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Comparability Problems of International Survey Data: The Example of Japan and Italy[1]

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The paper shows problems of comparability of data collected in Italy and Japan, which can be treated as proxies of Western and Eastern cultures, respectively. Following the theoretical and empirical comparison of these two cultures performed by Nisbett (2003), we predicted and tested the differences in the response styles on Italian and Japanese representative internet samples, as well as data collected in both countries as part of the International Social Survey Programme (1998, 2008). In almost all of the six question sets analyzed, the Japanese gave ***fewer extreme responses****, as well as* ***more "don't know"*** *responses than Italians.*

Keywords: "don't know" responses, extreme responses, International Social Survey Programme, east-west cultural differences, Japan, Nisbett.

Problem porównywalności danych sondażowych pochodzących z różnych krajów: przykład Japonii i Włoch

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Artykuł koncentruje się na problemie porównywalności danych sondażowych zebranych we Włoszech i Japonii, które mogą być traktowane jako przykłady kultur Wschodu i Zachodu. Teoretyczne i empiryczne porównanie tych dwóch kultur dokonane przez Nisbetta (2003) jest punktem wyjścia dla analizy różnic dotyczących stylu odpowiadania przeprowadzonego na włoskiej i japońskiej próbie reprezentatywnej oraz danych zebranych w ramach International Social Survey Programme (1998, 2008). W prawie wszystkich z analizowanych sześciu zestawów pytań Japończycy udzielali ***mniej odpowiedzi skrajnych*** *i* ***uchylali się od zajęcia stanowiska*** *istotnie* ***częściej*** *niż Włosi.*

Słowa kluczowe: odpowiedzi beztreściowe, odpowiedzi skrajne, International Social Survey Programme, różnice kulturowe pomiędzy Wschodem i Zachodem, Japonia, Nisbett.

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1. Introduction

Globalization introduces us to new challenges. Not only business connections, but also media and symbolic culture provide a possibility (or even necessity) to remain in close contact with the whole world. Formation of multicultural teams becomes more of a rule than an exception. However, fruitful international cooperation needs to be preceded by knowledge of similarities and differences between international partners. One of the sources of such knowledge are the comparative surveys performed concurrently in various countries. The aim of these comparisons is to detect the issues which are universal (e.g. the positive correlation between education and age of a respondent) or specific to a given country (e.g. the interaction effect between gender and the level of education explaining quicker educational promotion of women in 11 out of 31 analyzed countries – Wierzbiński, 2009). Unfortunately, such comparisons face serious obstacles, some of which will be discussed in this article.

2. Response style

Cross-cultural studies of attitudes usually involve comparisons of averaged responses to a set of questions. Such an approach assumes that respondents' answers are only dependent on the substantive meaning of the question. Usually an opinion is to be marked on a response scale provided by the researcher. Unfortunately, the choice of a response scale is often not preceded by thoughtful considerations. Response scales used in research differ in terms of length and the presence of the middle and "don't know" (also "difficult to say", "can't say", etc.) responses (Wieczorkowska-Wierzbińska & Wierzbiński, 2011). The fact that respondents are given a 5-point response scale, e.g. when **assessing the importance of various life goals**, does not necessarily allow expressing their own "private" differentiation scale. Their evaluation can be rougher or more subtle. One person may believe that "nothing is worth his/her effort" and answer the items using only the left side of the response scale (1 = completely unimportant; 2 = unimportant), someone else would only use options on the right side (3 = important; 4 = very important), and yet another person might tend to make use of all of the available options. Respondents must transpose their private response scales into the one provided by the researcher. This transposition determines their response style, which can be universal, i.e. relatively independent of the object of the assessment.

Item nonresponse (**missing responses**) is a nightmare of all researchers. In addition to refusals and omissions, answers such as "**don't know**" and "difficult to say" (which we will jointly name "don't know" – DK – answers) also pose many difficulties. "Don't knows" may appear in survey data in three types of questions:

- standard format questions (DK answer is not read by the interviewer, but marked if the response is given spontaneously),
- quasi-filter questions (available DK answers are read by the interviewer),
- full-filter questions (the actual question is asked only when a positive answer was given to the filter question, e.g. "Did you think about this issue?", "Have you got an opinion on this matter?"

