

BRIEF REPORTS

**REIFYING CAPABILITY THEORY IN DISABILITY
AND REHABILITATION RESEARCH**

Manoj Sharma*

ABSTRACT

Use of theory helps in improving practice. Research in disability and rehabilitation can benefit by using a microeconomics theory called Capability Theory by Amartya Sen. The purpose of this brief report is to discern measurable constructs of the Capability Theory and reify these constructs for use in disability and rehabilitation research. Based on review of literature pertaining to Capability Theory the constructs and applications are identified. Five constructs of this theory have been identified and defined, namely, exchange entitlements, characteristics, capabilities, functionings and well-being. Implications for using each of these constructs in disability and rehabilitation research have been discussed. Capability theory argues for egalitarian access to capabilities for all. Educational and policy level interventions can be designed to modify the construct of capabilities, in persons with disabilities.

INTRODUCTION

A theory provides a set of interrelated concepts that present a systematic view of explaining or predicting events or situations with explication of relationships between the concepts that have been reified as measurable and testable (1, 2). Applied fields such as disability and rehabilitation do not have their own theories, but depend on theories from other behavioural and social sciences for these theories. Using a theory is vital for improving practice. Theory also helps in discerning measurable program outcomes, identifying timings for the interventions, choosing the right mix of strategies, improving intervention efficacy and effectiveness, and improving programme replication (3).

One such theory from the field of microeconomics is Amartya Sen's Capability Theory, for which he was awarded the Nobel Prize for Economic Science in 1998 (4, 5, 6). From the 1970s, Sen and colleagues have challenged the theories of utilitarianism and looked at ways of building alternative paradigms (7, 8). The paradigm of utilitarianism essentially postulates that a person controls factors of production, which in turn shape a person's income that in turn regulates the commodities consumed by the person and that personal utility shapes a person's well being. Sen in his hallmark paper in 1980 posed the question, "**Equality of What?**" that challenged the notion of egalitarianism, as perceived from the perspective of utilitarianism namely that of equalising income, goods or resources and defined equality of capability or real opportunities, as being valuable to human functioning (7). Capability Theory does not postulate the importance of goods themselves or the pleasure one derives from the use of goods, but emphasises people's opportunities to make use of the resources to achieve well-being.

Sen's model has received critical examination in economics, philosophy, ethics, women's development and other social sciences. However, it has not been used in disability and rehabilitation research. The purpose of this commentary is to discern measurable constructs of this theory and reify these constructs for use in disability and rehabilitation research. This will pave way for designing meaningful interventions for persons with disabilities.

Constructs of the Capability Theory

In order to make any theory meaningful, in the quantitative paradigm; it is imperative to define mutually exclusive constructs that can be measured as numbers. This has been a weakness of Sen's Capability Theory (9). Nonetheless, this paper will attempt to reify mutually exclusive constructs from this theory and apply these for measuring access to health services by persons with disabilities.

The first construct in Sen's Capability Theory is the construct of **exchange entitlements** which means, goods and services that are obtained from a person's resources or **endowments** rather than buying or selling. These endowments are influenced by **entitlement relations** and are a part of **entitlement mapping** that includes ways of obtaining income and services other than production and sale. In disability and rehabilitation

research, this construct can be reified by identifying persons who assist persons with disability with functional independence and by identifying what goods and services are useful for PWD that can be obtained without production and sale. Interventions can then be designed to foster access to these goods and services for persons with disability.

The second construct of the theory is called the **characteristics**. A commodity or good is not desired per se, but is valued for a set of attributes that it provides. For example, food is valued for the taste and nutritional qualities that it provides. Likewise, for a person with mobility-related disability a walking cane is valued for the assistance it provides in movement and its comfort in use. In disability and rehabilitation research this construct can be used in identifying the values persons with disability place on goods and services they utilise. Educational interventions can be designed to modify perceived values of persons with disability.

The third and most important construct of Sen's Capability Theory is **capabilities**. Capabilities refer to things a person can achieve or could have achieved in life. These are based on a set of real opportunities and not imagined ones. Capabilities can be seen at two levels: general or overall and a set or range of attributes that help a person for a particular accomplishment. The notion of capability is essentially one of freedom (10, 11). Persons with disability are often thwarted in their capabilities. Sen has not provided a comprehensive list of capabilities in his writings. Some of the capabilities that may be relevant for focusing in disability and rehabilitation research would be: physical health, life expectancy, mental health, being a part of society, having friends, freedom to pursue education, freedom to pursue career, freedom to be mobile, freedom to have job of one's liking, ability to marry, ability to raise a family, and ability to pursue spiritual goals. It would be useful research to examine the extent of role of the capabilities in predicting the well being of persons with disability. Interventions can also be designed to modify capabilities in the lives of persons with disability.

The fourth construct is called **functionings**. Functionings refer to a mixture of "doings and beings" or the various options or actions we perform in everyday life to achieve things in life. Functioning ranges from achieving basic things such as obtaining food and maintaining health, to more complex tasks such as achieving inner peace or performing leadership role in the community. Sen, in his theory promotes an equality of capabilities and not necessarily an equality of functionings that makes it interesting and different from many other theorists

(12). In disability and rehabilitation research, some of the functionings that can be measured are: performing activities of daily living, obtaining food, procuring clothing, living in own home, using transportation or driving, having enough friends, having enough family support, doing work, raising a family, pursuing a career, being active in the neighborhood, being active in town, being active in the state, being active nationally and internationally.

