through the air. An arrow will fly true to its target if:

- It has sufficient momentum (Sensation Seeking drive)
- The angle of flight is correct (Goal Oriented Achiever)
- The flight of the arrow has been well planned (Conscientious Achiever)
- The arrow is flying towards a target that has been well chosen (Emotional Intelligent Achiever)
- The arrow has been launched by someone who has put sufficient thought into the process and who understands the process such that they can plan for and react to changing circumstances (Deep Learning Achiever)

The hybrid model of learning in personality is a theory based model of personality which provides a way of understanding the processes which underlie functional learning that lead to successful work

performance, and dysfunctional learning which leads to anti-social behaviour in the workplace. The process model of the hybrid model of personality contrasts with the Big Five model of personality (e.g. Costa & McCrae, 1992) which is primarily based on exploratory factor analysis and which aims to provide a parsimonious social construction of personality. Problems with the Big Five model are noted in Block (1995) although it should be noted that this model of personality appears to possess considerable validity (e.g. Salgado, 1997).

The “arrow in flight analogy” illustrates the hybrid model of learning in personality but behind the analogy lies a process model which aims at uniting biological, socio-cognitive and experiential theories of personality (Jackson, 2005; 2008). The biological models of personality are championed by Eysenck (1967) and Gray and McNaughton (2000), but perhaps the most persuasive evidence for a biological basis of personality lies in the Sensation Seeking-Impulsivity cluster of traits such as identified by Zuckerman (1994). To date, biological models of personality have made little impact in organizational psychology (Furnham & Jackson, 2008). Sensation Seeking is argued to have a biological basis associated with dopamine and testosterone which tends to lead to risk taking behaviour. However a small amount of evidence also suggests that Sensation Seeking underlies exploratory behaviour (Ball & Zuckerman, 1992) unassociated with reinforcement (Pickering, 2004). Jackson (2005; 2008) extends this argument to suggest that Sensation Seeking represents a drive for curiosity and exploration which can lead to functional or dysfunctional learning outcomes. It represents therefore the undirected energy of the arrow such that high Sensation Seeking will have a tendency to fly a long way towards its target.

There are several major socio-cognitive theories of personality which are usually seen as separate to the biological. One of the most prominent is that of goal orientation (e.g. Dweck & Leggett, 1998; Vandewalle & Cummings, 1997), in which learning goal or mastery goal orientation provides a mechanism through which

cognitive resources are allocated towards problem resolution leading to the development of self-efficacy (e.g. Bandura, 1999). Goal Oriented Achievers, in Jackson's (2005; 2008) model, are the people who understand that success comes from mastering problems through allocation of cognitive resources towards achieving difficult outcomes (such that the arrow flies at a high trajectory towards a hard and distant target).

O'Connor and Jackson (2008) provided a series of studies examining how Goal Oriented Achievers re-express Sensation Seeking towards the achievement of functional outcomes (i.e. specifying Goal Oriented Achievement as a mediator of the relationship between Sensation Seeking and positive performance outcomes). Results from school children, an experiment looking at maze performance, and in the workplace provided evidence that Goal Oriented Achiever mediated Sensation Seeking in the prediction of performance. Interestingly, O'Connor and Jackson (2008) also reported that dysfunctional performance resulted from the direct expression of Sensation Seeking once the indirect pathway of Goal Oriented Achiever was partialled. The conclusion from this research is that the positive effects of exploration occur when re-expressed through socio-cognitive mechanisms whereas the direct expression of Sensation Seeking results in anti-social behaviour.

Further evidence for this model was also provided by Jackson, Hobman, Jimmieson and Martin (2009) who reported that the hybrid model of learning in personality predicted university self reported performance, leadership, self-reported work performance and supervisor rated work performance better than the Big Five model of personality and many other models of personality.

Jackson (2005; 2008) argues that other socio-cognitive scales are also necessary for functional work performance. Planning, perseverance and social responsibility (Conscientious Achiever) is seen as a further important predictor of work performance and has some similarity to Conscientiousness in the Big Five model of personality which is known to be predictive of work performance (Mount, Barrick & Stewart, 1998). The planned flight path of an arrow towards its target is more likely to be successful than one which is unplanned.

Moreover, an arrow will only hit a *desirable* target if the target is chosen through being rational and logical (Emotionally Intelligent Achievers). People who are easily swayed, dependent upon others and chance may well choose inappropriate targets and get themselves into trouble. Evidence from Jackson (2005, 2008) and Jackson et al. (2008) is that Emotionally Intelligent Achiever positively predicts functional performance such as work outcomes and negatively predicts

dysfunctional outcomes such as high psychopathy. Jackson, Baguma and Furnham (submitted) provide evidence from Australian and Ugandan students of indirect pathways from Sensation Seeking through the other socio-cognitive scales to Emotionally Intelligent Achievement and finally to Grade Point Average.

Finally, Jackson's (2005; 2008) model incorporates a Deep Learning Achiever scale which takes inspiration from the experiential model of learning (e.g. Kolb, 1984). From this perspective, high performance results from proactively searching for depth, background and theory as opposed to just being expedient. Here the arrow flies true in the hands of someone who knows deeply about the bow, the arrow and flight as opposed to someone who has just focused their knowledge on the simple operation of drawing an arrow.

Siadaty and Taghiyareh (2007) offered students training in Conscientious Achievement and Sensation Seeking but reported only success in training for Conscientious Achievement. This is in accord with the proposed hybrid model of learning in personality since the socio-cognitive scales are meant to be open to change and intervention whereas Sensation Seeking, with its more biological basis, is much less malleable. Cloninger, Syrakic, and Przybeck (1993) have a similar perspective concerning the fixed nature of biological scales (termed temperament in their model) and the changeable nature of socio-cognitive scales (termed character in their model).

