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Analysis of Newspaper Coverage of Bionics Through a Disability Studies Lens

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Introduction

- ❖ The field of bionics is based on the union of living organisms and machines [1].
- ❖ Bionics are proposed as body add-ons or replacement for many body parts (ears, eyes, retinal prosthetics; knees; neural prostheses; joints, muscles, kidney, liver, cartilage lungs, discs, pancreas, dental pulp, skin, hippocampus, legs, hands) and function such as speech.
- ❖ Bionic technology can be aimed toward restorative purposes and/or enhancement of human body-abilities beyond the normal [2].
- ❖ Media are seen to enable social participation [3] and to help set the discussion agenda for society and are seen to create the boundaries within which debates takes place [4-6].

Aim

- ❖ to analyse how bionic technologies are portrayed in newspapers and the usefulness or lack thereof of that portrayal for disabled people.

Methods

- ❖ *Analytical lens: Disability Studies framework*
- ❖ *Data source: New York Times, the Calgary Herald, the Globe and Mail and the Canadian newsstand a database of n=300 Canadian newspapers*
- ❖ *Inclusion criteria: the keyword “bionics” in combination with keywords visible in Tables 1-5.*
- ❖ *Generation of qualitative and quantitative data using Atlas-ti software*

References:

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Table 1 Mentioning of social groups in the newspaper coverage of bionics

Codes	Canadian Newsstand(n=300 newspapers) 4826=100%	Calgary Herald 270=100%	The Globe and Mail 392=100%	The New York Times 492=100%
Aboriginal People/ Indigenous People/ First nations	7/3/0	2/0/0	2/0/0	0/3/0
Amputee	118	12	12	13
Business	1296	49	89	138
Caregiver	4	0	0	9
Corporate	129	5	21	129
Cyborg	55	5	2	10
Family/ies	1062//175	61	89	1130
Government	425	32	50	38
Immigrants	22	2	5	6
Impair	71	3	0	71
Industry	534	34	56	87
Inuit	17			
Military	255	12	19	27
Nurses	33	3	8	3
Parents	125	28	36	71
Patient	323	27	33	60
People with Disabilities/disabled people	8/27	0/1	0/0	1/5
Physicians	46	4	8	19
Society	391	31	27	56
Soldier	171	10	12	24
The poor	38	3	4	12
Therapist	75	4	7	9
Veteran	348	23	32	35
Women	888	115	195	221

Table 4: TV superhero's

Codes	Canadian Newsstand(n=300 newspapers) 4826=100%	Calgary Herald 270=100%	The Globe and Mail 392=100%	The New York Times 492=100%
Bionic man	373	22	25	39
Bionic woman	1166	70	142	98
Six million dollar man	357	19	22	19

Table 2 Medical Language evident in the newspaper coverage of bionics

Codes	Canadian Newsstand(n=300 newspapers) 4826=100%	Calgary Herald 270=100%	The Globe and Mail 392=100%	The New York Times 492=100%
Amputee	118	12	12	13
Caregiver	4	0	0	9
Disease	321	24	21	41
Health	510	31	34	57
Impair*	71	3	0	71
Nurses	33	3	8	3
Patient	323	27	33	60
People with Disabilities/disabled people	8/27	0/1	0/0	1/5
Physicians	46	4	8	19
Therapist	75	4	7	9
Treatment	206	23	18	36

Table 3: Frequency of Use of Social Issue Related Terms n=articles=100%

Codes	Canadian Newsstand(n=300 newspapers) 4826=100%	Calgary Herald 270=100%	The Globe and Mail 392=100%	The New York Times 492=100%
Access	165	13	14	21
Afford*	32	4	13	21
Equity/equality	30/22	1/0	5/6	5/2
Income/cost	77/715	3/33	16/53	16/83
Discrimination	11	1	2	2
Stigma	7	0	0	2
Quality of life	54	6	4	3
Education	175	12	18	27
Employment	38	1	3	7
Problem	504	50	77	133

Table 5 Bionics and related products mentioned in the newspapers

Codes	Canadian Newsstand(n=300 newspapers) 4826/100%	Calgary Herald 270=100%	The Globe and Mail 392=100%	The New York Times 492=100%
Bionic organ	1	0	0	0
Arm	162	32	50	96
Brain	24	29	39	71
Brain computer	6	0	0	1
Cochlear implant	71	1	4	8
Ear	104	18	24	58
Exoskeleton	21	3	1	7
Eye	84	56	70	136
Foot	3	38	50	114
Hand	62	58	88	157
Heart	726	39	59	104
Leg	82	42	36	79
Liver	45	2	8	8
Wheelchair	101	5	9	16

Key Findings

- ❖ Socially disadvantaged groups such as people with disabilities are barely mentioned (Table 1).
- ❖ Overly medical flavor of the bionic discourse (Table 2).
- ❖ Lack of social issues mentioned (Table 3)
- ❖ Hierarchy of devices evident with negative coverage of wheelchairs in relation to bionic legs (qualitative data not shown)
- ❖ The ability of bionics to ability enhance the wearer is not really thematized beyond the over-visibility of superhero TV shows (Table 4).