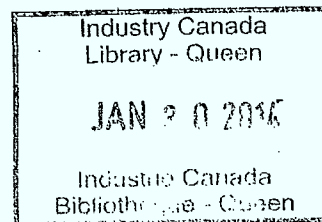


Alkali, Debrah

Survey on consumer comprehension
of care labelling symbols : April-
June 1977

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c.2



SURVEY
ON
CONSUMER COMPREHENSION
OF
CARE LABELLING SYMBOLS
April - June
1977

TS1449
A44
c.2

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DATE July 14, 1977

Attached for your information is a copy of my report on the results of the survey on consumer comprehension of care labelling symbols, undertaken during April-June of this year. I am pleased with the manner in which the work was done and the interesting results that have emerged.

For those of you who do not wish to struggle through all the charts, etc. I have attached a short summary outlining some of the principal trends and findings.

We hope to begin the development of a new information format based on these results, very shortly.

Debrah Alkali

Debrah Alkali

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Summary

In this study 2024 respondents, comprising a representative national sample, were questioned about their comprehension of the care labelling symbols and the various elements of these symbols. This was done in order to ascertain what people found easy and difficult to understand, why they felt this way, which groups among the respondents exhibited certain patterns and whether there was any regional trend.

The results were surprising in some instances, while in other cases they served to confirm the assumptions with which we undertook the study.

In comprehension of the basic symbol shapes, respondents found the wash and iron symbols easiest and had considerable difficulty with the bleach and dry symbols; the dry clean symbol proved to be the least comprehensible.

As suspected, the respondents did not relate the red, yellow and green colours to the traffic light symbols that were supposed to spring immediately to mind: there was considerable recognition that the red symbol meant "stop", but this was probably due more to the big "X" superimposed on the symbol than to the fact that it was red in colour.

Symbols having variations - wash, dry and iron - were tested separately to see how well respondents could interpret each variation. The wash and iron variations did not pose much of a problem, but there was considerable difficulty with the many variations on the dry symbol, especially those that do not involve machine drying (i.e. dry flat, drip dry, hang to dry).

Respondent comments on what they found confusing about the symbols frequently involved such answers as "don't understand the symbols" and "symbols do not convey their meaning". There was also somewhat of a regional trend, with more respondents in the Atlantic and Quebec regions saying that they had never seen the symbols than in Ontario, the Prairies and British Columbia. In general, the level of comprehension was higher in two western regions than in the rest of Canada.

On the whole, younger respondents did better than older respondents but the principal division seems to occur at the 55-and-over age group, with respondents in the 15-24, 25-34 and 35-54 being approximately equal in many cases. As expected, women showed more knowledge of the care symbols than did men, but the differences were less pronounced than one might have anticipated, especially among younger people.

The education factor emerged as an indicator throughout, with comprehension of the symbols tending to increase in proportion to the amount of schooling undertaken by the respondent. Furthermore, a three-way relationship emerged among the age, education and income variables, with the principal division occurring at the \$10,000 mark: those below this income level had lower scores than those above, and this would appear to take into account both older people on fixed incomes and less educated people with lower earnings. There might even be regional implications here, if one were inclined to speculate.

These results should be very helpful in providing us with guidelines as to how to proceed in redeveloping our informational materials and strategies for communicating the care labelling message to consumers.

The symbols for washing and ironing were comprehended by most respondents and the symbol for dry cleaning by the fewest. In general, women showed a higher degree of comprehension than did man.

TABLE 1
Comprehension of Symbol Shapes and Total and by Respondent Sex

	<u>All</u>	<u>Men</u>	<u>Women</u>
Wash	68%	57%	79%
Blch.	41	29	52
Dry	37	24	51
Iron	75	65	84
Dr. Cl.	<u>21</u>	<u>13</u>	<u>30</u>
TOTAL (N)	2024	1014	1010

Younger respondents showed a greater degree of symbol comprehension than did older respondents. This could be due to a number of factors such as education, amount of clothing purchased, resistance to innovation, media influence, etc.

TABLE 2
Comprehension of Symbol Shapes by Respondent Age

	<u>15-24</u>	<u>25-34</u>	<u>35-54</u>	<u>55+</u>
Wash	77%	79%	70%	49%
Blch.	50	52	42	23
Dry	51	42	36	23
Iron	88	83	74	57
Dr. Cl.	<u>25</u>	<u>24</u>	<u>22</u>	<u>16</u>
TOTAL (N)	446	431	597	545

When female respondents are singled out, the same pattern prevails, although the percentages are higher in all cases.

There was a general tendency for respondents in the western provinces to evince a greater degree of symbol comprehension than those in other regions.

CONSUMER COMPREHENSION OF CARE LABELLING SYMBOLSI Purpose

This study was undertaken in 1977 by the Consumer Services Branch, Consumer and Corporate Affairs Canada. The purpose of the study was to discover how well consumers understand the care labelling symbols, which they find difficult to interpret and their reasons for not understanding the symbols.

II Methodology

The methodology chosen was that of personal interviews, using a representative, national sample. Since there were only seven to twelve questions involved (depending on the number of open-end questions used) it was decided that buying into a shared-cost market survey would be the most efficient and economical means of achieving this. To this end, the Omnibus survey, operated on a bi-monthly basis by Contemporary Research Centre, was contracted for the study.