Each of the three methods leads to obtaining different distributions of "don't knows" in the sample, which also depends on the content of the question, level of respondent's opinion crystallization, and perceived social expectations (socio-political correctness).

Interpretation of DK also creates many problems. Such answers may result from the lack of knowledge and/or indecisiveness, boredom with the interview, or willingness to avoid an uncomfortable question. Moreover, it may also suggest that the response scale does not contain any appropriate option. The number of DKs depends on the character of the question – it is **lower when an easily observable phenomenon** is investigated. For instance, answers to the question on the **frequency of prayer** (scale from "never" to "several times a day"; see Wierzbinski, 2009) contained **5.4%** of "Don't know" responses. However, when the frequency of **church** service **attendance** was explored, there were only **1.4**% of DK responses.

Studies by Krosnick et al. (2002) indicated that the number of **DKs** is **inversely** related to the measure of self-assessed **effort** put into answering the questions, which means that DKs may often result from laziness. However, an opposite motivation, occurring when respondents feel obligated to answer the question, may also be problematic. Embarrassment stopping a person from admitting the lack of knowledge on a given subject may lead to choosing an answer randomly or in accordance with the assumed expectations of a researcher or a social norm in operation. This effect is confirmed by the studies showing that people may sometimes express their opinions about non-existent objects (e.g. Hawkins and Coney, 1981) – this tendency is, however, reduced when a DK option is available. Sułek (2002) named such responses as "false responses". Survey authors are afraid of both too small and too large number of DKs, which is why they try to construct questions that do not encourage respondents to generate either "empty" responses or false DKs.

Respondents may be affected by the need for social approval (especially strong during interviews, e.g. Newman et al., 2002), manifested in the *Acquiescence Response Style* or – on the contrary – the need to present oneself as a non-conformist, manifested through *Disacquiescence Response Style* (Harzing, 2006). Literature also discusses the *Net Acquiescence Response Style*, computed as a difference between acquiescence and disacquiescence response styles (Baumgartner and Steenkamp, 2001).

A different response style involves transforming own response scale only into extreme values of the scale provided by the researcher. *Extreme*

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Response Style is sometimes interpreted as an indication of rigidity, intolerance to ambiguity, and dogmatism. It can be also related to higher levels of anxiety (Hamilton, 1968), even though fear of giving wrong answers should lead to using more midpoint responses. Such a style may also be regarded as an expression of less differentiated cognitive structures (Shulman, 1973) and is greater for personally important and emotionally involving stimuli (O'Donovan, 1965, cited by Baumgartner and Steenkamp, 2001).

3. Research problem: culture differences in response style

International social surveys are built on the assumption of the universal nature of human thinking and the main problem in the comparative research is the translation of the questions into different languages. The hidden assumption is that respondents in all countries share the same cognitive tools of perception, memory, causal analysis, categorization, and inference. The differences in their beliefs can be attributed solely to the differences in experience (being exposed to different aspects of the world; having been taught different things).

Nisbett (2003) in his seminal book "Geography of thought. How Asians and Westerners Think Differently…and Why" questioned the assumption of the universality of cognitive processes and proved that **indoctrination into distinctive habits of thought from birth could result in very large cultural differences in information processing.**

He compared the default cognitive processes of Westerners (the successors of Aristotelian tradition) and Easterners (the successors of Confucian tradition) and found quite large differences. Some of them are listed in the table 1.

In the paper we concentrate on one difference only: degree of acceptance for contradiction. Nisbett (2003, p. 175) described it in the following way: "Because the world is constantly changing, oppositions, paradoxes, and anomalies are continuously being created. **Old and new, good and bad, strong and weak exist in everything**. In fact opposites complete each other and make each other up. Taoists see the two sides of any apparent contradiction existing in an active harmony, opposed but connected and mutually controlling. "Tao is conceived as both 'is' and is not.' "

The differences in the two stances toward contradiction have some important consequences explored by Nisbett and his collaborators in many domains. For example, the data presented by him shows that Easterners have no trouble accepting apparent contradictions in their own emotions, like it was described by Confucius: **"When a person feels happiest, he will inevitably feel sad at the same time."** An empirical test shows that when describing a face of an unknown person, Asians are likely to report contradictory emotions (X looks somewhat "happy" **and** somewhat "sad") , while Americans are likely to choose one emotion (X looks "happy" **or** "sad").

