

## SEASONALITY OF DRESSING BEHAVIOUR IN YOUNG WOMEN

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## INTRODUCTION

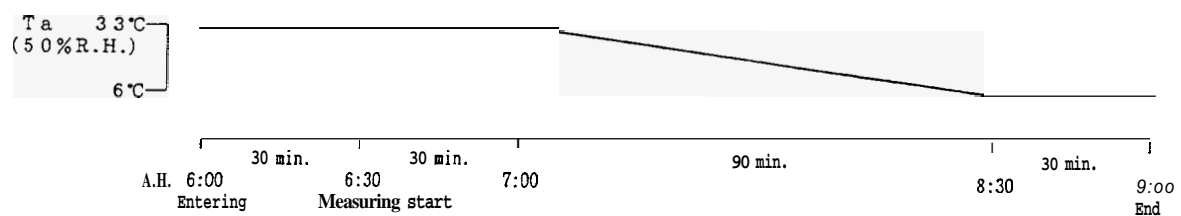
It is known that there are seasonal changes in thermal sensation to cold air, amounts of shivering and vasoconstriction tonus of finger in cold (1). According to many field surveys in Japan, people wear more thickly in everyday life in spring than in autumn under equal air temperature (2). However, our recent study found that there did not exist any changes in clothing weight worn between spring and autumn (3), suggesting a loss of seasonality in dressing behaviour between both season, under the influence of rapid modern civilization. To test our speculation, the following laboratory and field observations were done throughout a year.

## METHODS

Seven female young adults volunteered as subjects. Their mean (SD) age, height and weight were 22.1 (2.1) years, 157.7 (3.8) cm and 55.7 (7.3) kg. The experiments consisting of laboratory and field ones were carried out in July, October, January and April throughout the year.

**Laboratory**; Experiments were carried out in a climatic chamber at Nara Women's University. The experimental schedules were shown in Table 1. When an ambient temperature ( $T_a$ ) was lowered from 33°C to 6°C in 90 minutes, the half-naked subjects were instructed to wear freely. The experimental garments were 16 parts and 3397g in total. Rectal ( $T_{re}$ ) and skin temperatures, thermal sensation and dressing behaviour were continuously measured. The dressing behaviour was expressed by the cumulative increase of clothing weight.

Table 1 Experimental schedule



**Field**; The subjects were instructed to survey every day for a month in four seasons what they wore and how much the garments worn each day weighed. Air temperature and relative humidity were measured in Nara Women's University every day during the field study. The research was carried out from 1991 to 1992.

Table 2 Average clothing weight and S.D. in four seasons

Subjects	Summer ( $T_a$ 29.2 $\pm$ 2.6°C)		Autumn ( $T_a$ 17.8 $\pm$ 2.0°C)		Winter ( $T_a$ 7.2 $\pm$ 2.3°C)		Spring ( $T_a$ 17.3 $\pm$ 3.7°C)	
	Means	S.D.	Means	S.D.	Means	S.D.	Means	S.D.
1	491.8	18.4	1060.0	252.9	2160.5	95.7	956.2	87.6
2	700.0	99.1	962.0	131.6	1987.9	98.6	1040.0	132.5
3	577.7	137.5	1043.5	396.4	2363.2	284.8	1433.7	288.4
4	673.3	102.4	1985.0	569.4	2795.7	338.1	1417.3	611.5
5	623.5	126.7	1191.7	192.5	2370.7	319.7	1173.2	239.4
6	508.0	86.3	749.0	215.2	1803.7	84.2	1002.3	246.0
7	493.2	92.4	1105.5	203.3	1898.7	218.4	949.3	185.2
<b>Means</b>	<b>564.0</b>		<b>1155.8</b>		<b>2204.1</b>		<b>1138.9</b>	
<b>S.D.</b>	<b>80.6</b>		<b>361.7</b>		<b>317.3</b>		<b>194.0</b>	
<b>T-test</b>	N.S.							

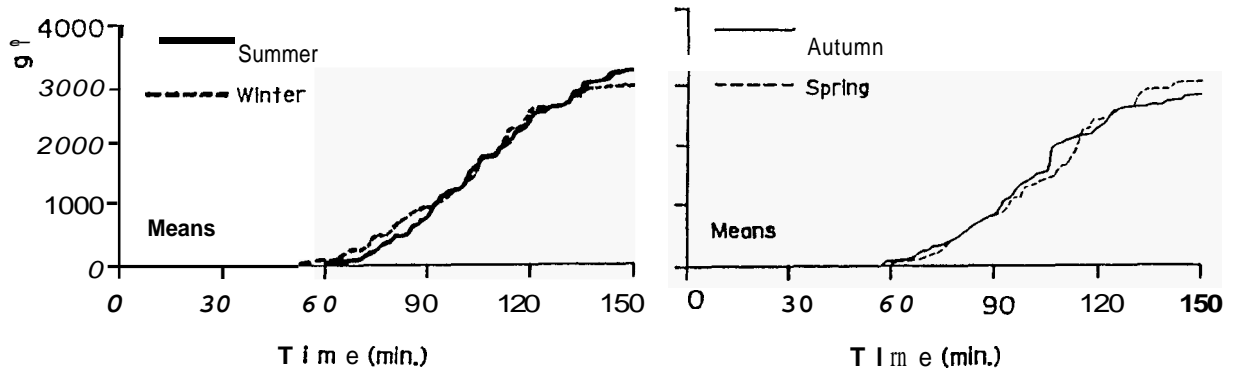
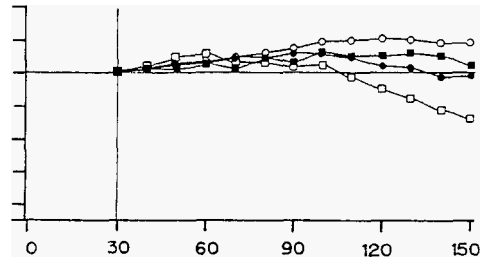


Fig. 1 A comparison of cumulative increase of clothing weight worn between summer and winter (left), spring and autumn (right).

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thermal sensation also showed no seasonality. Thus, it was shown that the thennophysiological parameters didn't have any seasonal changes in the laboratory experiment under  $T_a$  fall from 33°C to 6°C.

Field ; Table 2 showed the average clothmg