The questionnaire was designed by Contemporary Research Centre in consultation with the manager of the clothing and textile information project in Consumer Services and an officer from the Textiles Division, Consumer Fraud Protection Branch. In outline of the study, its objectives and the questionnaire were submitted to the Rule of Ten office at Statistics Canada, where it was approved in April.

The fieldwork took place during the month of May, with a total of 2024 respondents across Canada answering the questionnaire. The responses were coded and initial tabulations were done by Contemporary Research Centre. These tabulations were submitted, in computer print-out form, on June 27, 1977. Results were classified by the demographic variables of the respondent's sex, age, region, language, education and family income. Female respondents were studied separately in terms of age, region and education. In the original tabulations, the education variable was broken into four groups: primary school, some high

school, high school graduate and college/university. It was found that there was almost no difference between the figures for respondents who had completed high school and those who only had some high school, therefore these two categories were merged in order to provide more significant comparisons.

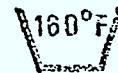
III Results of the Study

1. Comprehension of Basic Symbol Shapes

Respondents were shown card "A", with the symbols printed in black, in their various permutations.

SYMBOL CARD A

Line a.



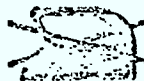
Line b.



Line c.



Line d.



Line e.



TABLE 3

Comprehension of Symbol Shapes by Respondent Region

	Atlantic		Quebec		Ontario		Prairies		B.C.	
	All	Women	All	Women	All	Women	All	Women	All	Women
Wash	65%	72%	63%	74%	69%	83%	71%	80%	74%	85%
Blch.	38	46	37	47	38	50	47	59	52	64
Dry	31	38	38	49	33	49	46	58	42	55
Iron	71	80	74	83	73	83	75	86	80	91
Dr. Cl.	22	28	20	28	17	26	31	41	25	34
TOTAL (N)	191	94	560	280	721	358	342	173	210	105

Language of respondent does not appear to be a factor in symbol shape comprehension: English-speaking and French-speaking respondents scored about the same. Education, however, does seem to be a significant indicator, showing a direct correlation between educational level and degree of comprehension.

TABLE 4

Comprehension of Symbol Shapes by Respondent Education

	Primary		Secondary		College/Univ.	
	All	Women	All	Women	All	Women
Wash	47%	62%	73%	82%	82%	92%
Blch.	23	33	43	53	54	70
Dry	27	38	40	52	43	63
Iron	60	74	77	86	86	91
Dr. Cl.	16	21	23	30	24	40
TOTAL (N)	510	254	1076	545	421	202

Another correlation appears to exist between family income and symbol shape comprehension. This can probably be explained by the figures for respondent age and education since (a) those with higher education levels frequently have higher incomes and (b) older people, living on pension and other fixed incomes are frequently found in the "under \$10,000" range.

TABLE 5

Comprehension of Symbol Shapes by Respondent Family Income

	<u>Under \$10,000</u>	<u>\$10,000-\$14,999</u>	<u>\$15,000 +</u>
Wash	54%	74%	77%
Blch.	30	41	47
Dry	30	39	39
Iron	65	79	81
Dr. Cl.	20	20	21
TOTAL (N)	476	341	733

After the respondent had attempted unaided to identify the symbols on Card "A", the question was asked again, this time with the answers provided in multiple choice format. Respondents were asked to identify which line of symbols represented each of the five actions.

TABLE 6

Aided Comprehension of Symbol Shapes by Total and by Respondent Sex

	<u>Total</u>	<u>Men</u>	<u>Women</u>
Wash	73%	67%	80%
Blch.	56	48	65
Dry	55	45	66
Iron	80	75	85
Dr. Cl.	43	32	54
TOTAL (N)	2024	1014	1010

Among male respondents, the aided section yielded considerably higher scores than did the unaided. Among women, the differences between aided and unaided comprehension of the washing and ironing symbols was marginal, but substantially higher for the other three symbols.

The percentage of "don't know" responses was reduced considerably in the aided section, since respondents were given a more precise definition of the symbols' meanings and those who were uncertain of the meanings could make a more educated guess.

TABLE 7
"Don't Know" Responses, Aided and Unaided by Respondent Sex

	<u>Men</u>		<u>Women</u>	
	<u>Unaided</u>	<u>Aided</u>	<u>Unaided</u>	<u>Aided</u>
Wash	40%	29%	19%	16%
Blch.	63	42	38	24
Dry	72	41	45	24
Iron	33	22	15	12
Dr. Cl.	82	46	63	28
TOTAL (N)	1014		1010	

However, although the respondents were more inclined to take a guess when aided, they guessed incorrectly in several cases. When presented with the washing and ironing symbols, almost all respondents either answered correctly or said that they did not know. The symbols for bleaching, drying and dry cleaning, on the other hand, caused some confusion.