Dimension of comparison	**Westerners (principally the nations of Christian origin)**	**Easterners (principally the people of China, Korea, and Japan)**
Perception of objects	Discrete objects attended to in isolation; strong interest in categorization, which helps to know what rules to apply to the objects in question; infants learn nouns at a much more rapid rate than verbs	Objects attended to in their broad context; disentanglement of an object from its surroundings found difficult; strong interest in relationships between objects; infants learn verbs at a much more rapid rate than nouns
Formal logic	plays an important role in problem solving. The principle of IDENTITY indicates cross-situational consistency: **A is A regardless of the context.**	have no trouble in its understanding, but are less likely to use it in everyday situations where experience or desire conflicts with it. Never separate logic from context and use experience more and logical principles less in judging propositions. The person who is too concerned with logic may be considered immature. The principle of HOLISM indicates that A can be **different in one context** than in another.
Degree of complexity of the world	Simpler: world can be understood in terms of straightforward rules	More complex: understanding events requires consideration of many factors that operate in relation to one another in no simple, deterministic way.
Agency	Highly developed PERSONAL agency	Highly developed COLLECTIVE agency
Debates	Have a highly developed **"rhetoric of argumentation"**	Emphasis on group belonging and contributing diminishes confrontation, debate, and curiosity. Rarely (if ever) engage in disputes, but try to negotiate solutions in the middle between A and B. Less likely to argue for the correctness of their theories in the same way as Western scientists commonly do.
Conflicts between A and B	Commonly resolved only in victory of A or B [choose one side of an argument].	Try to **negotiate agreeable solutions in the middle between A and B.**
Changes	Things do not change because they have properties, and properties cannot vary.	Emphasized flux, holism, complexity, and resonance. All things are to be understood in terms of their relationship to and embeddedness in their environments
Contradiction	Emphasized linearity, objectification, and elimination through contradiction. The law of **noncontradiction**, which holds that a proposition and its negation cannot be both true.	Emphasized circularity, holism, and acceptance of contradiction.
Source of logical error	Contradiction phobia	Lack of concern about contradiction and emphasis on the middle.

Tab. 1. Cultural differences in information processing. Source: The table was constructed by the authors based on the work presented by Nisbett (2003).

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The same happened when respondents were asked to rate their emotional states at the very moment and in general. American participants tended not to differentiate between NOW and "in general". The ratings made by Chinese and Korean respondents were uncorrelated both in intensity and the sign of emotion. For them, reporting strong positive emotions was fully compatible with expressing strong negative emotions.

In terms of response style, we expect that the difference could be manifested through a tendency to:

1) frequently avoid expressing an opinion, by choosing a "**Don't know**" response (**DK**);
2) avoid extreme (Extreme Response Style, ERS) rather than middle (Midpoint Response Style, MRS) responses on the scale.

To check this hypothesis, we decided to compare the formal characteristics of ratings by respondents from two countries that can be seen as representative of Eastern (Japan) and Western (Italy) cultures.

The choice of Italy was dictated by the interest of one of the members of the research team. Japan was chosen due to the clear differences, comparing to Italy, in individualism and uncertainty avoidance (higher level of both of these dimensions in Japan, according to Hofstede's classification) and similarities in terms of wealth (similar GDP), masculinity, and power distance (Johnson et al., 2005).

Taking into account cultural differences described above, we formed the following hypothesis: In comparison to Italians, the Japanese will give:

- more DON'T KNOW answers (DK),
- fewer EXTREME Responses (ER).

Because both numbers are content dependent, the hypothesis will be tested on 6 sets of items.

Although only few articles were found on the cross-cultural differences in the tendency to choose "Don't know" answers, the available data suggest that DKs are:

1) less often chosen by Americans than Europeans, when supplying personal income information (Smith, 1991);
2) less often chosen by Norwegians than Frenchmen and Poles, when a respondent does not know the answer to a question (Sicinski, 1970).

In terms of cross-cultural differences in preference for extreme responses, research suggests that extreme responses are chosen more often:

1) in the USA by Hispanics and Afro-Americans than Americans of European ancestry (Clarke, 2000);
2) by Americans and Canadians than the Japanese (Shiomi and Loo, 1999; Takahashi et al., 2002);
3) by Americans than Koreans (Chun et al., 1974; Lee and Green, 1991);
4) by Greeks than Italians and Spaniards, who – on the other hand – use extreme responses more often than the British, Germans, and the French (Van Herk et al., 2004).

