

Mimetic learning at work



Stephen Billett, Griffith University, Australia

Progression

Learning through circumstances of practice

Mimesis

Mimetic learning

Inter-psychological and intra-psychological
contributions

Personal epistemologies

Practice implications

Implications for theoretical development



Current project: Learning through practice

Identifying how learning arises in the circumstances of practice

Appraising processes in Sino, Hellenic Greek, Anglo, Franco, Germanic, central Asian cultures

Applying findings to contemporary practice

Towards an account of learning through the circumstances of practice, comprising a

- curriculum;
- pedagogy and
- epistemology of practice

Presented early parts of this work here in March 2012



Learning of occupations across human history

Learning through practice - the most common mode of learning occupations across human history

Central to humanity and human progress

Similar processes for learning occurred in Europe, Asia and likely elsewhere.

Family, local workplace or community commonest site for and organisation of that learning (Europe, India (Menon & Varma 2010), Japan (Singleton 1989), China (Ebrey 1996))

This mode of occupational preparation destroyed by industrialisation (Greinhart 2002, Gowlland 2012)

Presents as a process founded primarily on novices' learning rather than them being taught.



Learning in the circumstances of practice

Some pedagogic practices identified – but not many

Story telling, rhymes, heuristics, mnemonics, half-worked jobs, opportunities, and hands-on, etc

Curriculum – lived experiences and intentionally structured experiences (Singleton 1989, Bunn 1988)

Very few historical accounts of direct teaching , across cultures and institutional situations

Teaching a product of modernity and ‘schooled ‘ societies?

Strong emphasis on and reference to active learning processes and positioning of novices as learners

Explanations need to be found outside of the educational discourse – one focussed on learning

Vast majority of it appears explainable as mimesis: observation and imitation, then practice



Mimesis: Imitation and observation

Learning through observation and imitation ... is important in all higher social animals, but it is humans who have developed this propensity into the primary modality for the acquisition of skills. (Jordan 1989: 931)

Imitation

Mimesis comprises the process of observation, imitation and rehearsal (Downey, 2010)

Constitutes innate and foundational bases for humans' construal and construction of their experiencing.

Shapes how they act, particularly when seeking to achieve specific goals (Meltzoff & Decety, 2003)

Much maligned within educational discourse, much more than mimickery (i.e. simple copying)

Higher forms of imitation (Byrne & Russon 1998)

Observation - Understanding goal states

Generative of cognitive representations (i.e. simulations) (Barsalou 2008) and deployment



Role of and focus on mimesis

To appreciate how pervasive and important this mode of skill and knowledge acquisition is in contemporary humans, we need only consider that all childhood socialisation, including the acquisition of language and of the skills of daily living, depends on the ability to imitate and motivation to do so. This is particularly evident in childhood play. In later life as well, most learned action sequences depend on behavioural matching: how to drive a car, how to give a lecture, how to behave at a cocktail party -- for all of these activities the knowledge required to bring them off unproblematically is required through bodily imitation. (Jordan 1989: 931)

Why have I engaged?

Offers a convincing account of how humans learn through all kinds of practice

‘Just doing it’, ‘observing and listening’ and ‘just being there’ – simulations; microgenetic processes – moment by moment learning; how development shapes learning in the immediate moment.

Supported by a range of literature and advances

Also personal experience – how I learnt much of my work and also to survive and engage (street sense)

Conceptual promise

Foundational views - offer some reconciliation between nativist and empiricist perspectives of human development

Nativist – born with capacities

Empiricist – capacities arise through experience

Learning and development – separate, but interdependent

Socio-genesis of knowledge

It also extends accounts of social origins and contributions to knowledge and knowing

Questions the Vygotskian premise of knowledge arising firstly on the social plane then becoming an intra-psychological attribute

Suggests that inter-psychological processes cannot be understood without considerations of intra-psychological

Inter-psychological – that between the person and the social and brute world beyond them

Intra-psychological - the internal processes of the mind, body and brain (neural, sensory processes)

From mimesis to mimetic learning

Processes of mimesis constitute micro-genesis (i.e. individuals moment-by-moment learning) as shaped by and contributing to ontogenetic development

Yet, need to account for:

1. Sensory input going beyond observation (i.e. haptic, auditory)
2. Processes and factors that underpin mimesis: inter- and intra psychological
3. How mimesis can be augmented through practice curriculum and pedagogies.