The hybrid model of learning in personality therefore has a basis from several different research foci and the model is summarized in Table 1.

Table 1: Principal relationships between Jackson's hybrid model and other models of learning and personality

Research Focus	Hybrid model	Source
Biological	Sensation Seeker: High approach and low avoidance measuring exploration and curiosity	Sensation Seekers (Zuckerman, 1994)
Socio-cognitive	Goal Oriented Achiever: Mastery on long term and hard outcomes	Goal orientation (Dweck & Leggett, 1998; VandeWalle & Cummings, 1997)
Socio-cognitive	Conscientious Achiever: Perseverance, responsibility and understanding	Conscientiousness (Costa & McRae, 1992)

	about the complex social world	
Socio-cognitive	Emotionally Intelligent Achiever: Provides rational and logical thinking	Low Neuroticism (Eysenck, 1967) and high emotional intelligence (Petrides & Furnham, 2000)
Experiential	Deep Learning Achiever: Provides well thought out and well constructed outcomes	Deep knowledge (Kolb's 1984 model of experiential learning)

Jackson, Baguma and Furnham (submitted) propose and test a series of indirect pathways from Sensation Seeking to academic performance which provides a way of understanding how Sensation Seeking is re-expressed through complex cognitions which lead to the development of rationality. In the first pathway, Goal Orientated Achiever provides the high Sensation Seeker with long term allocation of cognitive resources towards solving problems and the self-efficacy to achieve success. In turn, the ability to master long term plans in functional learners leads to the Emotionally Intelligent Achiever, which emphasizes rationality and emotional independence, and this in turn leads to improved optimal performance.

In the second pathway, functional learners are those who re-express Sensation Seeker as deep learning, conscientiousness and rationality. This path argues that functional success can be explained by a process through which Sensation Seeking is re-expressed through a series of higher order experiences and cognitions in which curiosity leads to the rationality of the Emotionally Intelligent Achiever through a process of reflecting and sustained hard work. This functional indirect pathway can be summarized as exploring -> reflecting -> persisting -> rationality -> Functional Performance. The order of this pathway has some loose resemblance to experiential learning cycles (as proposed by Kolb, 1984, and later researchers) but has content developed from prominent and widely known biological, socio-cognitive and experiential models. This model is shown in Figure 1. It remains to be seen if these pathways predict functional learning in the workplace.

I am currently analyzing data from 400 Australian workers. Initial evidence from this new data set suggests that the hybrid model of learning is superior to Big Five model of personality (measured as the NEO-IPIP) in the prediction of entrepreneurial skills, dysfunctional behaviour and self-reported work performance.

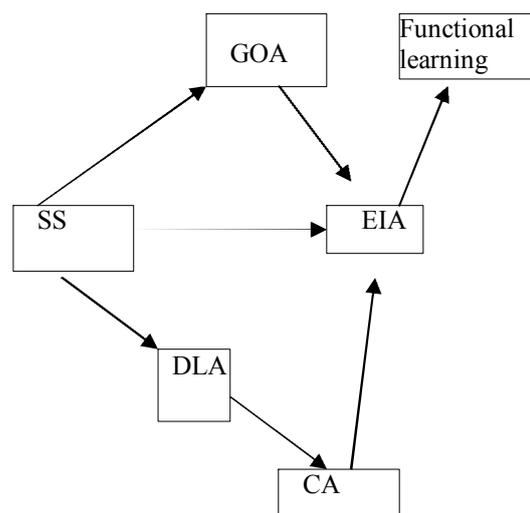


Figure 1: Path model of functional learning

Conclusions

The proposed hybrid model of learning in personality provides an interesting way of integrating biological, socio-cognitive and experiential models of personality (see Table 1 and Figure 1). The hybrid model of learning in personality is a process model of wide applicability and appeal to personality researchers and practitioners. The hybrid model of learning in personality also benefits from near-simultaneous development of a measurement model that corresponds to the theoretical structure. This contrasts with personality models which emphasise measurement at the expense of theory (such as the Big Five model, e.g. Costa & McCrae, 1992), post-hoc theory to match an existing measurement model (e.g., Eysenck's PEN model; Eysenck, 1967), and post-hoc measurement to match theory (e.g., Gray's revised Reinforcement Sensitivity Theory; Gray & McNaughton, 2000) recently operationalised by Jackson (2009).

The proposed model of learning in personality achieves the following outcomes:

- Development of a process model of learning in personality, such that social and experiential cognitions are seen as proximal mediators of a distal biological construct.
- Development of the idea that Sensation Seeking relates to both functional and dysfunctional learning which contrasts with the work of Zuckerman (1994)

who argues that Sensation Seeking generally has negative outcomes.

- A departure from a strict dichotomy of temperament and character envisaged by Cloninger et al. (1993) into more of a continuum flowing from distal biological constructs to proximal socio-cognitive constructs.
- The development of a model of personality which provides direct advice on how to implement interventions such as by training, CBT, coaching and self-development. The hybrid model learning advocates that intervention is most easily and directly undertaken with socio-cognitive scales as opposed to biological scales.
- Prediction of functional and dysfunctional learning outcomes. The proposed hybrid model focuses on the process of learning in personality instead of simply describing personality (as the Big Five model for example sets out to do).
- Development of a model which aims to predict both functional work behaviour and dysfunctional work behaviour better than existing models.

At the same time, it is important to note that research into the hybrid model of learning in personality is still quite limited and much work remains.

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