In the case of dry cleaning, 431 of the respondents said they knew about the dry clean symbol, but only 91% of those identified it correctly on line "e" of the card. The symbol was identified as signifying bleaching by 9% of the total respondents - this includes 10% of total females. The age group 35-54 was most inclined to make this error: 11% of both the total and the female respondents. Ontario respondents registered this error in 13% of their answers (14% for Ontario women) and in Quebec this error was relatively infrequent with only 5% of the respondents (male and female) associating the dry clean symbol with bleaching. This is reflected in the English-French comparison where the percentages for this particular error were 11% and 4% respectively.

Another 6% of the total respondents thought that the circle (for dry cleaning) signified drying. In this case, more males made the incorrect identification: 8%, compared with 4% of the women in the sample. Furthermore, it was the younger age groups that tended to make this error: 9% of respondents aged 15-34 did so. Regionally, the highest incidence of this error occurred in the Atlantic provinces, at 8%.

Of the 754 respondents who claimed to recognize the drying symbol, only 93% identified it correctly on line "c" of the card. The square (for drying) was interpreted as meaning dry clean by 7% of the respondents (9% of the men and 6% of the women) and this was most prevalent among the younger age groups: 10% of the 15-34 group, including 7% of the females, made this error. Regionally, this error occurred most frequently in the Atlantic provinces, at 11%.

Of the 828 respondents who thought they recognized the bleach symbol, 94% identified it correctly on line "b" of the card. Of the total respondents, 6% thought that the triangle (for bleaching) signified dry cleaning. This error occurred most frequently in the Ontario Region - 8% of the total and 9% of female respondents - and among English-speakers with a 7% rate of this error compared to 3% among French-speaking respondents.

2. Comprehension of the "Do Not" (X) Symbol

Respondents were shown Card "B", depicting the dry cleaning symbol in its "do" and "do not" forms in order to test their comprehension of the "X" superimposed on the symbol. (Card "B" on next page).

SYMBOL CARD B

Drycleaning

a.



b.



Most respondents identified this card correctly: 70% in the case of "do not" and 69% for "do". Women were correct on both in 77% of cases while men scored 64% for "do not" and 62% for "do". Among both men and women it was the 55-and-over age group that had the most difficulty with this question, scoring between 20% and 25% lower than the other age groups.

Overall, there was not a great deal of difference among the regions, but when female respondents are singled out, a more definite regional trend emerges, dividing the Atlantic and Quebec regions from the other three.

TABLE 8

Comprehension of the "Do Not" Symbol among Female Respondents by Region

		<u>(N)</u>
Atlantic	69%	94
Quebec	68	280
Ontario	82	358
Prairies	81	173
B.C.	82	<u>105</u>
		1010

The respondent's educational level appears to be another significant factor in correct interpretation of the "do not" symbol.

TABLE 9

Comprehension of the "Do Not" Symbol by Respondent Education

	<u>All</u>		<u>Women</u>	
		<u>(N)</u>		<u>(N)</u>
Primary	52%	510	64%	254
Secondary	74	1076	79	545
College/Univ.	83	421	90	202

The above pattern finds a parallel in the figure for respondent family income. This again can also be explained by the age/income relationship, with retired people frequently falling into the lower income category.

TABLE 10

Comprehension of the "Do Not" Symbol by Respondent Family Income

		(N)
Under \$10,000	58%	476
\$10,000-\$14,999	78	341
\$15,000 and over	79	733

2. Comprehension of Colours

Respondents were shown Card "C" depicting the dry clean symbol in red, yellow and green and were asked to interpret the meaning of each colour.

SYMBOL CARD C

Drycleaning

Red →

a.



Yellow →

b.



Green →

c.



Overall, about 2/3 of the respondents understood the meaning of the colour red, about half understood the yellow and slightly more than half understood the green.

TABLE 11

Comprehension by Colours by Total Respondents and by Respondent Sex

	<u>All</u>	<u>Men</u>	<u>Women</u>
Red	66%	61%	71%
Yellow	49	46	53
Green	<u>56</u>	<u>54</u>	<u>59</u>
TOTAL (N)	2024	1014	1010

It is interesting to note that women scored higher in colour recognition than did men. Generally, it is assumed that women know (or should know) more about clothing care, and following from this, it is usually expected that women will perform better at recognizing symbols for washing, drying, etc. than will men. However this particular question did not deal with the shape of the symbol or the action denoted by it; rather, it dealt with the colours, which are based on those used in traffic lights. These colours and their meanings are presumed to be familiar and almost universally recognizable. Why then, did men score 5% to 10% lower than women on this question? Were they distracted by the fact that the colours were presented in the context of a care symbol? (i.e. would they have found it easier to relate colour to meaning if they had been shown three dots or three squares instead of three dry clean symbols?) Or could this result be due to some external factor such as the incidence of colour blindness (which does not, normally, affect women) among our male respondents?

Respondents aged 15 to 54 were fairly consistent in their comprehension of the colours, but a sharp drop occurs in the 55-and-over age group.

TABLE 12

Comprehension of Colours by Respondent Age

	<u>15-24</u>	<u>25-34</u>	<u>35-54</u>	<u>55 +</u>
Red	71%	72%	68%	55%
Yellow	52	54	52	42
Green	<u>60</u>	<u>61</u>	<u>60</u>	<u>47</u>
TOTAL (N)	446	431	597	545

The proportion of correct answers was considerably lower in Quebec than in the other regions.