The final construct is **well-being**. Well-being refers to one's own welfare. Besides preference fulfillment (which is commonly the only interpretation in utilitarian paradigms), well being also includes a feeling of satisfaction and other features of a person's life, such as their attained state of health. In disability and rehabilitation research, this construct can be measured by measuring the extent of ability to get goods and services one wants, feeling of satisfaction, and self perceived health. Table 1 summarises the major constructs from Capability Theory and describes their application in disability and rehabilitation research.

Table 1: Major Concepts of Capability Theory and Implications for Research in Disability and Rehabilitation

Construct	Definition	Application for disability and rehabilitation
Exchange Entitlements	Goods and services that are obtained from a person's resources other than through production and sale.	<ul style="list-style-type: none">• Identifying persons who assist with functional independence.• Identifying goods and services useful for PWD that can be obtained, other than through production and sale.
Characteristics	A commodity or good is not desired per se, but is valued for a set of attributes that it provides.	<ul style="list-style-type: none">• Identifying the values for goods and services utilised by PWD.

Construct	Definition	Application for disability and rehabilitation
Capabilities	Things a person can achieve or could have achieved in life based on real opportunities.	Measuring the extent of: <ul style="list-style-type: none"> ● Physical health ● Life expectancy ● Mental health ● Being a part of the society ● Having friends ● Freedom to pursue education ● Freedom to pursue career ● Freedom to be mobile ● Freedom to have a job of one's liking ● Ability to marry ● Ability to raise a family ● Ability to pursue spiritual goals.
Functionings	A mixture of "doings and beings" or the various options or actions we perform in everyday life to achieve things in life.	Measuring the extent of <ul style="list-style-type: none"> ● Performing activities of daily living ● Obtaining food ● Procuring clothing ● Living in own home ● Using transportation or driving ● Having enough friends ● Having enough family support ● Doing work ● Raising family ● Pursuing a career ● Being active in neighborhood ● Being active in town ● Being active in the state ● Being active nationally and internationally.
Well-being	One's own welfare.	Measuring the extent of: <ul style="list-style-type: none"> ● Ability to get goods and services one wants ● Feeling of satisfaction ● Self perceived health

CONCLUSION

This paper has identified and described five distinct constructs from Capability Theory for possible application in disability and rehabilitation research. Descriptive studies can be undertaken to explain and predict the extent of well being in persons with disabilities based on this paradigm and using these constructs as predictors. Research can also identify values to be targeted by educational programmes to improve coping in persons with disabilities. Access to health care services by persons with disability can also be gauged based on this model and the constructs delineated. Interventions can be designed to modify some of the constructs to improve the well-being and rehabilitation of persons with disability.

The hallmark of the capability theory is its focus on the capabilities or real opportunities that people have in their lives, to achieve things they can and want to achieve. Sen argues for egalitarian access to capabilities for all. Persons with disabilities are at a disadvantage as the capabilities in their lives are often stunted due to the physical, mental and social limitations imposed by their shortcomings. However, the construct of capabilities is amenable to modification through factors that pertain to personal, institutional and societal levels, that makes it appealing for applied fields such as the field of disability and rehabilitation. Meaningful interventions can be designed, that modify this construct and improve the lives of persons with disability. However, some of the policy interventions that would need to be in place for complete modification of capabilities will be a daunting task. It will require intersectoral collaboration between government, private sector, political organisations, legal organisations, education and health institutions, and social agencies.

*Associate Professor, Health Promotion & Education
526 Teachers College, University of Cincinnati
P.O. Box 210002, Cincinnati, OH 45221-0002
(513) 556-3878 (Phone)
(513) 556-3898 (Fax)
E-mail: manoj.sharma@uc.edu

REFERENCES

1. Kerlinger F N. *Foundations of behavioural research* (3rd ed.) New York: Holt, Rinehart and Winston, 1986.
2. Van Ryn M, Heaney C A. *What is the use of theory?* Health Education Quarterly 1992; 19(3): 315-330.
3. Glanz K, Rimer BK, & Lewis, FM: *Health behavior and health education. Theory, research, and practice.* (3rd ed.). San Francisco, CA: Jossey-Bass, 2002.
4. Sen A K. *Commodities and capabilities.* New Delhi: Oxford University Press, 1987.
5. Sen A K. *Freedom of choice: Concepts and content.* European Economic Review 1988; 32, 269-294.
6. Sen A K. *Well being and capability.* In Nussbaum M & Sen A K: The Quality of Life. Oxford: Oxford University Press, 1993.
7. Sen A K. *Equality of What?* In McMurrin S: Tanner lectures on human values. Cambridge: Cambridge University Press, 1980.
8. Sen A K. *Resources, values and development.* Oxford: Blackwell, 1984.
9. Gasper D. *Sen's capability approach and Nussbaum's capabilities ethic.* Journal of International Development 1997; 9(2): 281-302.
10. Dreze J, Sen A. *India: Economic development and social opportunity.* Oxford: Oxford University Press, 1995.
11. Saito M. *Amartya Sen's Capability approach to education: A critical exploration.* Journal of Philosophy of Education 2003; 37: 17-33.
12. Sen A K. *Human development and financial conservatism.* World Development 1998; 26, 733-742.