Redesigning Work Design
Research and Theory: New Directions

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Keynote Address
Better work design can help...
(1) What is work design (and re-design?)

(2) What do we know about work design?

(3) What don’t we know? (Future Directions)
Work design is: "the content and organizing of tasks, activities, relationships, and responsibilities within a job or role, or set of jobs/roles" (Parker, 2014)
Example 1 ‘redesign’

Standard midwifery model

Pre-natal

Birth

Post-natal

Midwife A-C ➔ Midwife D-G ➔ Midwife H
Example...

Midwife A x multiple ‘cases’
- Pre-natal
- Birth
- Post-natal

Midwife B x multiple ‘cases’
- Pre-natal
- Birth
- Post-natal

Midwife C x multiple cases
- Pre-natal
- Birth
- Post-natal

Caseload midwifery model
Outcomes

For patients and the hospital

- Caseload work design:
  - fewer elective cesarians; more spontaneous births
  - less postpartum blood loss
  - faster discharges
  - more babies breastfed
  - $556 cheaper per woman
  [reported by Stacey et al., 2013, Lancet]

- Standard work design (N=877)

1748 pregnant women

- Caseload work design (N=871)

Randomly assigned

For midwives

(Johnson & Parker; same sample – preliminary results)

Significantly better work design:
- More Job Resources
  - Greater skill variety
  - More task significance
  - Greater task identity
  - More job autonomy

Better outcomes
- Lower intention to quit
- Higher job satisfaction
Example 2

• Introduction of 5 minute inter-professional briefings prior to surgical list
  – Anaesthetists, surgeons, trainees, nurses
  – Increased role clarity; team autonomy

• Preliminary findings:
  - 30% efficiency gain
  - More staff engagement
  - Increased voice

Carpini & Parker, in prep.
Many Other Examples

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<td>Multiskilling/increased task variety</td>
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See: https://www.comcare.gov.au/__data/assets/pdf_file/0003/145236/Professor_Sh
(1) What is work design (and ‘re’design?)

(2) What do we know about work design?

(3) What don’t we know? (Future Directions)
Job demands-control (strain/health) (Karasek, 1979)

Job demand-job resources model → Strain/burnout (Demerouti et al., 2001)

Role theory/role stressors/role performance (Kahn et al., 1964)

Teams, autonomous work groups, sociotechnical systems theory (Trist & Emery, 1951)

Job characteristics model (Hackman & Oldham, 1975)

Job demand-job resources model → Strain/burnout (Demerouti et al., 2001)

Role theory/role stressors/role performance (Kahn et al., 1964)

Teams, autonomous work groups, sociotechnical systems theory (Trist & Emery, 1951)
Impact

• On management thinking
  – Analysis of 178 HBR articles in 2014
    • 24% on work design topics
    • 24% highly relevant to work design

• On practice & policy?

EXAMPLE

• Kuehn (2014) on how, in response to more AIDS patients in Uganda, teams introduced “task shifting” involving pharmacists doing some Drs’ tasks, freeing up Drs’ time for patient care.
(1) What is work design (and ‘re’design?)

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Future Directions

Beyond expanding and refining existing approaches... see Parker et al., 2017; Parker, 2014; Others

(1) Antecedents of work design

(2) Designing work for ‘growth’/adult development

(3) Proactively designing jobs to improve future work

Despite the evidence...

- People do not have universally well-designed jobs....
  - Growing low-wage/ low-quality jobs in advanced & developing economies (Osterman & Schulman, 2011)
  - Increasing gap between “good jobs” and “bad jobs” (Kalleberg, 2011)
  - Evidence from many large scale surveys (e.g., European Working Conditions Survey)

![Bar chart showing job quality distribution: 14% high-paid, 37% well balanced good jobs, 29% poorly balanced, 20% poor quality jobs, with 50% poor jobs highlighted.](image-url)
And work redesign is often neglected as a strategy.
Why does poor work design continue?

Figure 1. Framework of Work Design Influences

See review by Parker, Van den Broeck, Holman, in press, *Academy of Management Annals*
Approach-oriented temperament (e.g., approaches new situations)

Avoidant/ insecure temperament

Which (if any) baby will end up with enriched work design?

Liu, Parker & others (in prep).
Raine Study

- Alternative explanations
- Moderators?

Liu, Parker & others (in prep).
Why does poor work design continue?