TABLE 13

Comprehension of Colour by Respondent Region

	<u>Atlantic</u>	<u>Quebec</u>	<u>Ontario</u>	<u>Prairies</u>	<u>B.C.</u>
Red	65%	58%	71%	66%	72%
Yellow	57	40	54	50	52
Green	<u>60</u>	<u>47</u>	<u>61</u>	<u>57</u>	<u>61</u>
TOTAL (N)	191	560	721	342	210

This is reflected in the English-French comparison:

TABLE 14

Comprehension of Colours by Respondent Language

	<u>English</u>	<u>French</u>
Red	69%	56%
Yellow	53	40
Green	<u>60</u>	<u>46</u>
TOTAL (N)	1500	524

There is an apparent correlation between education and correct interpretation of the three colours:

TABLE 15.

Comprehension of colours by Respondent Education

	<u>Primary</u>	<u>Secondary</u>	<u>College/Univ.</u>
Red	54%	68%	76%
Yellow	39	52	57
Green	44	59	65
TOTAL (N)	510	1076	421


An examination of responses in terms of respondent family income shows that those with family incomes below \$10,000 scored lower than those with incomes of \$10,000 and over. This again reflects the figures for age and education.


2. Comprehension of Wash Symbol Variations


Respondents were shown Card "D" depicting the three usual variations on the basic symbol for washing: a) hand wash, warm/lukewarm water, b) machine wash, warm/lukewarm water and c) machine wash, hot water.

SYMBOL CARD D

Washing Symbols

Yellow → a. 

Yellow → b. 

Green → c. 

This symbol and its variations were understood by a majority of the respondents.

.../15.

TABLE 16

Comprehension of Wash Symbol Variations by Total Respondents and by Respondent Sex

	<u>All</u>	<u>Men</u>	<u>Women</u>
Variation (a)	72%	63%	80%
Variation (b)	69	60	77
Variation (c)	<u>69</u>	<u>61</u>	<u>78</u>
TOTAL (N)	2024	1014	1010

The age pattern observed in previous sections continues: respondents aged 15 to 54 show similar degrees of comprehension while those aged 55 and over score substantially lower.

TABLE 17

Comprehension of Wash Symbol Variations by Respondent Age-Total and Females

	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>
Variation (a)	78%	85%	79%	90%	76%	81%	55%	65%
Variation (b)	75	81	75	82	73	80	54	67
Variation (c)	<u>75</u>	<u>81</u>	<u>76</u>	<u>83</u>	<u>74</u>	<u>81</u>	<u>55</u>	<u>67</u>
TOTAL (N)	446	197	431	223	597	336	545	252

Among the regions, respondents in British Columbia gave the highest proportion of correct answers to this question.

TABLE 18

Comprehension of Wash Symbol Variation by Respondent Region

	<u>Atlantic</u>		<u>Quebec</u>		<u>Ontario</u>		<u>Prairies</u>		<u>B.C.</u>	
	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>
Variation (a)	67%	72%	68%	75%	75%	85%	70%	78%	77%	85%
Variation (b)	66	71	68	76	68	77	66	77	76	86
Variation (c)	65	69	69	78	68	77	69	78	77	87
TOTAL (N)	191	94	560	280	721	358	342	173	210	105

The variable of education continues to be a factor in the proportion of correct responses:

TABLE 19

Comprehension of Wash Symbol Variations by Respondent Education

	<u>Primary</u>		<u>Secondary</u>		<u>College/Univ.</u>	
	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>
Variation (a)	55%	66%	76%	83%	82%	89%
Variation (b)	52	63	72	80	80	88
Variation (c)	53	63	73	82	80	87
TOTAL (N)	510	254	1076	545	421	202

Figures for respondent family income continue to follow the pattern observed earlier in this study.

TABLE 20

Comprehension of Wash Symbol Variation by Respondent Family Income

	<u>Under \$10,000</u>	<u>\$10,000-\$14,999</u>	<u>\$15,000 +</u>
Variation (a)	63%	75%	79%
Variation (b)	58	75	76
Variation (c)	59	76	77
TOTAL (N)	476	341	733

Of the 1374 respondents who understood the basic symbol for washing, 88% interpreted variation "a" correctly, 84% variation "b" and 86% variation "c".

5. Comprehension of Dry Symbol Variations

Respondents were shown card "E" depicting the five usual variations of the symbol for drying and asked to give the meaning of each: (a) dry flat, (b) tumble dry, low/cool (c) tumble dry, medium high/hot, (d) hang to dry, soaking wet/drip dry and (e) hang to dry.

SYMBOL CARD E

Drying Symbols

yellow →

a.



yellow →

b.



Green →

c.



Green →

d.



Green →

e.



Respondents had considerable difficulty with this question, since many of them did not even understand the basic symbol.

TABLE 21

Comprehension of Dry Symbol Variations by Total Respondents and by Respondent Sex

	<u>All</u>	<u>Men</u>	<u>Women</u>
Variation (a)	18%	9%	27%
Variation (b)	31	23	40
Variation (c)	34	25	43
Variation (d)	17	11	24
Variation (e)	22	14	30
TOTAL (N)	2024	1014	1010

The two variations that were most understood were the two relating to machine tumble-drying, perhaps because the circle within the square bears some resemblance to an automatic dryer. The other three, more abstract variations were understood by considerably smaller numbers of respondents, both male and female.