On the other hand, a study performed on a large representative sample of consumers from 11 European Union countries (Baumgartner and Steenkamp, 2001) showed that in comparison to the variance observed between different sets of questions, the variance across countries was miniscule. This difference in reports encouraged us to investigate the differences in response styles operationalized through the number of "Don't know" and extreme responses in the analyzed data sets.

The response style formal characteristic analysis requires us to disregard the content of the questions. Analyses were, therefore, performed on two scales extracted from the internet study (20 questions with one response scale and 18 questions with a different response scale). Similarly, four sets of questions with differing response scales were chosen from the ISSP studies (two waves – 1998 and 2009).

4. Analyzed samples

The hypotheses will be examined based on the comparisons of the Italian and Japanese data focused on the reactions to financial crisis, gathered in 2009. Furthermore, the analyses will be expanded by including the data collected within the ISSP (International Social Survey Programme, 1998, 2008). ISSP is a cross-national program of recurrent comparative studies. It aims at performing a biennial survey in all member countries, following the same methodology and using the same sets of questions.

The details of the analyzed samples can be found in Table 2.

Study 1: Internet-based study of the Italian and Japanese representative samples (2009); Study 2: ISSP in 1998 and 2008 (the same items were repeated)

Sample	N	% Females	Age (M, s)	Education (M, s)
2009 **Italy**	797	51.1	45.90 (14.13)	13.02 (2.85)
2009 Japan	833	48.3	44.50 (13.27)	14.47 (2.04)
1998 + 2008 ISSP **Italy**	2031	50.6	48.43 (16.54)	10.45 (4.43)
1998 + 2008 ISSP Japan	2495	51.9	47.63 (16.95)	12.24 (2.63)

Tab. 2. Information on the analyzed data. Source: Analysis by Wieczorkowska, Wierzbiński, and Kuźmińska.

In both our internet studies as well as the ISSP survey (1998, 2008), the Italian sample was not different from the Japanese sample in terms of age and the proportion of female respondents. The comparison of education indicated, on the other hand, a significantly higher level of education among the Japanese subjects.

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The observed differences in education can stem partly from the differences in the education systems in these two countries. Although in both education is universal and compulsory (in Japan until a person reaches 15, in Italy – since 2006 – 16 years), there are differences relating to the length of each of the levels of education (Japanese Education, 2013; Italian Education, 2012). In Italy, the elementary school lasts for 5 years, lower secondary school lasts for 3 years, upper secondary school (or vocational school) – for 5 years, bachelor degree can be achieved in 3 or 4 years, and Master's degree in 2 years (altogether 18/19 years). In Japan, the elementary school is longer and lasts for 6 years, but secondary schools of both levels last for 3 years each. Bachelor degree can be obtained after 4 years of studying and Master's degree after additional two years (in summary 18 years).

Although the text is illustrated with the results of many analyses of the above data (see Table 2), details are limited in order to keep the argument clear and readable.

5. Results

Number of "Don't Know" (#DK) Responses

In the analyzed studies, "Don't know" answer was available on all of the response scales. Therefore, a **N**umber of **D**on't **K**nows (#DK) can be computed for each respondent in different question sets – the number of times the respondents used the opportunity to avoid expressing their attitude.

The next step involved checking the relationship between the number of DKs (logarithm of #DK) and respondents' country of residence, controlled for gender, age, and education[2]. The direction of observed differences is presented in Table 3 (sign "<" indicates that there were significantly more DKs in Japan than in Italy, sign "=" stands for an insignificant difference). For each analysis, Partial Eta Squared is reported in the last column. Performed analyses indicated that – with the exception of the first set of questions – **the Japanese used "don't know" responses significantly more often than Italians.**

Study	Number of questions (k)	Italy M(s)		Japan M(s)	Partial Eta Squared
1	Set I.1 k=18	1.25 (2.07)	=	1.39 (3.24)	0.000
1	**Set I.2** k=20	0.93 (2.17)	<	1.84 (4.17)	0.012
2	Set II.1 k=4	0.44 (1.04)	<	1.14 (1.58)	0.063
2	Set II.2 k =5	0.09 (0.45)	<	0.69 (1.23)	0.109
2	Set II.3 k=4	0.08 (0.39)	<	0.36 (0.91)	0.048
2	Set II.4 k=5	0.25 (0.63)	<	0.63 (1.09)	0.044

Tab. 3. Comparison of the number of „Don't know" responses (#DK) in Italy and Japan. Source: Analysis performed by Wieczorkowska, Kuźmińska and Wierzbiński.