Figure 1. Framework of Work Design Influences

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Local work design decisions matter

- ‘Naïve’ job designers tend to ‘naturally’ design Tayloristic jobs, Campion & Stevens (1991)
  - Descriptive only
  - We replicated in pilot work

- Less than 3% (2%) tried to design motivating jobs
- Sometimes 3 levels hierarchy for 4 roles!
Empirical study

- Extended study involving
  - New ‘work design behavior & choice’ measures
  - Expanded sample
    - Safety Institute of Australia Members (N = 160)
    - Organisational psychologists (N=40)
    - “MOOC” participants (N = 200)
    - Post-graduate students, management/org development (N = 80)
    - Working undergrad. students (N = 220)

Parker, Andrei, van den Broeck under review
It is already decided that Mary's job includes the following 4 tasks, which each take one hour per day.

1. Making photocopies of Court_A documents
2. Filing Court_A documents in the correct folders
3. Making photocopies of Court_B documents
4. Filing Court_B documents in correct folders

For this to be a full-time job, it needs 4 more one-hour tasks. Which FOUR of the following tasks would you allocate to Mary?

Please assume that Mary can readily carry out all of the tasks.

Also note that any tasks not allocated to Mary will be assigned to other members of the team (so no tasks will be neglected).
Job simplification

Number of simplified tasks vs. Design of simplified jobs

- Working u/grad students
- Post grad students (mgt, org. dev)
- "Psych. At Work" participants (post course)
- SIA Members
- Org Psychs
Simulation B

Four scenarios all designed to suggest “work” problems
- Warehouse worker
- Overloaded team of consultants
- Stressed managers in company, high turnover
- Hotel cleaners in luxury hotel with financial problems

Karen works in the warehouse for an on-line company. Her job is to fill the on-line orders. After clocking in, Karen logs into the hand-held device she uses. She is informed of an item she is to gather from the warehouse, as well as how long this is expected to take. Karen then moves quickly, sometimes running, to get the item and take it to despatch. She receives feedback as to whether she meets the time allocated or not. Karen repeats this process about fifteen times per day. About 50% of the time, Karen’s response is slower than the time that has been allocated for the task.

Rate the effectiveness of each of the following in terms of how to respond to the situation:
Blame the person strategies

Discretely observe Karen’s behaviour to see how fast she is moving

Inform Karen that her pay will be reduced if she doesn’t improve her times

Send Karen on a training program

Advise Karen to improve her physical fitness

Ask Karen why her times are not being met

Review whether the times allocated for gathering items are reasonable

Work design strategies

Design more motivating work so that tasks don't need to be timed

Send Karen on a training program

Redesign the jobs so that Karen and her colleagues have more meaningful work

Other strategies

Advise Karen to improve her physical fitness

Ask Karen why her times are not being met

Review whether the times allocated for gathering items are reasonable
EXAMPLE 42% of u/grads thought it would be moderately/very effective to “send Karen on a training program” (vs. 16% org. psychs)
Predictors of Work Design Approach/Strategies

General Work Experience
- Managerial role
- Specific role experience

Work Design “willingness”
- Openness to change values
  - Conservation values

Work Design “capacity”
- Theoretical knowledge
- Professional expertise
- Own Job Enrichment (‘tacit’)

(A) Job Simplification of Clerical Job
(B) Blame the Person Strategies
(B) Work Design Strategies
Predictors of Work Design Approach/Strategies

**General Work Experience**
- Overall work experience
- Management experience

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(A) Job Simplification of Clerical Job

(B) Blame the Person Strategies

(B) Work Design Strategies

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Summary

• Enriched work designs tend to beget enriched work designs
  – Do people unconsciously replicate their own work designs?
  – Is this one powerful path by which poor designs are perpetuated?

• Personal values matter

• Expertise matters - organisational psychologists tend to design the highest quality jobs in these simulations (interestingly, HR expertise is negative)
Next steps

Extensions (e.g., power, age, better sim’s, etc)

Actual work design approaches in organisations (case studies of decision-making)

How can we influence job designers to make better choices?
  • What types of education, training & development affect job design choices? How sustainable?

Understanding the role of higher-level forces / policy
Why does poor work design continue?