The pattern for the age groups was inconsistent in this question: the pattern observed in most of the other questions, i.e. that of general similarity among the first three age groups and a considerably lower figure for the fourth (55-and-over) holds true for some of the variations but not in all cases.

TABLE 22

Comprehension of Dry Symbol Variations by Respondent Age

	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>
Variation (a)	21%	34%	17%	27%	21%	28%	14%	20%
Variation (b)	38	49	34	46	34	40	20	26
Variation (c)	41	51	37	49	37	43	24	33
Variation (d)	21	29	15	24	20	26	13	17
Variation (e)	25	36	18	29	26	32	19	24
TOTAL (N)	446	197	431	223	597	336	545	252

In all cases, women aged 15-24 registered the highest degree of comprehension of these variations. The difference between the younger and older groups was

greatest in the case of the two symbols denoting use of an automatic. Perhaps the use of such machines is more established and familiar among respondents and therefore such a symbol carries a readier association than to older people.

Regionally, respondents in the Prairies scored consistently high on while those in Ontario were consistently low.

TABLE 23

Comprehension of Dry Symbol Variations by Respondent Region

	Atlantic		Quebec		Ontario		Prairies	
	All	Women	All	Women	All	Women	All	Women
Variation (a)	15%	24%	19%	28%	13%	19%	28%	41%
Variation (b)	35	44	32	39	26	31	38	51
Variation (c)	37	43	36	45	29	37	39	52
Variation (d)	16	22	18	23	13	19	26	34
Variation (e)	23	32	23	29	18	26	30	41
TOTAL (N)	191	94	560	280	721	358	342	173

Respondent education appears to be a factor only in some cases.

TABLE 24

Comprehension of Dry Symbol Variations by Respondent Education

	Primary		Secondary		College/Univ	
	All	Women	All	Women	All	Women
Variation (a)	17%	24%	18%	27%	20%	31%
Variation (b)	24	31	33	42	36	45
Variation (c)	26	35	37	45	39	5
Variation (d)	16	21	17	23	20	31
Variation (e)	20	26	23	32	34	3
TOTAL (N)	510	254	1076	545	421	211

The education factor accounts for differences primarily with regard to machine drying: respondents with higher education were more likely to recognize Variations (a) and (b) than those with less education. With the other variations, the differences were not as great, ranging from 3% for Variation (a) (dry flat) among all respondents to 9% for Variations (a) and (b) (dry flat and drip dry) among female respondents only.

The family income figures for this question differ somewhat from the trend observed throughout most of this study: the distinct pattern that divides those with incomes under \$10,000 from those earning \$10,000 and over is not as evident here.

TABLE 25

Comprehension of Dry Symbol Variations by Respondent Family Income

	<u>Under \$10,000</u>	<u>\$10,000-\$14,999</u>	<u>\$15,000 +</u>
Variation (a)	15%	17%	19%
Variation (b)	28	34	32
Variation (c)	31	41	36
Variation (d)	16	19	17
Variation (e)	<u>21</u>	<u>24</u>	<u>22</u>
TOTAL (N)	475	341	733

It is interesting to note that the middle group (\$10,000 to \$14,999) has the highest proportion of correct answers in four out of five variations.

Of the 754 respondents who said they were aware of the symbol for drying, the record for interpreting the five variations, as compared to the total respondents was as follows.

TABLE 26

Comprehension of Dry Symbol Variations by Respondents Aware of Basic Symbol

	<u>All</u>	<u>Aware of Symbol</u>
Variation (a)	18%	37%
Variation (b)	31	58
Variation (c)	34	60
Variation (d)	17	33
Variation (e)	<u>22</u>	<u>42</u>
TOTAL (N)	2024	754

6. Comprehension of Iron Symbol Variations

Respondents were shown Card "F" depicting the two usual variations of the symbol for ironing: (a) iron high/hot and (b) iron low/cool, and asked to interpret them. More than $\frac{2}{3}$ of the respondents were able to do so. (See next Page).

TABLE 27

Comprehension of Iron Symbol Variations by Total Respondents and by Respondent Sex

	<u>All</u>	<u>Men</u>	<u>Women</u>
Variation (a)	81%	74%	88%
Variation (b)	<u>78</u>	<u>70</u>	<u>86</u>
TOTAL (N)	2024	1014	1010

The age group trend previously noted is evident in responses to this question. The differences is less pronounced when female respondents are singled out.

TABLE 28

Comprehension of Iron Symbol Variations by Respondent Age

	15-24		25-34		35-54		55 +	
	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>	<u>All</u>	<u>Women</u>
Variation (a)	85%	88%	85%	91%	83%	89%	72%	84%
Variation (b)	83	90	83	86	81	89	68	80
TOTAL (N)	446	197	431	223	597	336	545	252

SYMBOL CARD F

Ironing Symbols

Green →

a.



Yellow →

b.



There are no significant regional or language-related trends. Education, however, continues to exert an influence.