Number of Extreme Responses (#ER)

For each of the six analyzed question sets, the number of extreme responses was computed for each respondent (e.g. "very likely" or "very unlikely", "Yes, definitely" or "No, definitely not", "Complete confidence", etc.). Prior to performing the analysis, respondents who used too many "don't know" answers within one set of questions were excluded. The term "too many" needs clarification. With regards to long question sets, it was decided to exclude those who answered DK in more than 50% of the questions; five-question sets – DK in more than two questions; four-question set – DK in more than one question.

In the next step, a relationship between the Number of Extreme Responses (#ER) [logarithm #ER] and respondent's country of residence (controlled for gender, age, and education) was investigated. Means and standard deviations of #ER and the direction of the observed differences are presented in Table 4 (sign "<" indicates that there were significantly more DKs in Japan than in Italy, sign "=" stands for an insignificant difference). For each analysis, Partial Eta Squared is reported in the last column. The performed analyses indicated that – with the exception of question sets II.2 and II.3 – **the Japanese used extreme responses significantly less often than Italians.**

Number of items (k)	Italy M(s)		Japan M(s)	Partial Eta Squared
Set I.1 k = 18	7.22 (3.48)	>	7.02 (3.54)	0.005
Set I.2 k = 20	9.61 (5.63)	>	5.77 (4.88)	0.067
Set II.1 k = 4	1.92 (1.69)	>	1.02 (1.49)	0.062
Set II.2 k = 5	1.47 (1.42)	<	2.57 (1.54)	0.109
Set II.3 k = 4	0.60 (0.99)	=	0.47 (0,83)	0.001
Set II.4 k = 5	3.00 (1.39)	>	1.66 (1.33)	0.169

Tab. 4. Comparison of the number of extreme responses (#ER). Source: Analysis performed by Wieczorkowska, Kuźmińska, and Wierzbiński.

6. Discussion and Interpretation

In the case of cross-cultural comparisons, which make random assignment to national groups impossible, the key issue is to eliminate the **alternative hypotheses**. Explaining the observed differences with culture is risky if one cannot say which specific aspects of a given culture correspond to specific differences. Adding the covariates to the analysis may prove to be a useful step. In the above analyses we controlled for the sociodemographic variables, which are known to affect the number of "don't know" answers.

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For instance, previous analyses of #DK in the studies assessing the level of institutional trust (Wierzbinski, 2009) showed that DK is more often chosen by 1) older adults, 2) women, 3) residents of villages than residents of cities, 4) less rather than more educated, 5) less rather than more wealthy, 6) not interested rather than interested in politics. Significant interaction effects of the sociodemographic variables were also obtained.

In the analysis of our data, correlations between the response type and sociodemographic variables are not that obvious in interpretation. Although the strength of the relationship between #DK/#ER and a country exceeded by an order of magnitude the strength of the relationship between these variables and sociodemographic variables, it is worth noting that[3]:

1) "don't know" answers were chosen more often by:
   a) younger adults in one set of questions,
   b) women in five sets of questions,
   c) less educated in four sets of questions;
2) extreme responses were chosen more often by:
   a) older adults in four sets of questions (but less often in one set),
   b) women in one set of questions,
   c) less educated in two sets of questions (but more often in one set).

Therefore, although the analysis focuses on formal characteristics of the response styles, it is evident that the content of the sets of questions need to be scrutinized (see Table 5).

Even if in general the Japanese are significantly **more** likely than Italians to use the "don't know" answer and **less** likely to use the extreme responses, this relationship was not confirmed for all analyzed sets. This is why it is valuable to analyze the content of the questions.

