

Principal Researcher	Akira Yasukouchi			Number of Reserchers	6	
Research Institution • Department • Title	Professor, Design, Kyushu Institute of Design			Location of Institution	Fukuoka City	
Title of Project	Physiological polymorphism and its adaptability to lighting and thermal environments.					
Abstract of Research Project	<p>It has not been known how large within- and between- individual variations in physiological responses are to the physical and cultural environments found in a highly technological society. How physiological diversity affects human adaptability to a modern environment has become an important issue. There have been no systematic studies which attempt to examine whether the physiological polymorphism formed by the high-tech modern society is appropriate from the viewpoint of the intrinsic physical resources of human beings. The aim of our study is to investigate the physiological diversity, or the characteristics of the within- and between- individual variation of physiological traits. We also examine how physiological adjustment occurs throughout the entire body, and reveal the adaptability of physiological diversity to the modern society, with special emphasis on lighting and thermal factors. First, circadian and seasonal differences as within-individual variations are examined with regards to physiological responses to natural and artificial lighting and to thermal environments. Next, between-individual and -population variations are examined as to; for example, differences in the climatic conditions found in people' s birthplaces and in their level of physical activity and frequency use of air conditioners.</p>					
References	<p>Ishibashi,K. and Yasukouchi,A.: Analysis of heart rate variability during mental task with reference to ambient temperature. Appl.Human Sci.18(6):219-223, 1999.</p> <p>Yasukouchi,A., Yasukouchi,Y., and Ishibashi,K.: Effects of color temperature of fluorescent lamps on body temperature regulation in a moderately cold environment. J.Physiol.Anthropol., 19(3):125-134,2000.</p>					
Term of Project	Fiscal years 2003-2007 . (5years)					
Budget Allocation (in thousand of yen)	FY2003	FY2004	FY2005	FY2006	FY2007	TOTAL
	29,600	15,200	13,500	12,700	11,300	82,300
Homepage Address	None					