Proposing all of this more broadly as mimetic learning

Inter-mental or inter-psychological contributions

Contributions from the social and brute worlds beyond the skin

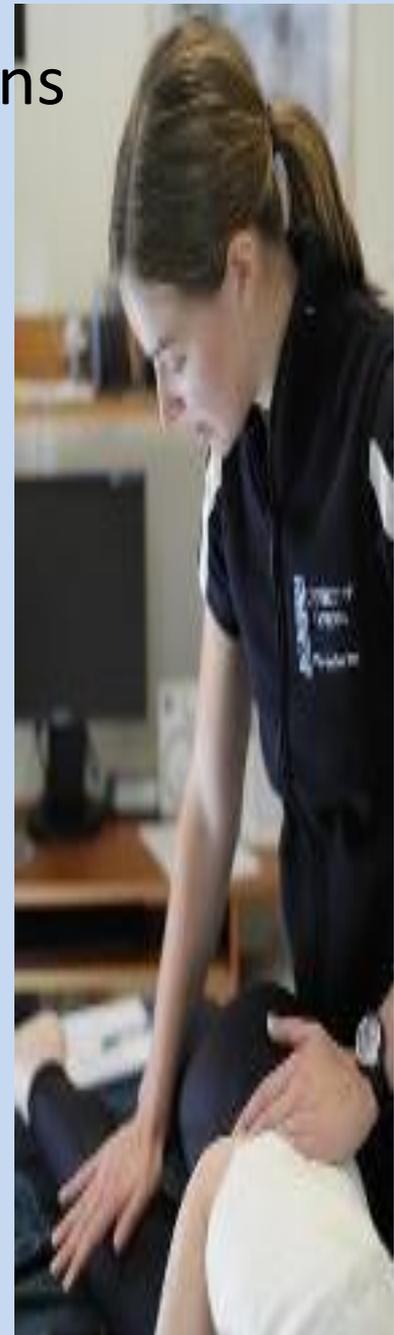
Access to occupational knowledge arisen through history and culture, and manifested in situational practice

Social suggestions – how the social world projects its suggestion

Sensory, visual, auditory contributions arises through experiences of the social and brute worlds – ‘beyond the skin’

Observational contributions arise similarly

Means of constructing and verifying what is learnt through experience



Intra-mental or intra-psychological contributions

Informed by developments within neuro - and cognitive science, some of which remain quite speculative

Multi-modal representations of knowledge drawing on a range of sensory and neural contributions – simulations (Barasolu 2008)

Central to perception-action relationship, also maturation – matters ‘beneath the skin’

Mirror neurons acquire their properties in the course of ontogeny (i.e. socio-genetic) (Heyes 2008)

Superior colliculus - three varieties of maps

“– visual, auditory, and semantic – are spatial register. ... they are stacked in such a precise way that the information available in one map for, say vision, corresponds to the information on another map that is related to hearing or bodily state. There is no other place in the brain for information available from vision, hearing and the multiple aspects of body states so literally superposed, offering a prospect of efficient integration. (Damasio 2010: 83)

Learners' personal epistemological practices

Active engagement and construction (Webb 1999)

Apprenticeship – ‘apprehending knowledge’ – to seize - stealing’, (Marchand 2008)

The Japanese term for apprentice is minarai , "literally one who learns by observation." (Singleton 1989)

learning through apprenticeship occurs through unobtrusive observation referred to as minarai kyooiku. (P.25)

P.26 -- "it is expected that serious learning will proceed unmediated by didactic instruction."



Epistemological practices

Ontogenetic ritualisation (Tomasello 2004)

Assent (Mishler 2004) and learner readiness (Bunn 1999, Singleton 1989)

Embodying knowledge (Jordan 1989, Lakoff & Johnson 1999, Reber 1992)

Deliberate practice (Ericsson, 2006, Gardner 2004, Sinclair, 1997)

Imitation (*mimesis*) (Jordan 1989, Tomasello 2004, Gardner 2004, Marchand, 2008)



Contributions to adults' learning and development

Informs the debate between nativist and empiricist perspectives of human development

Necessitates consideration to accommodate both the inter- and intra-psychological (inter and intra-mental) processes – need to account for beneath the skin

Offers fresh considerations of human learning and development and the socio-genesis of knowledge/learning

Emphasises interdependence between social and personal factors

Particular relevance for learning outside of circumstances of direct instruction – i.e. most of learning,

But, also to what happens in interpersonal interactions such as in educational settings

So what?

Offers fresh speculation and premises for informed inquiry about learning per se, within schooled societies

Points to an emphasis on learning through active experiencing rather than teaching

Not asocial – nothing more social than individuals' ontogenies, and their interdependence with the social world

Opens up the nature of socio-genetic inquiry, (which is floundering)

Assist understand how humans learn within and outside of circumstances providing inter-personal (inter-mental) exchanges

Points to understanding perennial problems such as adaptability (transfer), bases for promoting cognition and emphasizes within educational and practice-based provisions