Figure 1. Framework of Work Design Influences

Contextual Influences

Higher-Level External Influences (e.g., global, national, occupational)

Organizational Influences (e.g., HR strategies, structure)

Local Context (Work Group) Influences (e.g., team interdependence)

Individual Influences (age, personality, etc)

Managers’ Motivation, KSAs & Opportunity

Formal Decision-Making Process

Dividing Labor

Work Design

Integrating effort

Informal, Emergent & Social Processes

Employees’ Motivation, KSAs & Opportunity

See review by Parker, Van den Broeck, Holman, in press, Academy of Management Annals
Future Directions

Beyond expanding and refining existing approaches... see Parker et al., in press; Parker, 2014.

(1) Antecedents of work design
   - Enhance impact of work design on practice?

(2) Designing work for ‘growth’/adult development

(3) Proactively designing jobs to improve future work

The Bad News

Fluid intelligence eg memory, problem-solving ability, declines with age.
The good news… brain plasticity

a. standard cage

b. enriched cage

c. appearance of nerve cells, mouse cerebrum

d. appearance of nerve cells, mouse cerebrum
Effect of good work design?
The role of work

Twin 1
No alzheimers
Complex, challenging job

Twin 2
Alzheimers
Simple, routine job
Work design promotes learning

- Job Autonomy
- Job Complexity
- Task Feedback
- etc

Active mastery/learning

- Controlling variances/cause-effects
- Complete action regulation sequence
- Exposure to broad perspectives

Learning

- Mental model development
- Fault prevention
- Integrated understanding

Karasek (1979)/Taris et al., 2003
Wall & Jackson, 1995
Leach et al., 2003
Frese & Zapf, 1994
Parker & Axtell, 2001
Work design for **Cognitive Development**

**Unanswered Questions**
- Can cognitive functioning be enhanced and decline prevented? (Rigorous longitudinal studies needed)
- Which work characteristics (or combinations) matter most?
- What are the mechanisms?

**Cognitive Development**
Changes in the structure and organization of knowledge

- Karp et al., 2004
- Andel et al., 2005
• Can work design change your ‘locus of control’?
• Using HILDA 2003, 2004, and 2007 (when LOC assessed); N = 3045

(PS Many controls, including auto-regressive effects, and findings same using latent growth curve or latent difference score)

More enriched jobs change your “personality”

Summary

• Work design might be a relatively untapped source of growth and development across the lifespan; even preventing cognitive decline

• Instead of focusing on developing people for work (via education), focus on work for development

• Need to go beyond analysing secondary data sets…
“Working Across the Life Span”
(WALS) 20 year study
Future Directions

Beyond expanding and refining existing approaches… see Parker et al., in press; Parker, 2014.

(1) Antecedents of work design
   - Enhance impact of work design on practice?

(2) Designing work for ‘growth’/ adult development
   – Cognitive development
   – Identity/ personality development
   – Moral development

(3) Proactively designing jobs to improve future work

e.g., Technology & health

Possible illness?
- Genomics
- Wearable devices
- Big data

Book appointment Dr
- WebMD
- Online communities

See the Dr
- Nurse + diagnostic tools/apps
- Telehealth

Treatment
- Robotic medical dispensers
- Nanobots
- Crowdsourcing
- 3d printing of body parts
Disaggregation of Professional Work

- Computers & machines
- On-line communities & crowdsourcing
- Para-professionals (e.g., nurses)
- Expert teams
- Professional (different tasks)

Example

Work Design Decisions

How do we choose who does which tasks?

And how do we design work so that computers/machines support & empower human workers?
“Glass cage” of Automation

Example: Aviation

Overuse of automation: “leads to a degradation of the pilot’s ability to quickly recover the aircraft from an undesired state”
Many other examples:

“robotization of finance”
Potential / Ongoing Projects
In the future, we must actively design meaningful, “smart” jobs in the future in which technology empowers rather than enslaves.

The best way to predict the future is to create it.
1) What is work design & work redesign?

(2) What do we know about work design?

(3) What don’t we know? (Future directions)

“We’re forgetting how to fly”
PS brochures available for anyone interested!

Thrive@Work in WA Initiative
To conclude…

“Is there no inspiration in labor? Must the man who works go on forever in a deadly routine, fall into the habit of mechanical nothingness, and reap the reward of only so much drudgery and so much pay?

I think not. The times demand an industrial prophet who will lift industry off from its rusted, medieval hinges and put pure human interest, and simple, free-spirited life into modern workmanship”

Thanks for listening!

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