TABLE 29

Comprehension of Iron Symbol Variations by Respondent Education

	Primary		Secondary		College/Univ.	
	All	Women	All	Women	All	Women
Variation (a)	68%	79%	84%	92%	89%	93%
Variation (b)	66	79	82	90	84	88
TOTAL (N)	510	254	1076	545	421	202

Age and education figures are once again reflected in the breakdown by family income.

TABLE 30

Comprehension of Iron Symbol Variations by Respondent Family Income

	<u>Under \$10,000</u>	<u>\$10,000-\$14,999</u>	<u>\$15,000 +</u>
Variation (a)	75%	85%	86%
Variation (b)	73	82	82
TOTAL (N)	476	341	733

Of the 1508 respondents who said that they understood the basic symbol for ironing, 92% interpreted Variation (a) and 89% Variation (b) correctly.

7. Respondent Opinions

In order to find out what the respondents themselves considered to be the reasons for their difficulty in understanding the symbols, a series of open-end questions were used. Each time a respondent was unable to identify one of the basic symbols (card "A") he/she was asked by the interviewer what there was about the symbol that might cause confusion. Their answers were grouped into thirteen

general statements, not all of which apply in the case of each symbol.

- (a) Washing: The 650 respondents who were unable to identify the wash symbols were asked what there was about this set of symbols that might cause confusion, with the following results:

TABLE 31

Respondents Difficulties in Comprehending Wash Symbol

	<u>All</u>	<u>Men</u>	<u>Women</u>
1. Have never seen the symbols.	27%	25%	30%
2. Don't understand symbols	20	19	24
3. Symbols don't convey their meaning	12	12	12
4. Understand mean of "X" (do not) but not symbol	1	1	1
5. Don't know what "X" (do not) means	2	2	4
6. Should have written instructions	4	5	2
7. Don't do the laundry	9	13	1
8. Nothing, symbols are not confusing	3	3	5
9. Other	3	3	5
10. Don't Know/didn't state	<u>22</u>	<u>24</u>	<u>20</u>
TOTAL (N)	650	439	211

Of those respondents who could not interpret the wash symbol, 27% had never seen the symbols and another 20% did not understand the symbols; 12% felt that the symbols did not convey their meaning and 4% suggested that written instructions would be preferable to symbols. The 9% who said that they didn't do the laundry included 13% of the men who could not identify the symbol.

The regional breakdown of the respondents unable to identify the wash symbol shows that the reason cited by 34% in the Atlantic region and 33% in Quebec was "have never seen the symbols". In Ontario and British Columbia, 25% cited "don't understand the symbols".

A greater proportion of French-speaking than English-speaking respondents in this group - 34%, compared to 24% - said that they had never seen the symbols.

- (b) Bleaching: the 1201 respondents who were unable to to give the meaning of the bleach symbol cited their reasons as follows.

TABLE 32

Respondents Difficulties in Comprehending Bleach Symbol

	<u>All</u>	<u>Men</u>	<u>Women</u>
1. Have never seen the symbols	19%	19%	21%
2. Don't understand symbols	18	18	18
3. Symbols don't convey their meaning	11	10	13
4. Thought "CL" meant cleanser	5	4	7
5. Don't explain meaning of "CL"	11	11	11
6. Understand meaning of "X" (do not) but not symbol	2	1	3
7. Don't know what "X" (do not) means	2	2	2
8. Should have written instructions	4	3	4
9. Don't do the laundry	5	8	1
10. Nothing, symbols are not confusing	4	4	4
11. Other	1	1	2
12. Don't know/did't state	<u>23</u>	<u>24</u>	<u>21</u>
TOTAL (N)	1201	714	487

The meaning of "CL" (for cholorine) was a source of confusion to much of this group: failure to understand or misunderstanding of this aspect accounted for 16% of the answers to "what was there about the symbols on line "b" that might casue confusion?". Respondents who had never seen the symbols accounted for 19% and those who did not understand the symbols comprised another 18%.

In Quebec more than $\frac{1}{4}$ of respondents who could not identify the bleach symbol stated that they had never seen the symbols, but Quebec and the Atlantic had the lowest proportions of misinterpreting or failing to understand "CL" - possibly because respondents just said that they didn't understand the symbols altogether.

- (c) Drying: When asked what they found confusing about the dry symbols, respondents gave the following replies.

TABLE 33

Respondent Difficulties in Comprehending Dry Symbol

	<u>All</u>	<u>Men</u>	<u>Women</u>
1. Have never seen the symbols	20%	19%	23%
2. Don't understand symbols	26	25	27
3. Symbols don't convey their meaning	18	18	18
4. Should have written instructions	3	3	3
5. Don't do the laundry	4	7	*
6. Nothing, symbols are not confusing	3	2	4
7. Other	2	1	3
8. Don't know/didn't state	<u>26</u>	<u>28</u>	<u>23</u>
TOTAL(N)	1270	770	500

*Less than .5%

Of the 1270 who could not identify the symbol for drying, more than 1/4 said that they did not understand the symbols and 18% felt that the symbols did not convey their meaning; young respondents in the 15-24 age group were most inclined to cite the latter as a source of confusion.