The analyzed sets of questions were concentrated on:

– I.1. – the reactions to the financial crisis in 2009 – a matter relevant during the year of the study (2009), as 55.8% of the Japanese and 49.2% of the Italians declared that their financial situation worsened during the last 12 months.
– I.2. – various action strategies, which may explain greater decisiveness among women, who are usually more interested in psychological self-description than men.
– [ISSP] II.1. – the belief in axioms related more to the **Catholic religion** than to Buddhism. Hence, 17.4% of the Japanese avoided answering these questions.
– [ISSP] II. 2 – the possibility of **guiding one's own life** (including the role of God) – the percentage of "don't knows" among the Japanese was lower.
– [ISSP] II.3 – **institutional trust** – although there is no obvious reason why the Japanese should be more likely to avoid answering such questions, this is what they did.
– [ISSP] II.4. – the matters of **morality** – sexual permissiveness and attitudes towards abortion.

# of items (k)	Response scale	Items
Set I.1 k = 18	1 – very unlikely 2 – rather unlikely 3 – rather likely 4 – very likely ? – Can't choose	Items referred to assumed reactions to the financial crisis of two persons – Adam (9 items) and Eve (9 items) – whose situation was presented in an introduction Exemplary item: "Adam will blame the banking system"
Set I.2 k = 20	1 – like X 2 – rather like X 3 – rather like Y 4 – like Y ? – Can't choose	Each item contained a description of behaviors typical for Person X and Person Y. Respondents were asked to indicate whether their own (re) actions would be more similar to those of person X or Y. Exemplary item: "X believes that success is a matter of luck. Y thinks that it is a result of skills and effort."
Set II.1 k = 4	1 – Yes, definitely 2 – Yes, probably 3 – No, probably not 4 – No, definitely not 8 – Can't choose	Do you believe in … 1. Life after death 2. Heaven 3. Hell 4. Religious miracles
Set II.2 k = 5	1 – Strongly agree 2 – Agree 3 – Neither agree nor disagree 4 – Disagree 5 – Strongly disagree 8 – Can't choose	Do you agree or disagree with the following… 1. There is a God who concerns Himself with every human being personally 2. There is little that people can do to change the course of their lives 3. To me, life is meaningful only because God exists 4. In my opinion, life does not serve any purpose 5. Life is only meaningful if you provide the meaning yourself
Set II.3 k = 4	1 – complete confidence 2 – a great deal of confidence 3 – some confidence 4 – very little confidence 5 – no confidence at all 8 – can't choose	How much confidence do you have in … 1. Parliament 2. Business and industry 3. Courts and the legal system 4. Schools and the educational system
Set II.4 k = 5	1 – Always wrong 2 – Almost always wrong 3 – Wrong only sometimes 4 – Not wrong at all 8 – Can't choose	1. Do you think it is wrong or not wrong if a man and a woman have sexual relations before marriage? 2. What about married person having sexual relations with someone other than his or her husband or wife, is it… 3. And what about sexual relations between two adults of the same sex, is it… 4. Do you personally think it is wrong or not wrong for a woman to have an abortion: a) if there is a strong chance of serious defect in the baby b) if the family has a very low income and cannot afford any more children

Tab. 5. Item sets used in the comparisons

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Therefore, a relatively obvious conclusion can be formulated – **the number of "don't knows" depends on the relevance the content of the question has for a given person**. However, in almost all of the six analyzed sets of questions, the Japanese used extreme responses less frequently and DKs more frequently than Italians.

As can be seen, survey questions require respondents to answer in accordance with the Western style of thinking. A greater number of "don't knows" and a lower number of extreme responses uncovered in our analyses among the representatives of the Eastern culture (the Japanese) when compared to the representatives of the Western culture (Italians) is consistent with this interpretation.

However, it seems worth noting that the greater number of DKs in Japan could also be explained by a different mode of ISSP **survey administration**.

Country	Year	Method	Gross sample size	Actual sample size	Response rate (%)
Japan	1998	Self-completion	1800	1368	76
Japan	2008	Self-completion	1800	1200	67
Italy	1998	Face-to-face interview	1369	1009	74
Italy	2008	CAPI (Computer assisted personal interview)	6900*	1078	16

Tab. 6. ISSP survey response rate in Japan and Italy (a value containing substitutions and additional sampling)*

As documented, in Italy the ISSP responses were collected via face-to-face interviews. The order of the questions and the time allowed for consideration was held constant for each respondent. In such interviews, an interaction effect between an interviewer and respondent was in operation (e.g. Zielinski, 2009). While answering the questions, respondents likely took into account – consciously or not – the impression their answers could have on the interviewer. In Japan, an interviewer left the survey at respondent's house for self-completion and came back to pick it up later. Hence, there was no control over the question order or response time. It could be expected that a **lower number of "don't knows"** would appear during a **face-to-face** interview than during **self-completion**. In this way, differences between Japan and Italy could be explained, but only those present in the ISSP, and not in the Internet study.