Among the regions, 31% of the Ontario respondents who could not identify the dry symbol said that they did not understand the symbols, while 29% of respondents in Quebec said that they had never seen the symbols. This is reflected in the English-French comparison:

TABLE 34

Respondent Difficulties in Comprehending Dry Symbol

	<u>English</u>	<u>French</u>
1. Have never seen the symbols	17%	30%
2. Don't understand symbols	28	18
3. Symbols don't convey their meaning	20	12
4. Should have written instructions	4	2

(cont'd on next page)

	<u>English</u>	<u>French</u>
5. Don't do the laundry	5	2
6. Nothing, symbols are not confusing	3	2
7. Other	2	2
8. Don't know/didn't state	<u>24</u>	<u>32</u>
TOTAL (N)	943	327

(d) Ironing: A relatively small number of respondents (516) were unable to interpret the iron symbol. When asked what they found confusing, they replied as follows.

TABLE 35

Respondent Difficulties in Comprehending Iron Symbol

	<u>All</u>	<u>Men</u>	<u>Women</u>
1. Have never seen the symbols	18%	15%	24%
2. Don't understand symbols	12	11	16
3. Symbols don't convey their meaning	10	10	10
4. Understand the meaning of "X" (do not) but not symbol	1	1	1
5. Don't know what "X" (do not) means	1	2	1
6. Just recognized the iron	2	1	3
7. Should have written instructions	3	3	4
8. Don't do the laundry	7	10	-
9. Nothing, symbols are not confusing	8	6	10
10. Other	2	2	1
11. Don't know/didn't state	<u>41</u>	<u>44</u>	<u>34</u>
TOTAL (N)	516	351	165

These figures differ somewhat from those for the preceding symbols in several respects: there are considerably higher proportions of "don't know/didn't state" answers and, more interestingly, a higher proportion of respondents who felt that there was nothing confusing about the symbol - this despite the fact that they had not been able to identify it.

In Quebec, 26% of those unable to identify the iron symbol said that they had never seen the symbols; the same was reported by 26% of the French-language respondents in the group. Respondents in Ontario (11%) and B.C. (15%) were the most inclined to say that the symbols were not confusing. Another interesting category where a substantial proportion gave this answer was respondents who had attended college or university, 15% of whom replied thus.

- (e) Dry Cleaning: The dry clean symbol caused more confusion and misunderstanding than any of the others: 1593 of our respondents were unable to interpret it correctly.

TABLE 36

Respondent Difficulties in Comprehending Dry Clean Symbol

	<u>All</u>	<u>Men</u>	<u>Women</u>
1. Have never seen the symbols	19%	17%	21%
2. Don't understand symbols	22	21	22
3. Symbols don't convey their meaning	23	22	25
4. Understand meaning of "X" (do not) but not symbol	3	2	3
5. Don't know about "X" (do not) means	2	2	1
6. Should have written instructions	4	4	4
7. Don't do the laundry	4	6	1
8. Nothing, symbols are not confusing	4	3	5
9. Other	1	1	1
10. Don't know/didn't state	<u>25</u>	<u>27</u>	<u>22</u>
TOTAL (N)	1593	885	708

A substantial proportion of respondents said that the symbols did not convey their meaning and another 22% said simply that they did not understand the symbols. Respondents aged 15-34 were more inclined to cite the former reason than were older respondents. In British Columbia each of the above reasons was cited by 31% of respondents - a total of 62% for the two. In the Atlantic and Quebec regions the most common answer was "have never seen the symbols".

IV. Conclusions

The results of this survey confirm some of our assumptions and negate others. The following are worthy of note and should be taken into consideration in the development of information materials and communications strategies.

1. Although abstract shapes (circle, triangle, square) are simple and basic, they require more explanation and communication effort than the shapes which approximate more closely the action denoted (stylized washtub and iron).
2. There is a greater need to emphasize the meanings of the three colours together: people do not automatically associate them with the traffic signals. The fact that more people recognized the meaning of the red symbol than the green and yellow ones is probably due to the fact that the red symbol also had the "X" (do not) superimposed.
3. The symbol for drying, with its many variations is likely to pose the greatest challenge. Not only is the basic square shape difficult to interpret, but the variations, particularly those not involving machine-drying, are even more obscure.
4. At the other extreme from the highly complex dry symbol is the overly simple dry clean symbol. The circle is meaningless to most people. (This also applies, to a lesser extent, in the case of the bleach symbol.)
5. Generally, such things as temperatures and "CL" are meaningless to most people. The modifications within the dry symbol are both difficult to see and difficult to understand. The fact that the symbols tend to be very small when printed on a label means that the symbols-within-symbols are obscured as well as obscure.

SYMBOL SECTION

ASK ALL RESPONDENTS

1. I am going to show you a card with some symbols on it. You probably have seen these symbols on the labels attached to clothing you buy. These symbols indicate instructions for taking care of the article of clothing.

As I show you this card (HAND RESPONDENT SYMBOL CARD A) please tell me what do the symbols on line 'a' mean? RECORD ANSWER UNDER Line 'a'. CIRCLE ONE ANSWER ONLY.

Now what do symbols on line 'b' mean? ASK ABOUT EACH LINE ONE AT A TIME TILL YOU HAVE ASKED ABOUT ALL FIVE OF THEM. DO NOT READ ANSWER CATEGORIES AT THIS POINT.