Admittedly, **no differences** in DK were found for the question set relating to the **financial crisis,** but it might be the case of question specificity (they referred to the matter which at that time was very relevant and asked about the reactions of other people, which made the questions appear less threatening). In the Internet survey, the speed and questions' order (return-

ing to previous questions is whenever possible) is completely dependent on the respondent. Although in the Internet studies the researcher can easily fix timing and order, it is usually not practiced.

Another, alternative interpretation of the obtained results may relate to the **cultural inadequacy** of some of the questions from sets II.1 and II.2 of the ISSP survey. Despite the experience and great care of the international team which prepared the ISSP questionnaire, an observable dominance of researchers coming from the Judeo-Christian background may be observed. When answering the questions on religion a person was raised in, 96.8% of Italians indicated Catholicism, 2.4% – atheism (no religion), and 0.5% – other religion. In Japan, atheism was declared by as many as 52.4% of the respondents, 31% indicated Buddhism, 2.9 % – other religion. The answer was refused by 25 Japanese (no Italians); "don't know" answer was chosen by only 3 Italians and as many as 317 Japanese respondents.

These **differences in religiosity** suggest that the questions related to the belief in religious miracles, Bible[4], the role of God, etc. might have been regarded as impolite, incomprehensible, or not thought through and – as a result – influenced not only this particular response, but also the responses to all the other questions. It has to be remembered that each question plays a hidden role – it is supposed to induce cooperation. Questions relating to religion did not play such a role in Japan. Still, such interpretation is not helpful in explaining the observed differences in the number of "don't knows" in the Internet survey or the differences in the number of extreme responses in both of these studies.

Moreover, it is worth adding that when questions on **reincarnation** and Nirvana were added to the ISSP survey in **2008**, even though these questions received more positive answers ("yes, definitely" and "yes, probably") in Japan (8% + 34.1% for reincarnation; 5.9% + 30.4% for Nirvana) than in Italy (reincarnation: "no, definitely not" – 34.9%; "no, probably not" – 27.5%; Nirvana: 34.1% and 19.6%, for each of the answers, respectively), **the number of DKs was still higher in Japan** (24.2% for reincarnation and 36.3% for Nirvana) than in Italy (13.8% and 31.7% for reincarnation and Nirvana, respectively).

The rejection of alternative explanations inclines us to acknowledge observed cultural differences in response styles as a valid factor, in particular modifying the influence of the questions' content. However, it is worth emphasizing that both the number of "don't knows" and the number of extreme responses correlated across different question sets indicate that both of those inclinations should be analyzed as a characteristic **of the subject's response style,** and not only as a characteristic of a question. A failure to account for the differences in response styles may lead to flawed conclusions, as it was shown in the study comparing Polish and German teenagers (Wieczorkowska, 1993), as well as in the marketing research (Baumgartner and Steenkamp, 2001).

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Endnotes

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[2] Distribution of the number of "don't know" responses is usually positively skewed, which makes data analyses more difficult. Linear models of such data are matched on the basis of distributions from the Poisson's family. Due to the excessive dispersion, Jerzyński (2008) employed models based on the generalized linear model with negative-binomial link function and showed that they lead to obtaining the same conclusions as the methods which require satisfaction of the assumption of normality of the distribution of the analyzed variables. A failure to meet the assumption of normality exposes us to the risk that the obtained estimators may be inaccurate, but the aim of the analyses performed here is not the estimation of population parameters, but the comparison of the values of statistics in various data sets. The distortions related to the failure to meet the assumptions affect all the results to a similar extent. In order to reduce the level of positive skewedness of the distributions of the dependent variables, logarithms of the number of responses were used in the statistical tests.

[3] Only the relationships with regression coefficient significantly different from zero are reported.

[4] The main Japanese religions (Buddhism and Shinto) have no sacred texts comparable to the role of the Bible in Christianity.

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