Line 'a'	Line 'b'	Line 'c'	Line 'd'	Line 'e'
1. Washing	1. Bleaching	1. Drying	1. Ironing	1. Dry Cleaning
X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____
V. Don't Know	V. Don't Know	V. Don't Know	V. Don't Know	V. Don't Know

2. Now I am going to read the answers. Please tell me which line the symbols are on that give instructions on: Dry cleaning? CIRCLE ONE ANSWER ONLY.

REPEAT THE QUESTION FOR EACH LISTED CATEGORY AND ASK ABOUT EACH ONE AT A TIME.

CIRCLE ONE ANSWER ONLY AGAINST EACH CATEGORY.

	Line 'a'	Line 'b'	Line 'c'	Line 'd'	Line 'e'	Don't Know
Dry cleaning	1	2	3	4	5	V
Ironing	1	2	3	4	5	V
Drying	1	2	3	4	5	V
Bleaching	1	2	3	4	5	V
Washing	1	2	3	4	5	V

TAKE BACK SYMBOL CARD A

HAND RESPONDENT SYMBOL CARD B

3. On this card are two symbols. What is the difference between them? What meaning does Symbol 'a' convey? CIRCLE BELOW _____ What meaning does Symbol 'b' convey? CIRCLE BELOW _____

Symbol 'a'

- 1 Stop/don't dry clean
 X Other (Specify): _____

 V Don't Know

Symbol 'b'

- 1 Go ahead/dry clean
 X Other (Specify): _____

 V Don't Know

TAKE BACK SYMBOL CARD B AND HAND RESPONDENT SYMBOL CARD C

4. There are three colours for this symbol. What do the colours signify to you? ASK FOR EACH COLOUR ONE AT A TIME AND CIRCLE BELOW.

(a) RED	(b) YELLOW	(c) GREEN
1. Stop/don't do	1. Be careful/caution/low temperature	1. Go ahead/high temperature
X. Other (Specify): _____	X. Other (Specify): _____	X. Other (Specify): _____
_____	_____	_____
V. Don't Know	V. Don't Know	V. Don't Know

TAKE BACK SYMBOL CARD C AND HAND RESPONDENT SYMBOL CARD D

5. On this card are three symbols for washing. Could you tell me what meaning does each symbol convey starting from symbol 'a'

ASK FOR EACH SYMBOL ONE AT A TIME AND CIRCLE UNDER APPROPRIATE SYMBOL.

Symbol 'a'	Symbol 'b'	Symbol 'c'
1. Handwash in warm/lukewarm water	1. Machine washable in warm/lukewarm water	1. Machine washable in hot water/at high temperature
X. Other (Specify): _____	X. Other (Specify): _____	X. Other (Specify): _____
_____	_____	_____
V. Don't Know	V. Don't Know	V. Don't Know

TAKE BACK SYMBOL CARD D

HAND RESPONDENT SYMBOL CARD E

6. On this card are five symbols for Drying. Could you tell me what meaning does each symbol convey starting from symbol 'a'

ASK FOR EACH SYMBOL ONE AT A TIME AND CIRCLE UNDER APPROPRIATE SYMBOL.

Symbol 'a'	Symbol 'b'	Symbol 'c'	Symbol 'd'	Symbol 'e'
1. Dry flat	1. Tumble dry/low/cool/in automatic dryer	1. Tumble dry medium high/hot in automatic dryer	1. Hang to dry soaking wet/drip dry	1. Hang to dry
X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____	X. Other (Specify): _____ _____
V. Don't Know	V. Don't Know	V. Don't Know	V. Don't Know	V. Don't Know

TAKE BACK SYMBOL CARD E AND HAND RESPONDENT SYMBOL CARD F

7. Finally, on this card are two symbols for ironing. Could you tell me what meaning does symbol 'a' convey?

ASK FOR EACH SYMBOL ONE AT A TIME AND CIRCLE UNDER APPROPRIATE SYMBOL.

Symbol 'a'	Symbol 'b'
1 Iron high/hot	1 Iron low/cool
X Other (Specify): _____ _____	X Other (Specify): _____ _____
V Don't Know	V Don't Know

TAKE BACK SYMBOL CARD F

IF "1" IS NOT CIRCLED ON LINE 'a' IN Q. 1, ASK:
SHOW SYMBOL CARD A

8. What was there about the symbols on line 'a' that might cause confusion?

IF "1" IS NOT CIRCLED ON LINE 'b' IN Q. 1, ASK:
SHOW SYMBOL CARD A

9. What was there about the symbols on line 'b' that might cause confusion?

IF "1" IS NOT CIRCLED ON LINE 'c' IN Q. 1, ASK:
SHOW SYMBOL CARD A

10. What was there about the symbols on line 'c' that might cause confusion?

IF "1" IS NOT CIRCLED ON LINE 'd' IN Q. 1, ASK:
SHOW SYMBOL CARD A

11. What was there about the symbols on line 'd' that might cause confusion?

IF "1" IS NOT CIRCLED ON LINE 'e' IN Q. 1, ASK:
SHOW SYMBOL CARD A

12. What was there about the symbols on line 'e' that might cause confusion?

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CACC / CCAC



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